Compensationy Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi



MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY FARIDABAD FOREST DIVISION (T) AND COMMUNITY FOREST DIVISION IN FARIDABAD DISTRICT OF HARYANA

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Draft Final Report

Submitted to

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANAVAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA

February, 2015

Canducted by

LOCUS RESEARCH & CONSULTANTS PVT. LTD.

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Faridabad Forest Division (T) in Faridabad District of Haryana (2013-14)" was successfully completed. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

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I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly indebted to Mr. BKP Sinha (IFS retd.), PCCF. UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

New Delhi, February, 2015



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Preface

Compensatory_Afforestation_Fund_Management_and_Planning_Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates......a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds, it will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Acr, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana of Faridabad forest division by PCCF office on professional terms and conditions. Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

During 2013-14 a total 70 RKM forestland was treated by adopting CA (40 RKM) and NPV (30 RKM) plantation schemes. It was implemented in both the ranges of Faridabad forest division i.e. Faridabad (39RKM) and Ballabgath (31RKM). Total expenditure incurred in the entire project during 2013-14 was Rs 30.92 lakh against the target of Rs. 32.92 lakh. Altogether thirteen (13) assets were created in the project such as plantation work at twelve (12) places and construction of forest guard quarter at one place.

As discussed above a total of 70 RKM forestland as well as government land was treated at twelve sites in the division by adopting CA/Tall Plant and NPV/Ridge Plantation schemes. 0.25 takh plant species of Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, were, etc. adopted in the project. Average height of plantation was 7 feet. Average grading awarded after thorough evaluation of CAMPA programme was 6.5 (on 1 to 10 scale), which was very good.

Members of evaluation team interacted with a number of field level forest staff and local community in the process of field inspection and evaluation of the programme. At most places local people were happy with the efforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of fund was smooth as reported by the project authority. There was lack of awareness and not ready to own responsibility on public related issues among the local people. Overall outcome of the programme was setisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

February, 2015



Locus Research & Consultants Pvt. Ltd.

ACRONYMS

ACF Assistant Conservator of Forests

Afforestation

APCCF Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee

CF Conservator of Forests
CN Compartment Number
CPT Continuous Protection Trench

DCF Deputy Conservator of Forests
DFO Divisional Forest Officer

DG-Forests Director General Forest
DWLO Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Entry Point Activity

FDA Forest Development Agency
FGD Focus Group Discussion
FTC Forest and Tree Cover
GOI Government of India
GPS Global Positioning System

Faridabad Division (T) Faridabad Forest Division Territonal

Ha Hectare

JFMC Joint Forest Management Committee

M & E Monitoring & Evaluation
MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme
NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

PF Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Mometer
RO Range Officer
SC Scheduled Castes
SF Social Forestry

SMC Soil & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Village Forest Committee

LOCAL NAME AND BOTANICAL NAME OF PLANT SPECIES

SL No.	Common Name	Botanical Name
1.	Alstonia	Indian Mallow/ Devil Tree
2.	Arjun	Terminalia arjuna
3.	Bakain	Melia azedarach
4.	Blam Kheera	Kigelia pinnata
5.	Gular	Ficus glomerata
6.	Gulmohar	Delonix regia
7.	Karanj	Pongamia pinnata
8.	Kachnar	Bauhinia variegate
9.	Kikar	Acacia Arabica
10.	Neem	Azadirecta indica
11.	Papri	Holoptelea integrifolia
12.	Pilkhan	Ficus virens
13.	Pipal	Ficus religiosa
14	Shisham	Dalbergia sissoo

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2013-14 Faridabad Forest Division in Faridabad District of Haryana

Average Grading on a Scale of 1 to 10									
hem Project Components Value									
Quantitative Aspects	Physical	10							
	Financial	ė							
Qualitative Aspects	Survival	5							
	Health of Plantation	. 8							
	Maintenance	6							
	Sustainability	6							
JFM	Degree of Peoples' Parlicipation	5							
	Satisfaction over Perceived Benefits by the Local Population	6							
Overall Grading (Very Goo	d)	6.6							

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of State CAMPA, Haryana of Faridabad Forest Division (T) in Faridabad district was conducted in the month of January 11-14, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency. During 2013-14, a total of 70.0 RKM forestland was treated by adopting NPV (30.0 RKM) and CA (40.0 RKM) plantation schemes at 12 places along with creation of asset at one place. There was 100% coverage of project areas and assets during field visit and analysis. Summary of findings of the study is given below.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Panchkula.

3.0 OBJECTIVES OF THE NAP

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory afforestation;
 - Iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION / AREA OF MONITORING & EVALUATION

It covers Faridabad Forest Division (Territorial) in Faridabad district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2013-14.

5.0 NEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 METHODOLOGY AND SAMPLE SELECTION

There was cent percent (100%) coverage area (70 RKM) and project activities carried out by CAMPA at Faridabad during 2013-14. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, row counting of plants was adopted.

9.0 PROFILE OF THE STUDY AREA

- The state of Haryana comprises 21 districts, 45 sub-tehsils, 47 subdivisions, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.15% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- As per India State of Forest Report-2011, Faridabad district has 4.32% area under forest cover.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- During 2013-14, a total of 70 RKM forestland treated by adopting NPV (30.0 RKM) and CA (40 RKM) schemes of plantation with a total expenditure of Rs 30.96 lakh against the target of same amount.
- A total of 0.25 lakh plant species of Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, Shisham, etc. were planted in the project.
- Average survival percentage of seedlings estimated was 69%. It was highest at R.F Alipur site/VFC (84%) while it was lowest at Hardhandrapur forestland site (61%). Average height of plantation was 7 feet, Growth and health of plantation was good.
- A two room forest guard hut/quarters with tollet cum bathroom, kitchen and overhead water tank (500 liters) was constructed at Pratapgarh Forest Complex of Ballabgarh forest range in the division.

- Important registers maintained in the project were work register, cashbook, sketch map, etc. Plantation
 journal was not available but the DFO assured us that plantation journal would be prepared very soon.
- The system of Monitoring and Evaluation (M & E) of CAMPA is conducted by a separate wing called M & E Wing. It is conducted either once or twice a year as reported by the project.
- In 2013, an agency named <u>Agricultural Finance Corporation Ltd.</u> of Delhi carried out last evaluation of CAMPA work of the duration of 2010-11 and 2011-12. Overall finding of the study was satisfactory.
- Bank account of CAMPA Programme of Faridabad forest division was in the name of Divisional Forest
 Officer (DFO) with Corporation Bank at Faridabad Branch along with two ranges.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Main factors led the selection of species were nature of topography, soil type, climate, rainfall, sultability
 of species in the area, economic value of plant species, preference shown by local community, etc.
- There was significant improvement in soil moisture conservation where plantation carried out under CAMPA programme.
- Estimated survival percentage of plantation carried out during 2013-14 was 69%. It was highest at R.F.
 Alipur (84%) while it was lowest at Harchandrapur (61%).
- Overall quality of work especially plantation and creation of assets in the programme was found in good shape at majority locations as observed during field inspection.
- Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.
- Mostly barbed wire and bush fending was found at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were also adopted along with barbed wire in this regard.
- There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

- Open grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2013-14 of CAMPA programme implementation.
- ♦ Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It impacted quality and outcome of the programme adversely.
- Due to high rate of urbanization and industrialization in most part of the project area, there was high demand of labour force and hence the forest department had to face shortage of labour.
- Range offices were facing shortage of necessary vehicle and infrastructure as reported. It impacted
 performance and quality of work as well as outcome of project.

Biotic and natural factors like damage caused by wild animals like, rabbits, blue buils and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. Impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Long term measures should be adopted to check grazing problem. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- The project authority should make necessary provision of protection and maintenance of plantation by adopting multi-pronged strategy. It is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to
 ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community.
- Workshops and Capacity building programmes should be organized by involving field level forest staffs,
 local community to learn new ideas and better knowledge.
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF and two DFOs.
- There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad-natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.
- Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthler environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

CHAPTER-1

PROJECT CONCEPT, STRATEGY, OBJECTIVE AND METHODOLOGY

1.1 CAMPA : An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.; a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and Industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators.
- Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chalmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10° 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - A state-level CAMPA Governing Body under the chalmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - iii. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- ◆ There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.

- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:
 - i. Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation:
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Details of Establishment, State CAMPA

- The details of establishment of State CAMPA are summarized below :
- a) The State Government may establish the Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - Amount transferred to it by the ad-hoc CAMPA.
 - Receipt of all monles from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The State Government may also credit to the State CAMPA
 - Grants or aid received if any;
 - Any loan taken by the Authority or any borrowings made by it; and

- Any other sums received by the Authority by way of benefaction, gift or donations.
- c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 Establishment of State CAMPA, Haryana

- On March 3, 2010, Haryana Government constituted the State Compensatory Afforestation Fund Management and Planning Authority (STATE CAMPA), Haryana for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.
- State CAMPA, Haryana will have three bodies, namely a Governing Body, a Steering Committee and an Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members, Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a penod of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-II), Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the State Government for a period of two years will be its Members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State Compensatory Afforestation Fund Management and Planning Authority" (CAMPA) is intended as an instrument to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

- The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife conservation and protection and other related activities and for matters connected therewith or incidental thereto.
- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of CAMPA Programme

- Conservation, protection, regeneration and management of existing natural forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- Compensatory afforestation;
- Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
- · Science, Research, Training and Capacity Building.
- Environment Protection and Sustainable Forest Management.

1.5 Geographic Location / Area of Monitoring & Evaluation

 The evaluation study covers Faridabad Forest Division (Territorial) in Faridabad district of Haryana.

1.6 Reference Period of Monitoring & Evaluation

The reference period of monitoring & evaluation CAMPA is one year, i.e. 2013-14.

1.7 Components of Project

- People's Participation
- Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
- Monitoring and Evaluation of the programme.
- Conservation and protection of forests, infrastructure development, wildlife conservation and protection and related activities.

1.8 Details of Project Implementing Agency and Proposed Activities of the Programme

A brief outline of the project agency and programme implementation is given below in table-12

Table 1.2; Project Implementing Agency and Proposed Activities of the Programme

Project Implementing Agency		Facilità la ad
District	:	Faridabad
◆ Forest Division	:	Faridabad ,
◆ Forest Circle	:	Gurgaon Circle, Gurgaon
♦ State	:	Haryana ·
Project Location	-	· · · · · · · · · · · · · · · · · · ·
♦ Watersheds/Sub-watersheds	:	Harchandarpur Distributary RD 12-20, Rampura Distributary RD 0-12 Sikari Distributary RD 0-12
Development Blocks	;	Faridabad, Bopani, Suraj Kund and Pali (Faridabad Range), Ballabgarh, Sikrauna, Dayalpur and Tigaon (Ballabgarh Range)
• Forest Ranges -	:	Faridabad and Ballabgarh
 Villages/Project Site 	;	13 (Thirteen)

Preparation of Micro-plan and Plantation Journal if any: Plantation journals were found but there micro

plans were not available. It was not necessary in the CAMPA program as reported by project Authority. Project Duration, Area and Cost

◆ Project Duration : 2013-14

◆ Project Area : Target: 70 RKM Achievement: 70 RKM

♦ Project Cost : Target, Rs. 31.92 lakh, Achievement: Rs. 30.92 lakh.

Proposed Strategies and Salient Features of the Project

- Plantation Schemes: NPV and CA
- Important community assets created in the project: Construction of Forest guard but / quarter at Pratapgarh Forest Complex in Ballabagarh range of the division.

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

Scope of study is confined to Farldabad Forest Division (T) in Faridabad district of Haryana.

1.11 Objectives of Monitoring & Evaluation

Main objectives of the monitoring & evaluation are as follows:

- · To assess physical and financial targets and achievements
- To evaluate performance of the programme
- To estimate of survival percentage of plant species adopted in the project.
- To analyze factors impacting plantation survival and suggest remedial measures.
- · To assess peoples' participation and assets created
- To assess the direct and indirect benefits and impact of the programme.
- To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure

- Research methodology forms both desk review and field Studies. Both quantitative and updatitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.

1.13 Sample Selection, Size and Distribution

- Cent percent coverage of plantation area and other project assets was made during field visit in the process of evaluation of CAMPA programme during 2013-14. A total 70 RKM forestland was treated by adopting two schemes of plantation namely Net Present Value (30.0 RKM) and Compensatory Afforestation (40.0 RKM) at 12 places. Besides, there was construction of forest guard but at one place. The project activity was spread over both the forest ranges of the division namely Faridabad and Ballabgarh.
- To estimate survival rate of plantation a sample unit/plot/grld of 0.25 ha (50mx50m) was adopted for counting them at random locations in the plantation area.

1.14 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the Project Concept, Strategy Objectives and Methodology.
 - Chapter-2 gives the Profile_of_the_Project_Area and its Location.
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative_Analysis_and_Findings.
 - Chapter-5 deals with Limitations and Constraints of the Project.
 - Chapter-6 provides Suggestions_and_Recommendations_for Improvement.

1.15 Limitations_of_the_Evaluation_Study

- It hard to find respondents at both rural and urban areas of project implementation. It impacted collection necessary information.
- Lack of necessary awareness among community about details of CAMPA also impacted collection of necessary information. However, adequate efforts were made by members of evaluation team to minimize these limitations.

CHAPTER-2

PROFILE OF PROJECT AREA

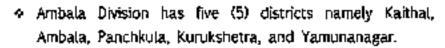
2.1 State Profile

 The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambata Division, Hisar Division and Gurgaon Division. The state

HARYANA

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comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.

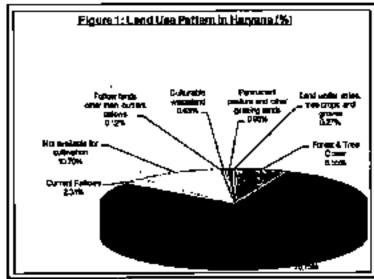


- 4 Gurgaon Division has six (6) districts namely Palwal, Faridabad, Mahendragarh, Gurgaon, Rewari, and Mewat districts in its jurisdiction.
- While Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Sirsa districts.
- And Rohtak Division has also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonipat districts in its jurisdiction.

2,1,1<u>Land Use Pattem of Haryana</u>

• Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.

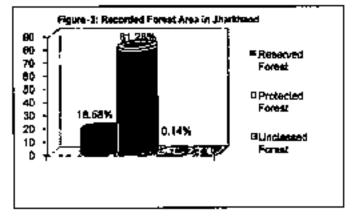
 Haryana is an agricultural state and 81.80% ls. under about land cultivation/Net sown area followed by not available for cultivation (13.11%), Current fallows (2,40%), Permanent grazing pasture and other (0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land



Use (India State of Forest Report 2011, FSI Dehra Dun).

2.1.2Recorded Forest Area In Haryana

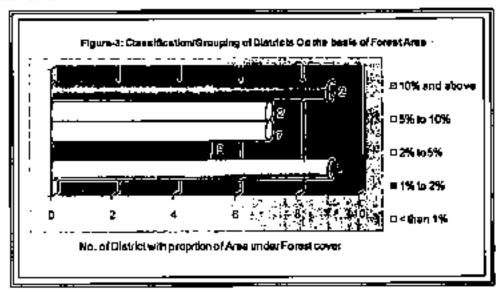
- ◆ The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. See Figure-2.

2.1.3 <u>District_wise_Distribution_of_Forest_Area_in_Haryana</u>

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group=1: Two districts namely Punchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group-2: two districts namely Gurgaon (8.35%) and Mewat (8.35%) fall in the category of 5% to 10% forest cover.
- Group-3: It followed seven districts namely Faridabad (4.32%), Palwal, Bhiwani, Ambala, Rewari, Mahendragarh and Kaithal fall in the category of 2% to 5% forest cover.



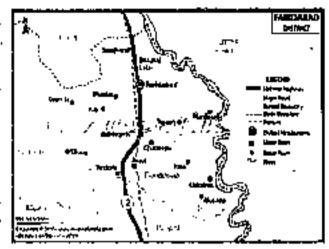
- Group-4: On the other hand 9 districts namely Hisar, Jhaljar, Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat have 1% to 2% geographical area under forest cover.
- Group-5: Fatehabad is the only district which has less than 1% area under forest cover. Refer Figure-3 for pictorial understanding.

2.2 Profile of Faridabad District

History: Faridabad District came into existence on 15 August 1979 as the 12th district of the state. It was carved out from erstwhile Gurgaon district. Faridabad, the south-eastern district in the state of Haryana, was founded in 1607 AD by Farid, the treasurer of Jahangir, with the object of protecting the Grand Trunk Road (now National Highway 2), which passed through the town. Sheikh Farid built a fort, a tank and a mosque, which are now in ruins. Later on, it became the headquarters of a Pargana, which was held in jagir by Ballabgarh ruler.

Geography: Faridabad is located at 28.43°N 77.32° E longitude, it has an average elevation
of 198 metres (649 ft). City is located on the plains of river Yamuna. It is bordered by the

Yamuna to the east and Aravali hills towards the west and southwest. Today, virtually all of the land has been developing with residential housing as the population of the city swelled during the mid-1990s. Much like the rest of India, the people of Fandabad rely on the ground water for their basic needs, which is the gift of good monsoon Unlike Gurgaon, which is prone to direct hot winds coming from (in Rajasthan), Faridabad is blessed because of Arayati Range Mountains between Gurgaon and



Faridabad blocking hot summer winds to enter its geographical space. Faridabad is the largest city in the north Indian state of Haryana, in Faridabad district. It is a leading industrial center and situated in the National Capital Region (India) near the Indian capital New Delhi. It is located between Delhi, Nolda, Greater Noida and Gurgaon. It is surrounded by Delhi to its North, Noida to its North East, Greater Noida to its East and Gurgaon to its West. Faridabad enjoys a prime location both geographically and politically. The river Yamuna forms the eastern district boundary with Uttar Pradesh. Faridabad is also a major industrial hub of Haryana. About 50% of the income tax collected in Haryana is from Faridabad and Gurgaon.

- Climate: The climate of Faridabad district can be classified as tropical steppe, hot semi-arid (Köppen BSh) which is mainly characterized by the extreme dryness of the air except during monsoon months. During three months of south west monsoon from last week of June to September, the moist air of oceanic penetrate into the district and causes high humidity, cloudiness and monsoon rainfall. The period from October to December constitutes post monsoon season. The cold weather season prevails from January to the beginning of March and followed by the hot weather or summer season which prevails up to the last week of June. The normal annual rainfall in Faridabad district is about 542 mm (21.3 in) spread over 27 days. The south west monsoon sets in the last week of June and withdraws towards the end of September and contributes about 85% of the annual rainfall. July and August are the wettest months 15% of the annual rainfall occurs during the non-monsoon months in the wake of thunder storms and western disturbances.
- Population: As per provisional data of 2011 census Faridabad had a population of 1,404,653, out of which males were 750,445 and females were 654,207. The literacy rate was 84,88 per cent.

2.3 Forest Cover in Faridabad District

As per India State of Forest Report-2011, Fandabad district has 4.32% area under forest cover against 3.64% (6.80% both forest & tree cover) of state average. Main plant species adopted under CAMPA programme in the district are Alistonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, Shisham, etc.

CHAPTER-3

QUANTITATIVE EVALUATION AND FINDINGS

3.1 Classification of Area Covered/Treated

• Altogether 70 RKM forestland was treated under CAMPA by adopting Compensatory Afforestation (40 RKM) and Net Present Value (30 RKM) plantation schemes. It was implemented in both the ranges of the division i.e. Farldabad (39RKM) and Ballabgarh (31RKM). Under CA scheme mostly tall plants were planted while under NPV scheme ridge plantation method was adopted. Refer table-3.1 as given below for detailed information.

		Table 3.1 An	ea Covered/Tr	eated Under CAMPA		
No ST	Range	Plantation/Project Site	Land Category	Scheme of Plantation	Anea In RKM	Y ear of Plantation
1	Faridebad	R.F. Alipur	Forestland	NPV /Ridge Plantation	19	
2	Fanidabad	Faridabad Bye Pass Road	Forestland	CA Tall Plantation/Gap Planting	20	
		•	Sub Total		39	
3	Ballabgarh	Ohoj Bundh O to tali	Forestland	MPV (Ridge Plantation)	. 5	İ
4.	Bailabgarh	B/garh Pali Sohna road 9-20 L&R	Forestland	NPV (Ridge Plantation)	9	
			Sub Total		11	
፯	Ballabgarh	Alampur Tikri Khara Road 0-2	Forestland	CA (Tall Plantation)	1.5	l '
6.	Ballaiogarh	Sirohi Jakopur Firojpur 0-5	Forestland	CA (Tall Plantation)	4	l :
7.	Ballabgarh	Dhoj Fatehpur Tega Road 0-4	Forestland	CA (Tall Plantation)	3	2013-14
8.	Ballabgarh	Sikri Distributary RD 0-12	Forestland	CA (Tall Plantation)	, 3	
g.	Ballabgarh	Dhoj Crusher Zone Road 0-1	Forestland	CA (Tell Plantation)	0.5	1
10.	Ballabgarh	Sirohi Bijopur Road 0-3	Forestland	CA (Tall Plantation)	2]
11.	Ballabgarh	Harchandour Distributary 12-20	Forestland	CA (Tall Plantation)	3]
·12.	Ballabgarh	Rampura Distributary 0-12	Forestland	CA (Tall Plantation)	3]
			Sub Total		20]
			Grand Total		70]
13.	Ballabgarh	Forest Colony, Pratapgàrh	Forestland	Construction of Forest Guard Hut/Quarter		<u> </u>

3.2 Physical and Financial Target/Achievements

◆ Total expenditure incurred in the entire CAMPA project during 2013-14 was Rs 30.92 lakh against the target of Rs. 32.92 lakh. Altogether thirteen (13) assets were created in the project such as plantation work at twelve (12) places and construction of forest guard quarter at one place. Refer table 3.2 for detail information about expenditure.

		Table-3.2: Physical and Financial T			13-14)		
ŠL	l Proper	Plantation/Project Sits	Physical (Area in he) Financial (Rs. in takh)				
No.	Range.	ranamonyriojam am	Target	Achievement	Tanget	Achievement	
1	Feridabad	R.F. Alipur	19 RKM	19 RKM	6,27	6.27	
2	Faridabad	Faridabad Bye Pass Road	30 KKM	20 RKM	7.67	7.67	
3	Ballabgarh	Dhoj Bundh.0 to Tail	2 RKM	2 RKM	0.66	33.0	
4	Ballabgarh	Ballebgarh Pali Sohna road 9-20 L&R	9 RKM	9 RKM	2.97	2.97	
5	Ballabgarh	Alampur Tikri Khera Road 0-2	1.5 RKM	1.5 RKM	0.57	0.57	
6	Ballabgarh	Sirohi Jakopur Firojpur 0-5	4 RKM	4 RKM	1.53	1,53	
7	Ballabgarh	Dhoi Fatahpur Tega Road 0-4	3 RKM	3 RKM	1.15	1.15	
8	Ballabgarti	Sikri Distributary RD 0-12	3 RKM	3 RKM	1.15	1.15	
9	Ballabgarn	Dhoj Crusher Zone Road 0-1	0,5 RKM	D.5 RKM	0.19	0.19	

Monitoring & Evaluation of CAMPA being Implemented by Faridabad Forest Division in Fundabad District of Haryana (2013-14)

10	Ballabgarh	Sirohi Bijopur Road 0-3	2 RKM	2 RKM	0.76	0.76		
11	11 Ballabgarh Harchandpur Distributary 12:20			3 RKIM	1.5	1.5		
12	Ballabgarh	Rampura Distributary 0-12	3 RKM	3 RKM	1.5	1.5		
		Total	70	70	25,92	25.92		
		Other Activities	Assets Create	म्प				
13	13 Ballatingarh Construction of Forest Guard Hut/Querters 6.0							
	Grand Total 31.92 30.92							

3.3 Inventory/ List of Plantation

As discussed above a total of 70 RKM forestland as well as government land was treated at twelve sites in the division by adopting CA/Tall Plant and NPV/Ridge Plantation schemes. 0.25 lakh plant species of Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, Shisham, etc. adopted in the project. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

	Table-3.3: Inventory /List of Plantation										
SL No	Rainge	Plantation/Project Site	Scheme of Plantation	Area (RKM)	Ho. of plants	Name of Plant Species	Year of Plantation				
1	Farldahad	R.F. Alipur	Ridge	19	9500	Papri, Alstonia, Shisham					
2	Faridabad	Faridabad Bye pass road	T.P.	20	5000	Papri, Alstonia, Gullar, Pikhan					
3	Ballabgarfi	Dhoj Bundh	Ridge	2	1000	Papri	i .				
4	Ballabgarh	Ballabgarh Pali Sohna road	Ridge	9	4500	Papri	1				
5	Ballabgarh	Alampur Tikri Khera Road 0-2-	T.P.	1.5	375	Papri					
6	Ballabgarh	Strohi Jakopur Fwojpur 0-5	T.P.	4	1000	Papri, Alstonia, Bakain	2013-14				
7	Ballabgarh	Dhoj Fatehpur Tega Road 0-4	T.P.	3	750	Papri	2013-14				
8	Ballabgarti	Silori Distributary RD 0-12	T.P.	3	750	Papri					
9	Ballabgarn	Dhol Crusher Zona Road 0-1	T.P.	0,5	125	Paprt, Pipat					
10	Ballabgarn	Sirohi Bijopur Road 0-3	T.P.	2	500	Alstonia					
11	Ballabgarh	Herchandpur Distributary12-20	T.P.	3	750	Papri					
12	Ballabgarh	Rampura Distributary 0-12	T.P.	3	750	Papri					
		Total		70,	250 0 0						

3.4 Analysis of Plantation and Survival Assessment

- The entire project area with 70 RKM of plantation at 12 places creation forest guard hut were covered in the process of monitoring and evaluation of the programme of Faridabad Forest Division. Nine plantation sites belonged to CA/Tall Plantation scheme while one plantation site belonged to NPV/ Ridge plantation scheme.
- Average survival percentage of seedlings estimated was 69%. The survival percentage was









highest at R.F. Alipur (84%) while it was lowest at Harchandarpur distributary (51%). Average height of plantation was 7 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.

		Table 3.5 Analysis of Plantati	on and Proje	oct Assats a	nd Surviva	l Assasamer	ŧŧ	
SL No.	Range	Plantation/Project Site	Schame	Area RKM	No. of Plants	Plants Survived	Survival (%)	Year
1.	Farldabad	R.F. Alipur	Ridge	19	9500	8075	85	
2.	Faridabad	Faridabad Bye pass road	T.P.	20	5000	3550	71	
3.	Ballabgarh	Choj Bundh	Ridge	2	1000	740	74	
4.	Ballabgarh	Ballabgarh Pall Sohna road	Ridge	9	4500	2835	63	
5.	Ballabgarh	Alampur Tikri Khera Road 0-2	TP	1.5	375	248	66	
6.	Ballabgarh	Sirohi Jakopur Firojpur 0-5	T.P.	4	1000	690	69 .	
7.	Ballabgerfi	Dhoj Fatehpur Tega Road 0-4	T.P.	3	750	503	67	2013-14
8.	Ballabgarh	Sikri Distributary RD 0-12	T,P,	3	750	. 518	69	
9.	Ballabgath	Dhoj Crusher Zone Road 0-1	T,P,	0.5	125	81	65	
10.	Balletgarh	Strotii Bijopur Road 0-3	T.P.	2	500	- 330	66	
11.	Ballabgarh	Harchandpur Distributary 12-20	T.P.	3	750	458	61	1
12.	Ballabgarh	Rampura Distributary 0-12	T.P.	3	750	510 '	- 68 _~	
		Total		70	25000	18536	69.00	

3.5 Analysis of Other Activities of the Project

Construction of a two room forest guard hut/quarters with toilet cum bathroom, kitchen and overhead water tank (500 liters) was completed at Pratapgarh Forest Complex of Ballabgarh range in the division during 2013-14. Total expenditure incurred on it was Rs. 6 lakh. However, Rs. 1 lakh was spent during last financial year (2012-13). Refer table 3.5 as given

above along with for detail information in this regard. Also see photograph of the pucca but on the right side.



	Table 35	Dotale of Ass	em Created through CAN	PA (2013-	20140					
9	Forest	Gasas	Details of Asset	Fire	ncjal (RL)					
*	Di visi on	Range	Creaced	Target	Achievement					
1.	Faridabad	Ballabhaah	Construction of	6Lakh	5 Lakh					
	Forest Guard Quarter									
	•	Total	_	€ takh	5 ևաևև Ն/					

3.6 Registers/Records Maintained in the Project

Important registers maintained in CAMPA scheme were work register, cashbook, sketch map, etc. Plantation journal was found missing at all the plantation sites covered in the CAMPA project. However, the DFO of the division Ms Renjitha assured us that plantation journal would be prepared very soon for all the plantation sites of CAMPA.

3.7 Monitoring and Evaluation System Adopted in the Project

The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate wing called M & E Wing, it is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana of Faridabad forest division was conducted in October 2014. The M & E wing consists of one conservator

of forest (CF) and two Deputy Conservator of Forest (DCF), its head office is at Kamal in Haryana quarters. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state.

3.8 Involvement of Independent Agency for Evaluation of CAMPA

❖ The project authority reported that an independent agency named Agricultural Finance Corporation Ltd. based in Delhi carried out last evaluation of CAMPA work for the duration of 2010-11 and 2011-12, it was conducted in 2013 and overall finding of the study was satisfactory.

3.9 Bank Account Details and Flow of Funds

Bank account of CAMPA Programme of Faridabad forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Faridabad Branch. Apart from this there were two other bank accounts for ranges of the division namely Faridabad Range and Ballabgarh Range. These bank accounts were also with the same Corporation Bank at Faridabad branch. Flow of funds was smooth as reported and information gathered from the stakeholders.

CHAPTER-4

QUALITATIVE ANALYSIS AND FINDINGS

4.1 Preference_and_Basis_of_Species_Selection

Important factors in the selection of plant species were nature of topography, soil type, climate, rainfall, suitability of species in the area, economic value of plant species, preference shown by local community, etc. However, the project authority took final decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation.

There was significant improvement in soil moisture conservation at all those places where plantation carried out under CAMPA programme. However, it was reported that due to limited provision of funds on this head of the programme did not provide much options for the project authority to carry forward additional work.

4.3 Assessment of Survival Percentage and Methodology.

- After thorough evaluation of the programme the estimated survival percentage of plantation carried out during 2013-14, was 69%. It was highest at RF Alipur (84%) while it was lowest at Harchandarpur Distributary (61%). Average height of plantation was 7 feet with average to good growth and health.
- A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, row counting of plants was adopted for survival assessment. Information gathered through interviews with various stakeholders of the project, observations and experiences of members of evaluation team, etc. were taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

There was very little natural regeneration of plants in the CAMPA plantation as observed during field inspection. In most part of urban and suburban areas natural regeneration was negligible while on block forest and rural areas there, were some glimpses of it due to presence of other species in and around the newly planted saplings.

4.5 Quality of work Observed Durlog Field Visit

Overall quality of work especially plantation and creation of assets in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of morsoon rain, rapid urban sprawl, etc.

4.7 Protection and Maintenance of Plantation and Project Assets

There was barbed wire and bush fencing at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ Iron/wood gabions were also adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be provision of better care of plantation through elaborate fencing and protection as observed. The process of awareness raising and motivation of local community should be a regular phenomenon in the project.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Meetings and interactive 'programmes were organized from time to time on the initiatives of DFO to update and motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

The project authority did not take any effort for SHG formation under CAMPA programme, it was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT

5.0 <u>Project Constraints and Limitations</u>; There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

5.1 Unprotect Grazing by Loose Domestic Animals

Open grazing by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area, it led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff During 2013-14 of Project Work

Project authority reported that there was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation. However, fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and recently this problem was over. But impacted the programme adversely.

5.3 Low Wage Rate of Forest Department as Compared to Private Sector

Wage rate of forest department (@Rs., 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.

5.4 Shortage of Lahour Force due to Bapid Urban Sprawl and High wage Rate

Due to high rate of urbanization and industrialization in most part of the project area, there was high demand of labour force and hence the forest department had to face shortage of labour. In industrial sector average wage rate per day was Rs. 400-500 while it was Rs. 213 in forest department.

5.5 Inadequate Infrastructure in the Division and Forest Ranges

At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority. It impacted performance and quality of work as well as outcome of project.

5,6 Other Blotic and Natural Eactors Impacting Survival of Plantation

• Biotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

5.1 Suggestions and Recommendations for Improvement: On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

6.1.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals

As discussed above time and again about the menace of grazing in most part of plantation area and hence it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.

6.1.2 Make Proper Arrangement of Protection and Maintenance of Plantation

The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.

6.1.3 Vacant Posts of Frontline Staff Should be Filled on Time

All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was felt during 2013-14 of project work.

5.1.4 Provision of Fine/Punishment be Made Against Wrong Doing with Forest Resources

There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.

6.1.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills

Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.

6.1.6 <u>Make Four Years of Protection and Maintenance Funding</u>

There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.

6.1.7 Make Monitoring and Evaluation Regular, Systematic and Effective

Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF and two DFOs. It head office is located at Karnal, CAMPA programme along with other forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

6.1.8 Intensive Awareness Campaign to Motivate Local Community

 There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

6.1.9 Organize Exposure Visit for Staff Member and Local Community

 Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality and outcome of the programme.

6.1.10 Introduce Practice and Concept of Earning Carbon Credits

- The concept and practice of carbon credits is part of the global efforts to tackle
 greenhouse warming and rising temperatures. It should be introduced forthwith in the
 project area at village level for environment-related mass participatory programmes.
- Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthfer environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.2 Interview with Project Authority/DFQ

- Summary of Interviews held with DFO. Ms Renjitha is given below with contact detail. It is as follows:
- a) Ms Renjitha (IFS), DFO, Faridabad Forest Division (T), Faridabad district, Haryana, Mobile No.:+91-8901558515, Landline No.: +91-1292286760.
- The evaluator conducted interaction (pre evaluation/field visit) and interviewed (post evaluation) with DFO, Faridabad (T), Ms Renjitha along with an RFO. A number of issues related to implementation, progress, management and outcome of CAMPA were discussed in great detail. She replied all the queries straight forward and satisfactorily.
- The DFO confidently expressed that overall outcome and progress of CAMPA programme carried out during 2013-14 under Faridabad Forest Division in Faridabad district of Haryana was very good.

- On selection and preference of plant species in the project, the DFO was of the opinion that important factors like topography, soil condition, local climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, etc. were taken into consideration. Most preferred plant species in the project were Papri, Shisham, Kikar, Bakain Arjun, Alstonia, Pilkhan, Balan Khira, etc.
- With reference to benefits accrued and impact of CAMPA programme, the project authority further said that it generated employment opportunity to members of households who worked and got opportunity to earn additional income. Plantation helped in improving ecology and environment of the area. Construction of forest guard hut/quarter at Pratapgarh forest colony under Ballabgarh forest range had significant impact on forest staff working in the field.
- For betterment in the project outcome, the DFO told that she maintained regular interaction with staff members, monitored their work records and past performance, fixed accountability on the basis of performance, etc. It helped in improving performance of staff and quality of work.
- The project authority also explained that important factors impacting growth and survival of plantation were grazing by domestic animal, Illicit felling of plant, shortage of labour forces, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, low wage rate under forest department, etc.
- Finally the DFO assured the members of evaluation team that plantation journals, which were missing, would be prepared of all the plantation sites carried out order CAMPA during 2012-13.

6.3 Evaluator's Assessment

After field inspection, meeting with DFO, other forest officials, local community and analysis and verification of official records / documents, it was concluded that above statements made by the DFO, Ms Renjitha was true to a great extent. The project authority did a commendable job in the programme at Farldabad forest division. Awareness raising campaigns should be conducted at regular interval by adopting modern tools of mass media for better impact. Monitoring and evaluation work of the programme should be streamlined and conducted effectively at regular interval.

Photographs: Plantation Area and Other Project Activities of Faridabed Division (2013-14)

Faridahad Ranger- (Sile-1; R.F. Allpur-19 RKM, Ste-2: Faridahad Bye Pass Road-20 RKM)

Ballahgarh Ranger- (Site-3: Dho) Bundh: 2 RKM, Site-4: Ballahgarh Pali Sohna road: 9 RKM, Site-5: Alampur Tikri Khera Road 0-2, 1.5 RKM, Site-6: Sitrid Jakopur Frojpur 0-5: 4 RKM, Site-7: Dho) Fatehpur Tega Road 0-4: 3 RKM, Site-8: Sikri Distributary RD 0-12: 3 RKM, Site-9: Dho) Crusher Zone Road 0-1: 0.5 RKM, Site-10: Sirohl Bijopur Road 0-3: 2 RKM, Site-11: Harchandpur Distributary 12-20: 3 RKM, Site-12: Rampur Distributary 0-12: 3 RKM, Site-13: Construction of Forest Guard Hut/ Quanter, Forest Colony Pratapgarh),

Plant Species: Alsonia, Bakain, Bulam Khira, Gutter, Papri, Pathan, Shisham, etc.



		Final a	A.P.O. State	CAMPA Scheme (2013-14) o	f Faridal	oad Fore	st Div	rision	(T) in Fa	ridabad Distric	t of Hary	/ana	<u>.</u>
SL No	Type of land	Name of Scheme	Name of Range	Name of Site	Khasra No.	Plentati on	Τa	rget leved	Spacing (m)	Name Of Species	No. of Plants		ordinates
	1				KM/RD	Month	Ha	RKM				Longitude	Latitude
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Forestland	NPV/Ridge	Faridabad	R.F. Alipur	NA	July	NA	19	4x4	Papri, Alstonia, Shisham	9500	28°24'41.2"	077*26'57.9"
Ž.	Forestland	CA/T.P.	Fortdabad	Faridabad Bye Pass Road	NA	July	N/A	20	3x3	Papri, Alstonia, Gullar, Pilkhan	5000	28*23'22.7*	077°20'12.5"
3.	Forestland	NPV/Ridge	Ballabgarh	Dhoj Gundh O to Tall	NA	July	NA	2	4×4	Papri	1000	28 10 58.8	077°12'22.9°
۹.	Forestland	NPV/Ridge	Ballabgarh	Ballabgarti Pali Sohna road 9- 20 L&R	NA.	July	N.A	9	4×4	Papri	4500	28*22'15.8"	077°13'42.5
5.	Forestland	CA/T.P.	Ballabgarh	Alampur Tikn Khera Road 0-2	NA	July	NA	1.5	3x3	Papri	375	28*19'47.1"	077*11'35.7*
6.	Forestland	CA/T.P.	Ballabgarh	Sirote Jakopur Firojpur 0-5	NA	July	NA	4	3x3	Papri, Alstonia, Bakain	1000	28°19′1.8″	077*11'06.8*
7.	Forestland	CA/T.P	Ballabgarh	Dhoj Fatehpur Tega Road C-4	NA.	. July	NA	3	3x3	Papri	750	28*20720.2"	077*12'300"
B.	Forestland	CA/T.P.	Ballabgarh	Sikri Distributary RD 0-12	NΛ	July	NΑ	3	3x3	Papri	750	28*20'00.1"	077*17'48.1"
9.	Forestland	CA/T.P.	Ballabgerh	Dhoj Crusher Zone Road 0-1	NA.	July	NA.	0.5	3к3	Papri, Pipal	125	NA	NA.
10.	Forestland	CA/T.P.	Ballabgarh	Sirohi Bijopur Road 0-3	NA	July	NΑ	2	ЭкЭ	Alstonia	500	28"18"53.3"	077*11*27*
11.	Forestland	CA/T.P.	Ballabgerh	Herchandpor Distributary 12-20	NA	July	NA	3	3×3	Papri	750	NA	N/A
12	Forestland	CA/T.P.	Ballabgarh	Rampura Distributary 0-12	NA	July	NΑ	3	31/3	Papel	750	NA	· NA
	Total				_	_	-	70	,		25000		. –

	Final A.P.O. State CAMPA Scheme (2013-14) of Faridabad Forest Division (T) in Faridabad District of Haryana								
25	St. Item of Work Sanctioned Amount Actual Expenditure								
No.		(Rs., in. lakhi)	(Rs. in laids) Amount Quantity Location/Remark						
			(Rs. in laidh)		.,				
1.	Construction of Forest Guard Hut/Quarter	6.0	5.0	1	At Pratapgarh forest colony	Completed in 2014			
	at Pratapgarh in Ballabgarh range in Ballabgarh range								
	Yotall	6.0	5.0	1	-	- "			

COMPENSATIONY AFFORESTATION: FUND MANAGEMENT AND

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi



Monitoring and Evaluation of State Campa, Haryana Implemented By Gurgaon Eorest Division (T) and DWLO in Gurgaon District Of Haryana

Duration of Evaluation: 2013/14

Pinal Draft Report

Submitted to ...

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANAVAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA

INVITATION OF THE

February, 2015

AIRDS

Conducted by

LOGUS RESEARCH & CONSULTANTS PARTY TD.

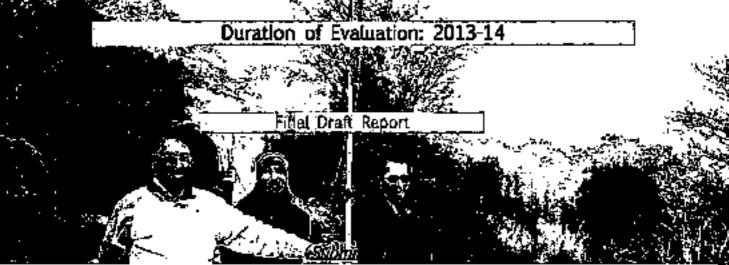
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Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

Covernment of Endia India New Delhi

MONITORING AND EVALUATION OF STATE CAMPA, HARYANA BEING IMPLEMENTED BY GURGAON FOREST DIVISION (T) AND WILDLIFE FOREST DIVISION IN GURGAON DISTRICT OF HARYANA



OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANAVAN BHAWAN, C-18, SECTOR-5, PANCHKULA, HARYANA



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The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Gurgaon Forest Division (T) and DWLO, Gurgaon in Gurgaon District of Haryana (2013-14)" was successfully completed. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal, and other officials placed at PCCF office especially DCF, Mr. Garg, Mr. Hembram and Mr. DP Tyagi for reposing faith and awarding the honorable task of evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency. My brief interaction with PCCF uplifted my spirit as he took final decision deftly in little after taking stock of the situation.

My Interaction with DFO, Ms Vasvi Tyagi (Territorial Division) and DFO, Mr. Kulvindar Singh (DWLO Division), RFOs along with other officials of both forest divisions helped me in understanding various aspects of CAMPA implementation and its progress during 2013-14.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly indebted to Mr. BXP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

New Delhi, January, 2015

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Preface

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates......a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character. State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds, it will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation. Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana at Gurgaon by PCCF office on professional terms and conditions. Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

During 2013-14 of CAMPA programme, a total 13 RKM forestland was treated along with creation of boundary wall, repair and reinstallation of diesel pump set and tube well at Sultanpur National Park, and purchase of rescue vehicle at DWLO division office, Gurgaon with a total expenditure incurred on different activities of CAMPA was Rs. 45.04 lakh against the target of Rs. 53.25 lakh. A total of 3250 plant species of Allanthus, Alstonia, Amaltas, Arjun, Bakain, Ber, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pikhan, Pipal, Shisham, Siras, etc. were planted.

Average survival r of plantation estimated was 66%. It was 68% at Ghata Bundh while it was 63% at Gurgaon Pataudi Road Km. 3-13 L&R. Average height of plantation was 5 feet. Average grading awarded to the programme was 6.4 (on a scale of 1 to 10), which was very good.

Members of evaluation team interacted with JFMC local community and forest officials in the process of field inspection of project area. At most places local people were happy with the efforts made by forest department. A Plantation journal was missing but other project related records were recorded and kept well. Selection of species was made in accordance with local factors and needs of the community. Flow of fund was smooth as reported by the project authority. There was lack of awareness and low sense of responsibility on public and environmental issues among the local people. Overall outcome of the programme was satisfactory.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

January, 2015



Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

ACRONYMS

ACF Assistant Conservator of Forests

Affo Afforestation

APCCF Additional Principal Chief Conservation of Forests

APOs. Annual Plan of Operations AR Artificial Regeneration CA Compansatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests CEC Central Empowered Committee

CF Conservator of Forests CN Compartment Number

CPT Continuous Protection Tranch DCF Deputy Conservator of Forests

DFÔ Olvisional Forest Officer DG-Forests Director General Forest DWLO Divisional Wild Life Officer **ENF** Establishment of Natural Forest

FPA Entry Point Activity

FDA Forest Development Agency FGD Focus Group Discussion FTC Forest and Tree Cover GOI Government of India GPS Global Positioning System

Gurgaon Division (T) Gurgaon Forest Division Territorial

Hectare

JFMC Joint Forest Management Committee

M & E Monitoring & Evaluation MFP Minor Forest Produce

MOFF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce DBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

PF Protected Forest

PRA Participatory Rural Appraisal ROF Rehabilitation of Degraded Forest RED Research and Evaluation Division

RF Reserved Forest rfô Range Forest Officer RKM Row Kilometer RO Range Officer SC. Scheduled Castes

SF Social Forestry SMC Soil & Moisture Conservation

\$T Scheduled Tribes TOR Terms of Reference UF

VFC Village Forest Committee

Un-class Forest

LOCAL NAME AND BOTANICAL NAME OF PLANT SPECIES

SL No.	Common Name	Botanical Name
1.	Ailanthus/Mahanimb/Maharukh	Ailanthus Excelsa
2.	Amaltas	Cassia fistula
3.	Arjun	Terminalia arjuna
4.	Bakain	Melia azedarach
5.	Ber	Ziziphus mauritiana
6 .	Chakrasia/Indian Redwood	Chukrasia tabularis
7.	Сћатра	Magnolla champaca
8.	Gulmohar	Delonix regia -
9.	Indian Mallow/ Devil Tree	Alstonia
10.	Jamun	Syzygium cumini
11.	Kachnar	Bauhinia variegata
12.	Khair	Acacla catechu
13.	Kikar	Acacia Arabica
14.	Lasoda	Cordia Dichotoma
15.	Neem	Azadirecta indica
16.	Рарлі	Holoptelea integrifolia
17.	Pilkhan	Ficus virens
19.	Pipal	Ficus religiosa
20.	Shisham	Dalbergia sissoo
21.	Siras	Albizzia lebbeck

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana Gurgaon Forest Division and DWLO Division, Gurgaon in Gurgaon District of Haryana

	Average Grading on a Scale of 1 to 10	
Item/Aspect	Project Components	Value
Quantitative Aspects	Physical	9
	Financial	9
Qualitative Aspects	Survivat	6
	Health of Plantation	6
	Maintenance	6
	Sustainability	5
JFM/Social Aspects	Degree of Peoples' Participation	5
	Satisfaction over Perceived Benefits by the Local Population	5
Overall Grading (Very Goo	od)	6.4

Executive Summary

1.0 Introduction

The field visit for monitoring and evaluation of State CAMPA, Haryana at Gurgaon Forest Division (T) and DWLO division Gurgaon was conducted in the month of January 7-10, 2015 by Locus Research & Consultants Pvt. Ltd., a Delbi based professional agency. A total 13 RKM forestland with CA plantation schemes at 2 places treated during 2013-14 along with creation of three assets three places. The entire (100%) project sites/areas and assets were covered in the process of field visit and analysis. Summary of findings of the study is given below.

2.0 CAMPA: An Overview

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

3.0 Objectives of the NAP

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.

4.0 Geographic Location /Area of Monitoring & Evaluation

• It covers Gurgaon Forest Division (Territorial) and DWLO Division, Gurgaon in Gurgaon district of Haryana.

5.0 Reference Period

The reference period of monitoring & evaluation CAMPA is one year, i.e. 2013-14.

6.0 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any in from the stated guidelines, etc.

7.0 Objectives of the Study

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 Methodology and Sample selection

 Simple random, systematic, stratified and purposive sampling techniques were adopted as per need and interviewing forest officials and community leader, etc. There was cent percent (100%) coverage area and project activities carried out during 2013-14.

9.0 Profile of the Study Area

- The state comprises 47 subdivisions, 21 districts, 45 sub-tensils, 57 tensils/towns and 115 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- ◆ Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state. As per India State of Forest Report-2011, Gurgaon district has 8.35% area under forest cover.

10.0 Main Findings of the Study

10.1 Quantitative Findings

- During 2013-14, a total of 13 RKM land forestland was treated under CAMPA programme by adopting CA scheme at Gurgaon range in Gurgaon forest division (T). Besides plantation three assets were created namely boundary wall, repair and reinstallation of diesel pump set and tube well at Sultanpur National Park, Bird Sanctuary and purchase of rescue vehicle at DWLO division office, Gurgaon.
- Total expenditure incurred on different activities of CAMPA was Rs. 45.04 lakh against the target of Rs.
 53.25 lakh during 2013-14.
- Ghata Bundh (8 RKM) and Gurgaon Pataudi Road KM 3-13 R&L (5 RKM) belonged to Gurgaon range. A total of 3250 plant species of Ailanthus, Aistonia, Amaitas, Arjun, Bakain, Bar, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pilkhan, Pipal, Shisham, Siras, etc. were planted at both the sites.
- Average survival rate of plantation estimated was 66%. It was 68% at Ghata Bundh while it was 63% at Gurgaon Pataudi Road Km. 3-13 L&R. Average height of plantation was 5 feet. Growth and health of plantation was good. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random locations to estimate survival percentage. For row /linear plantation, row

counting of plants was followed. Feedbacks through interviews with various stakeholders of project, observations and experiences of members of evaluation team were also considered to validate and estimate survival percentage.

- Work register. Cash book. Maps, etc. were importance registers maintained by the project authority.
 Plantation journal was missing but project authority assured us that it would be introduced soon.
- Monitoring and Evaluation (M & D wing conducts monitoring of CAMPA for once or twice a year on average basis. Last evaluation of CAMPA was carried out in October 2014 for the entire four years of project activity (2010-11 to 2013-14). The headquarters of M & E wing is located at Karnal in Haryana.
- Flow of funds was smooth at all levels as reported by the project authority.

10.2 Qualitative Findings

- Type of soil, climate and natural factors, survival factor and suitability in the in the area, demand/choice put by local community, etc. were main factors in the selection of species.
- CAMPA plantation accrued benefits in conserving soil moisture. The project authority reported that there
 was no provision of additional funds for soil moisture conservation work.
- Natural regeneration of plantation in the CAMPA was negligible. In block forest region there were some a glimpses of it due to presence of other species in and around the newly planted saplings.
- Overall quality of work was found satisfactory at majority locations as observed during field visit.
- Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.
- For protection of plantation Barbed wire fencing was very common at all sites along with a few brick/ iron/wood gabions in urban and sub-urban areas. Foresters and forest guards were responsible for making regular rounds of plantation area in this regard.
- The project authority was of the view that meetings and interactive programmes were organized at certain intervals on the initiatives of DFO to acquaint, update and motivate forest staffs with necessary information on forestry programmes and CAMPA related issues.
- There was average to low participation of local community in the implementation and protection of the programme.
- CAMPA programme accrued both direct and indirect benefits. It helped in improving quality of ecology and environment benefitting all kinds of flora and fauna. Wage employment during project activity and plantation season also accrued benefits to local people in earning additional income.

11.0 Constraints and Limitations of the Project

- Grazing by domestic animals had adverse impacted survival and growth of plantation. It caused far reaching damage to plantations as animals' feet loosen the soil, and has a cascading detrimental effect on all saplings planted in the area.
- There was shortage of foresters and forest guards in the division during 2013-14. The programme had adverse impact on quality and outcome due to this during 2013-14.
- Average wage rate of forest department was Rs. 213 per day, which was much low as compared to local industrial establishments and urban areas (Rs. 400-500 per day) causing hardship and limitation in finding labour force during peak plantation season and project work.
- ◆ Due to high rate of urbanization and industrialization, there was high demand of labour force and hence the forest department had to face shortage of labour. In industrial sector average wage rate per day was Rs. 400-500 while it was Rs. 213 in forest department and hence the forest.

- Range level offices were facing shortage of necessary vehicles for day to day activities as reported by the project authority. It impacts the performance of staff and quality and outcome of project work.
- Main factors impacting growth and survival of plantation were damage caused by wild animals like, rabbits, blue bulls and porcuptnes, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic monsoon rain, rapid urbanization, etc.

12.0 Suggestions and Recommendations

- A viable strategy should be adopted to minimize the manace of grazing by domestic animals in most part of the project area. Wild animals like blue bulls and rabbits also caused damage to plantation. Local community should be motivated to adopt stall feeding to their animals.
- A multi-pronged strategy should be adopted for protection and maintenance of plantation, it was observed that barbed wire fencing was very common at most plantation sites, it is suggested that in urban and suburban areas the project authority should adopt gablons of iron, brick or wood for better survival and higher outcome.
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff
 to ease the pressure on existing staff.
- A provision of fine /punishment or both should be levied against all persons involved in unprotected grazing and deliberate damage to plantation.
- Workshops and Capacity building programmes should be organized by involving field level forest staffs along with some willing local community to impart skill enhancement and better knowledge.
- There should be regular funding provision for four consecutive years for protection and maintenance of plantation for better outcome.
- Monitoring and evaluation system is critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). The project authority should pay a better attention in this regard to increase its effectiveness.
- Mass media communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukked nataks, slogan shouting, rallies, advertisement in local newspapers, etc. should be adopted for awareness for better and long lasting impact among local community.
- Exposure visit and tour programme should be organized for forest staffs to advance nursery and plantation areas within the state and outside for better understanding and learning new ideas and knowledge. These are important methods of development process.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures in new ways, and it should forthwith be introduced in our country at the village level of environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

CHAPTER-1

PROJECT CONCEPT, STRATEGY, OBJECTIVE AND METHODOLOGY

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Count with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators.
- Due to certain discrepancies in the implementation of compensatory afforestation, some
 NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- ◆ The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of Interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- ◆ That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chalimanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - ili. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief. Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.

- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:
 - Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - ld. Compensatory afforestation;
 - ly. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Details of Establishment State CAMPA

- The details of establishment of State CAMPA are summarized below:
- a) The State Government may establish the Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA, it is as follows:
 - Amount transferred to it by the ad-hoc CAMPA.
 - Receipt of all monles from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The State Government may also credit to the State CAMPA.
 - Grants or aid received if any;
 - Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

13 Establishment of State CAMPA, Haryana

- On March 3, 2010, Haryana Government constituted the State Compensatory Afforestation Fund Management and Planning Authority (STATE CAMPA), Haryana for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.
- State CAMPA, Haryana will have three bodies, namely a Governing Body, a Steering Committee and an Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-II), Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the State Government for a period of two years will be its Members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works, it will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- State Compensatory Afforestation Fund Management and Planning Authority*(CAMPA) is intended as an instrument to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an Integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife, its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of CAMPA

- Conservation, protection, regeneration and management of existing natural forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- Compensatory afforestation;
- Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
- Science, Research, Training and Capacity Building.
- Environment Protection and Sustainable Forest Management.

1.5 Geographic Location / Area of Monitoring & Evaluation

The evaluation study covers Gurgaon Forest Division (Territorial) and DWLO Division, Gurgaon in Gurgaon district of Haryana. The Jurisdiction of Gurgaon Forest Division (Territorial) is spread over whole of Gurgaon district while the DWLO Division is spread over six districts namely Gurgaon, Mewat, Faridabad, Palwal, Rewart and Mahendragarh. However, in the present study only Gurgaon district has been cover to analyze the CAMPA project activities.

- 1.6 Reference Period of Monitoring & Evaluation
 - The reference period of monitoring & evaluation CAMPA is one year, i.e. 2013-14.
- 1.7 Components of Project
 - People's Participation
 - Afforestation work under through Compensatory Afforestation (CA) and also funds collected through Net Present value (NPV)
 - Monitoring and Evaluation of the programme.
 - Conservation and protection of forests, infrastructure development, wildlife conservation and protection and related activities.
- 1.8 Details of Project Implementing Agency and Proposed Activities
 - A brief outline of the project agency and programme implementation is given below in table-1.2

Table 12; Project Impl	ementing	g Agency and Proposed Activities of the Programme
Project Implementing Agency		
◆ District	;	Gurgaon
→ Forest Division	;	Gurgaon (T) and DWLO, Gurgaon
→ Forest Circle	:	South Circle, Gurgaon, DWLO, Gurgaon
♦ State	:	Haryana
Project Location		
♦ Watersheds/Sub-watersheds	:	Ghata Bundh
→ Development Blocks (9)	:	Gurgaon, Farukhnagar, Manesar, Sohna, Damdama, Badrhalpur,
		Hailey Mandi, Inchapuri and Bhorkalan
◆ Forest Ranges(4)	:	Gurgaon, Sohna, and Hailay Mandi of Gurgaon Division and
		Sultangur National Park Bird sanctuary of DWLO, Gurgaon
♦ Villages/VFCs	<u>:</u>	Five (5)
Other Development Activities in the		
areas some other plantation s	cheme l	s not any other afforeataion scheme during 2013-14. In urbao ike urban plantation was implemented. However, developmental mented in most part of the CAMPA programme
Preparation of Micro-plan and Plant	<u>ation Jo</u>	umal
		as reported and hence not prepared. But plantation journal was and used as plantation journal.
Project Duration	:	2013-14
Design days and accepts constant		Tarret and achievements: 13 PKM Plentation and Other assets

: Target and achievements: 13 RKM Plantation and Other assets Project Area and assets created

created were Roundary Wall, Repair and reinstallation of Tube well

and <u>Purchase of Resone vehicle.</u>

Target: Rs. 53.25 takh, Achlevement/spent: Rs. 45.04 takh Project Cost

Proposed Strategies and Sallent Features of the Project

- ◆ Plantation Schemes: Compensatory Afforestation (CA) and Net Present value (NPV)
- Assets/Infrastructure created under CAMPA: there was no provision for creation assets in the name of EPA in CAMPA as reported. However, apart from Plantation CAMPA programme has wide scope for the creation of a number of assats.
- 19 Need of the Study
 - Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any in from the stated guidelines, etc.

1.10 Scope of the Study

 Scope of study is confined to Gurgaon Forest Division (T) and DWLO division, Gurgaon in Gurgaon district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management,

1.12 Research Methodology and Sampling Procedure

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- → A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.

1.13 Sample Selection, Sixe and Distribution

→ There was cent percent (100%) coverage area and project activities carried out during 2013-14, it comprised two plantation sites namely Ghata Bundh (8 RKM) and Gurgaon Pataudi Road KM 3-13 R&L (5 RKM) of Gurgaon range and creation of three assets i.e. boundary wall, repair and installation of tube well and purchase of rescue vehicle.

1.14 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the Project Concept Strategy Objectives and Methodology.
 - Chapter-2 gives the Profile of the Project Area and its Location
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with Limitations_and_Constraints_of_the_Project.
 - Chapter-6 provides Suggestions and Recommendations for Improvement.

1.15 Limitations of the Evaluation Study

- It hard to find respondents at both rural and urban areas of project implementation. It impacted collection necessary information.
- Lack of necessary awareness among community about details of CAMPA also impacted collection of necessary information. However, adequate efforts were made by members of evaluation team to minimize these limitations.

CHAPTER-2

PROFILE OF PROJECT AREA

2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- Ambala Division has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar.
- Gurgaon Division has six (6) districts namely Palwal, Farldabad, Mahendragarh, Gurgaon, Rewari, and Mewat districts in its jurisdiction.
- HARVANA

 DISTRICT MAP

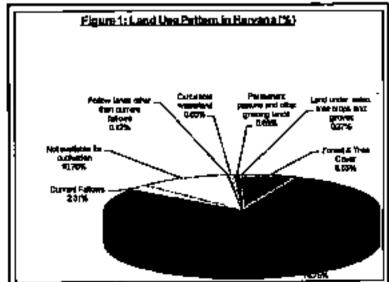
 PROJECT

 PROJECT
- While Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Sirsa districts.
- And Rohtak Division has also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonipat districts in its jurisdiction.

2.1.1 Land Use Pattern of Haryana

Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland white tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.

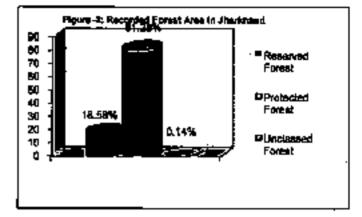
Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation (13.11%), Current fallows (2.40%). Permanent pasture and other grazing lands (0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See figure -1 as given below. Source: Land



Use (India State of Forest Report 2011, FSI Dehra Dun).

2.1.2 Recorded Forest Area in Haryana

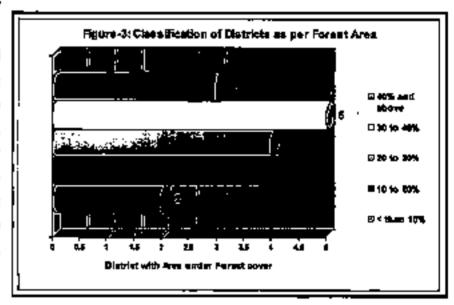
- The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15,97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's



geographical area. The state has taken an initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. See figure *2.

2.1.3 District wise Distribution of Forest Area in Haryana

 Distribution. οf forest land among districts (21) of the state is highly uneven. Two districts. namely Punchkula (8.35%)Yamunanagar and (10.97%) have more than 10% area under forest cover while two districts namely Gurgaon (8.35%) and Mewat (8.35%) fall in the category of 5% to 10% forest cover.



• It followed seven districts namely Faridabad, Palwal, Bhiwani, Ambala, Rewarl, Mahendragarh and Kaithal fall in the category of 2% to 5% forest cover. On the other hand 10 districts namely Fatehabad, Hisar, Jhajjar, Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat have less than 2% geographical area under forest cover.

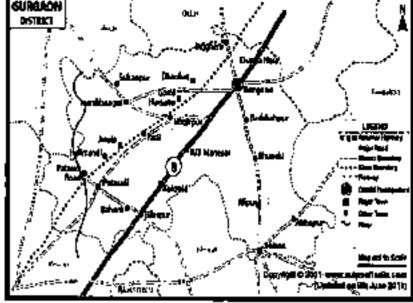
2.2 Profile of Gurgaon District.

• Gurgaon is a leading financial and industrial city of India, situated in the National Capital Region near the Indian capital New Delhi in the state of Haryana. It is located 32 km southwest of New Delhi. Gurgaon district has a population of 876,824. Witnessing rapid urbanization, Gurgaon has become the city with the third highest per capita income in India, even though the city grappies with the problem of lack of proper infrastructure and utilities, frequent power outages and rising crime. Historically known as Guru Gram, the city's economic growth story started when the leading Indian automobile manufacturer Maruti

Suzuki India Limited established a manufacturing plant in Gurgaon in the 1970s. Today, Gurgaon is home to about suranon

250 Fortune 500 companies.

The origin of the city's name can. be traced back to ancient Hindu scriptures. It is believed that this land was owned by the legendary rulers Pandavas and Kauravas who presented ìŧ to Guru Dronacharaya, their royal guru for warfare, as an appreciation of his training. The land came to be known as Guru Gram which literally translated means "Village



of the Guru', which in due course of time got distorted to the name Gurgaon. The village still exists within the modern day city.

- Gurgaon is located in Gurgaon district in the Indian state of Haryana and is situated in the south eastern part of the state, and northern part of the country. The city is located on the border with Delhi with New Delhi to its north east. The city has a total area of 282.7 square miles (738.8 km²). The average land elevation is 711.9 ft (217 m) above sea level.
- ◆ Under the Köppen climate classification, Gurgaon experiences monsoon-influenced humid subtropical climate (Cwa). The city experiences four distinct seasons spring, summer, autumn and winter, along with the monsoon season setting in towards the latter half of the summer. Summers, from early April to mid October, are typically very hot and humid, with an average daily June high temperature of 104 °F (40 °C). The season experiences heat indices easily breaking 110 °F (43 °C). Winters are very cold and foggy with few sunny days, and with a December daytime average of 37.4 °F (3 °C). The Western Disturbance brings some rain in winters that further add to the chill. Spring and autumn are mild and pleasant seasons with low humidity. The monsoon season usually starts in the first week of July and continues till August. Thunderstorms are not uncommon during the Monsoon. The average annual rainfall is approximately 28.1 inches (714 mm). Itol

2.3 Forest Cover in Gurgaon District

As per India State of Forest Report-2011, Gurgaon district has 8.35% area under forest cover against 3,64% (6.80% both forest & tree cover) of state average. Main plant species adopted under CAMPA programme in the district are Allanthus, Aistonia, Amaltas, Arjun, Bakain, Ber, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pilkhan, Pipal, Shisham, Siras, etc.

CHAPTER-3

QUANTITATIVE EVALUATION AND FINDINGS

3.1 Classification of Area Covered/Treated

• During 2013-14, a total of 13 RKM land belonging to Protected Forest was treated under CAMPA programme by adopting Compensatory Afforestation (CA) scheme at Gurgaon range in Gurgaon forest division (T). Apart from plantation other activities followed and assets created were construction of boundary wall at Kadipur Government high school under Gurgaon range, repair and reinstallation of diesel pump set and tube well at Suitanpur Bird Sanctuary and purchase of rescue vehicle at DWLO division office, Gurgaon. Refer table-3.1 as given below.

	Table 3.1 Area Covered/Treated /Plantation and Other Activities of CAMPA						
SL Na.	Forest Division	Land Category	Name of Scheme	Amea in RKM	Year of Plantation		
1 ,	Curgacon (7)	Protected Forest	ÇA .	.			
2	Gurgaço (T)	Protected Forest	ÇA	5			
	'	Total	•	13]		
		Other Activities	s/ Assets Created		2013-14		
3.	Gurgaon (T)	Boundary Wall of Kadipur	Govt Land				
4.	4. DWLO, Gurgaron Repair and reinstallation of Tube well						
5.	DWLO, Gurgaron	Purchase of Rescue vehicle	<u></u>				

3.2 Physical and Financial Targets and Achievements

Total expenditure incurred on different activities of CAMPA in Gurgaon district under two forest divisions was Rs. 45.04 takh against the target of Rs. 53.25 takh during 2013-14. A sum of Rs. 5.0 takh was spent on plantation of protected forestland (13 RKM) while Rs. 31.02 takh was spent on construction of boundary wall at Kadipur Government high school under Gurgaon forest division. On the other hand a sum of Rs. 3.0 takh was spent on repair and reinstallation of diesel pump set and tube well at Sultanpur Bird Sanctuary. Finally Rs. 6.01 takh incurred on purchase of a rescue vehicle at DWLO division, Gurgaon. Refer table 3.2 for detail information on physical and financial target and achievements of CAMPA as given below:

		Table 3,2: Physi	cal and Financial Targe	et and Achieve	sments (2013-201-	0		
SL	F Di-bi-	D	Site /WFC/Village/	Physical (Are	ra in RKML & Rs.	Financial (Rs.)		
No.	Forest Division	Range	Asset Name	Tauget	Achievement	Tanget	Achievement	
1	Gurgason (T)	Gurgaton	Ghats Bundh O-Tail	8	. 8	307688	307688	
2	Gurgaron (T)	Gurgaon	Gurgaon Pataudi Road Km, 3-13 L&R					
		Sub-Total		13	13	500000	500000	
I.	Gurgaon (T)	Gurgaion	Boundary Wait of Kar	dipur Govt. La	nd.	3525000	3102219	
2	DWLO, Gurgeon	Sultanpur Bird Sanctuary	Repair and reinstallat	Repair and reinstallation of Tube well				
3.	DWLO, Gurgaon	Gurgaon	Purchase of Rescue	<u>l</u>	601451			
		Grand Total		. 13	13	5325000	4503670	

3.3 Inventory/ List of Plantation

During 2013-14 a total 13 RKM area was treated at two sites namely Ghata Bundh (8 RKM) and Gurgaon Pataudi Road KM 3-13 R&L (5 RKM) at Gurgaon range. Mostly tall plant species were adopted. A total of 3250 plant species of Ailanthus, Aistonia, Amaitas, Arjun, Bakain, Ber, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pilkhan, Pipal, Shisham, Siras, etc. were planted at both the sites. Range-wise, scheme wise and area wise list of plantation is given below in table 3.3.

			Table 3.3 lov	entory/ Lis	st of Plant	ation of the Project	
SL	Range	Village/VFC/Site	Scheme of Plantation	Area in RKM	No. of Plaints	Name of Plants Species	Year of Plantation
1	Gurgaon	Ghata Bundh	CA	8	2000	B. Papri (880), Amaitas (200), Kachnar (300), Pilkhan (200), Jamun (100), Pipal (80), Ber (60), Neem (60), Siras (50), P. Papri (50), Gulmohar (20), etc.	
2	Gurgaon	Gurgaon Pataudi Road Km. 3-13 L&R (Kadlpur, Gadoli, Harsaru, Wazirpur)	a	5	1250	B Papri (460), P. Papri (450), Bekain (165), Sisham (95), Pilkhan (40), Neem (25), Jamun (15), etc.	2013-14
	Total	•		13	3250		

3.4 Analysis of Plantation and Assessment of Survival Percentage

 Both the plantation sites namely Ghata Bundh and Gurgaon Pataudi Road KM 3-13 were thoroughly covered during field visit to assess the overall quality and health of plantation









and to estimate survival percentage. Average survival rate of plantation estimated was 66%. It was 68% at Ghata Bundh while it was 63% at Gurgaon Palaudi Road Km. 3-13 L&R. Average height of plantation was 5 feet. Growth and health of plantation was good. Refer table 3.4 for detail information on survival assessment. Also refer photographs as given above.

$\overline{}$	/	Table 3.4 Pta	ntation Sites and Su	rvival Assess	ament/Eşţim	ation		
sr,	Division/ Ranga	VFC/Sita	Scheme	Area (ha)	No. of Plants	Plants Surwed	Survival (%)	Year
1	Gungaon	Gheta, Bundh	CA	8	2000	1360	مرا 68	
2	Gurgaon	Gurgaon Pataudi Road Km. 3-13 L&R (Kadipur, Gadoli, Harsaru, Wazirpur)	CA .	5	1250	788	63	2013-14
	Total			13	3250	2148	66	

3.5 Other Activities / Assets Created in the Project

Besides plantation work other important activities/assets created by state CAMPA at

Gurgaon forest division and DWLO, Gurgaon

	Details of Assets Created through CAMPA (2013-2014)								
_	Forest	_	Details of						
S.	Division	Ritige	Asset Created	Tagel	Actions				
1.	Gungson (T)	Congress	Boundary Wall of Kedipur Govt Land	38,7500	3102219				
2	DNALO. Gungasan	Subprepor Blod Sugaruary	Repeir and remetalistic n of Yuhar well	1300000	300000				
1	DWLO, Gungson	Gurguon	Purchase of Rescue which		601451				
	·	Total		4525000	4005670				

were boundary wall, repair and installation of tube well and purchase of rescue vehicle as

discussed above. These assets were thoroughly reviewed during field visit. Physical verification of assets revealed that overall quality of these assets was satisfactory. Details of them are given above in tabular form. Also refer photographs.

3.6 List of important Registers/Records Maintained and Available in the Project

Importance register/ Records maintained by the project authority were work register. Cash book, Maps, etc. Plantation journal/register was missing. However, the project authority assured us that it would be taken care very soon for all the plantation sites in the project.

3.7 Process of Monitoring and Evaluation of Project

Monitoring and Evaluation (M & E) of CAMPA is carried out by M & E wing average once or twice a year. Last evaluation of CAMPA was carried out in October 2014 for the entire four years of project activity (2010-11 to 2013-14). The headquarters of M & E wing is located at Kamal in Haryana. It consists of one conservator of forest (CF) and two Deputy Conservator of Forest (DCF). M & E wing conducts monitoring & evaluation of all forestry programmes being implemented in the district comprising two forest divisions.

3.8 Involvement of Independent Agency in Evaluation Process of CAMPA

• It was reported that an independent agency named Agricultural Finance Corporation Ltd. of New Delhi carried out monitoring & evaluation of CAMPA programme for the duration of 2011-12 and final reports of all the districts were submitted in 2013. An overall finding of the study was good.

3.9 Flow of Funds and Bank Accounts Details

◆ Bank account of CAMPA Programme was in the Name of Divisional Forest Officer at Corporation Bank with saving A/C No.: 044900101023499 at Gurgaon Branch. Apart from this there were three other bank accounts (one each) at range level (Gurgaon, Sohna, and Hailey Mandi-Pataudi). It is operated by chairman from a Village Forest Committee (VFC) who might be a Sarpanch or Deputy Sarpanch and member secretary, a Range Forest Officer (RFO). These bank accounts existed with a nearest available branch of any bank from a range forest office. Flow of funds was smooth at all levels as reported by the project authority.

CHAPTER-4

QUALITATIVE ANALYSIS AND FINDINGS

4.1 Preference and Basis of Species Selection

• Main factors considered in the selection/choice of plant species were type of soil, climate and natural factors prevailing in the area, suitability in the in the area economic value benefitting local people, demand/choice put by local community, etc. However, the project authority took the final call in this regard after taking into account of above factors.

4.2 Status of Soil and Moisture Conservation

It was observed that plantation conducted under CAMPA accrued benefits in conserving soil moisture. It was average in most part of project area. However, the project authority reported that there was no provision of additional funds for soil moisture conservation work.

4.3 Assessment of Survival Percentage of Plantation and Methodology Adopted

- ◆ Average estimated survival rate of plantation was 66%. It was 68% at <u>Ghata Bundh</u> plantation site while at <u>Gurgaon Patandl Road Km. 3-13 L&R</u>, the survival was 63%. Average height of plantation was 5 feet. Growth and health of these plantations was satisfactory.
- A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random locations to estimate survival percentage. For row /linear plantation, row counting of plants was followed. Feedbacks through interviews with various stakeholders of project, observations and experiences of members of evaluation team were also considered to validate and estimate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area.

There was very little natural regeneration of plants in the CAMPA plantation as observed during field inspection, in most part of urban and suburban areas natural regeneration was negligible while on block forest and rural areas there were some glimpses of it due to presence of other species in and around the newly planted saptings.

45 Quality of work as Observed during Field Visit

 Overall quality of work of plantation and assets created by CAMPA was found satisfactory at majority locations as observed during field visit. A thorough inspection of all the project sites was conducted by members of evaluation team in this regard.

4.6 Factors Affecting Growth and Survival Percentage of Plantation

Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.

- 4.7 Protection and Maintenance of Plantation and Project Assets
 - Barbed wire fencing was adopted at all the plantation sites for protection of plantation along with a few brick/ iron/wood gabions in urban and sub-urban areas. Forest staff especially foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance, it was observed that in urban part there should additional care and provision of fencing and protection. There is need to motivate community people in this regard.
- 48 Motivation and Technical Competence of Personnel Involved in the Project
 - Most of the forest staffs working in the field such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle the necessary requirements white dealing with various aspects of forestry programmes. But even dally wages or temporary staffs, watchers, etc. should also be imparted necessary skill to deal with new challenges of the programme. The project authority was of the view that meetings and interactive programmes are organized at certain intervals on the initiatives of DFO to acquaint, update and motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project

There was average to low participation of local community in the implementation and protection of the programme. Among target project sites and VFC forest officials maintained interaction from time to time. But t was not adequate, interaction, meetings and awareness raising programmes with local community should be a regular phenomenon of such programmes for sustainable development and better outcome of the programme. Modern tools of mass media should be adopted in the awareness and motivation of community to catch their attention and its long lasting impact.

4.10 Benefits and impact of the Programme

CAMPA programme accrued both direct and Indirect benefits. Plantation helped in bringing additional geographical area under plantation and forest cover resulting into extra availability of fuel-wood and fodder along with other forest produces, it helped in improving quality of ecology and environment as well as micro-climate of the area, benefitting all kinds of flora and fauna. Part-time wage employment during project activity and plantation season also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project Area.

As reported by the project authority there was no formation of SHG under CAMPA programme. The project did not have such provision or allocation of funds for such activities. However, the project authority was in agreement with our suggestions that these institutions help in extension of programme and better motivation of local community so that they willingly participate and extend cooperation to project authority during implementation as well as protection and maintenance of the project assets.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT.

The project authority was faced with a number of natural and anthropogenic constraints and limitations in programme implementation, protection and management, which impacted the performance. Some of the most notable constraints and limitations of the project are discussed below.

- 5.1 Rampant Grazing by Loose Domestic Cattle in most part of Project Area.
- Grazing impacted survival and growth of plantation adversely. It was a common problem in most part of the project area. Unprotected grazing caused far reaching damage to plantations: the animals' feet loosen the soil, and has a cascading detrimental effect on all sapilings planted in the area. It led to stunted growth of plants, which survived even after facing these challenges.
- 5.2 Shortage of Frontline Forest Staff during Programme Implementation (2013-14)
 - It was reported that there was shortage of frontline staff like foresters and forest guards in the division during 2013-14 of CAMPA programme implementation. However, recently fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and now it was normal capacity was okay. But the programme had adverse impact on quality and outcome due to shortage of staffs during 2013-14.
- 5.3 Low wage Rate of Forest Department as compared to Industrial sector
 - Wage rate of forest department (average Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (Rs. 400-500 per day) causing hardship and limitation in finding labour force during peak plantation season and project work, it adversely impacted quality and outcome of the programme.
- 5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate
 - Due to high rate of urbanization and industrialization in most part of the project area, therewas high demand of labour force and hence the forest department had to face shortage of labour. In industrial sector average wage rate per day was Rs. 400-500 while it was Rs. 213 in forest department.
- 5.5 Lack of infrastructure in the Division and Range Level Offices.
 - At division level there was no problem of basic infrastructure including vehicle but range level offices were facing shortage of necessary vehicles for day to day activities as reported by the project authority. It impacts the performance of staff and quality and outcome of project work.
- 5,6 Growth and Survival of Plantation Faced severe beating due to several Factors
 - Important factors having adverse impact on growth and survival of plantation were damage caused by wild animals like, rabbits, blue bulls and purcupines, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), ematic monsoon rain, rapid urbanization, etc.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

On the basis of foregoing description, analysis and assessment of the CAMPA programme and interviews held with forest officials, the following suggestions and recommendations are proposed for improvement in project output and efficacy. It is as follows:

6,1 Suggestions and Recommendations

- 6.1,1 Control on Grazing by Domestic cattle and Wild Animals
 - The project authority should adopt a viable strategy to check or at least minimize the menace of rampant grazing by domestic animals in most part of the project area. Wild animals like blue bulls and rabbits in some part of project areas also caused damage to plantation. Local community should be motivated to adopt stall feeding to their animals.

6.1.2 Make Elaborate Arrangement for Protection and Maintenance, of Plantation

There should be a suitable provision of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing of barbed wire should be adopted as per requirement to certain locations and type of plantation. It was observed that barbed wire fencing was very common at most plantation sites. It is suggested that in urban and suburban areas the project authority should adopt gabions of Iron, brick or wood for better survival and higher outcome.

6.1.3 Fill all Vacant Posts of Frontline Staff on time through Proper Recruitment Process

e All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure on existing staff. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was felt badly during 2013-14 of project work.

6.1.4 Make a Provision of fine /punishment against Illicit felling and Damage of Forest Wealth

A provision of fine /punishment or both should be levied against all persons involved in unprotected grazing and deliberate damage to plantation. Such punishments or fines could work as deterrent among the local community. However, the project authority said that such provisions are present and adopted when required as per the forest rules and guidelines.

6.1.5 Run a capacity-building Programme to Impart knowledge and hone skills

Workshops and Capacity building programmes should be organized by involving field level forest staffs along with some willing local community to impart skill enhancement and better knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.

6,1.6 Make the protection and maintenance funding for Four years to bring higher outcome

 There should be regular funding provision for four consecutive years for protection and maintenance of plantation for better outcome.

6.1.7 There should be regular, systematic and effective monitoring and evaluation system.

Monitoring and evaluation is critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M · & E wing of forest department was based in Kamal comprising tone CF and two DFOs who take care of this work for the entire forestry programme. The entire plantation programmes and related work were monitored and evaluated once a year. The project authority should pay a better attention in this regard to increase its effectiveness.

6.1.8 Run an intensive awareness campaign to motivate local community people

It must be noted that for better awareness there should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad nataks, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

6.1.9 Make a provision of exposure visit to staff member and opinion leaders

There should be provision of exposure visits of forest staffs to advance nursery and plantation areas within the state and outside for better understanding and learning new ideas and knowledge. These are important methods of development process.

6.1.10 introduce the Concept and Practice of Carbon Credits

The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures in new ways, and it should forthwith be introduced in our country at the village level of environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.2 Interview with Project Authority (DFO, RFOs, Foresters, etc.)

- ♠ Summary of Interviews with Project Authority with Contact Details.
- a) Ms Vasvi Tyagi (IFS), DFO, Gurgaon Forest Division (T), Gurgaon district, Haryana, Mobile No.:+918860450860, Landline (O) No.: +91-1242322057
- b) Mr. Kulvindar Singh, DFO, DWLO, Gurgaon, Haryana, Mobile No. +91-9968163096, Landline
 (O) No.: +91-1242222272
- The evaluator interviewed DFO, Gurgaon (T), Ms Vasvi Tyagi and DFO, DWLO, Gurgaon, Mr. Kulvinkiar Singh along with RFOs and foresters after field visit of. We discussed issues relating to CAMPA implementation, its progress, management and overall outcome. The project authorities replied our queries candidly. However, there was no plantation work at DWLO forest division. Three assets were created during 2013-14 namely construction of boundary wall, repair and reinstallation of tube well and purchase of rescue vehicle.
- Project authority expressed confidence and satisfaction on overall outcome and progress of CAMPA programme during 2013-14 at both Gurgaon Forest Division (T) and DWLO forest division.

- With regard to selection and choice of plant species the project authority was of the view that nature of topography and soil, climatic condition, survival factor, less prone to grazing/blotic factor, demand and preference by local people, etc. were main factors in this regard. Most preferred plant species were Papri, Amaltas, Kachnar, Amaltas, Pilkhan, Bakain, Gulmohar, Neem, Shisham, etc.
- ♣ To ensure better outcome of the project the project authority made regular interaction and meetings with staff members, monitored their previous records, fixed the accountability on the basis of performance, etc.
- ♣ With regard to benefits and impact of CAMPA programme the project authority said that it generated employment opportunity and members of households who worked helped in earning additional income. On long term basis the plantation of CAMPA helped in improving ecology and environment of the area. Other assets created in the programme like boundary wall at Kadipur government high school, repair and reinstallation of tube well at Sultanpur National Bird Sanctuary and purchase of rescue vehicle at DWLO forest division Gurgaon, etc. also brought significant benefits.
- ♣ The DFO further said that reasons of plant casualty were mainly open grazing by loose domestic animal, Illicit felling of plant, shortage of labour forces, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.
- When asked about provision of fine /punishment against wrong indulgance and causing damage to plantation including grazing by domestic cattle, etc. the project authority said that existing Forest Acts are adopted when required.

6.3 Evaluator's Assessment



After field inspection of the programme, meeting with forest officials, local community people and verification of records / documents, it was concluded that above statements made by DFO, Gurgaon (T) Ms Vasvi Tyagi and DFO, DWLO, Gurgaon, Mr. Mr. Kulvindar Singh were true to large extent. The project authority carried out good work in CAMPA programme at Gurgaon forest division. Proper attention should be paid for intensive awareness campaigns by adopting modern tools of mass media for better impact. The system of monitoring and evaluation of the programme should be streamlined and carried out effectively on regular basis.

Photographs: Project Activities and Plantation Area

Bantation Sites: Plantation Sites-1: Ghata Bundh, Scheme: CA, Year: 2013-14, Area: 8 km linear, No. of Plants: 2000 (Jamun-1000, Papri (881), Neem (80), P Papri (50), Pilkhan (200), Smas (50), Amaltas (200), Ber (60), Pipal (80), Gulmohar (20) and Kachnar (300), Plantation Sites-2, Gurgaon Pataudi Road, Scheme: CA, Year: 2013-14, Area: 5 km linear, No. of Plants-1250, Species: Jamun (15), Papri (460), Neem (25), Shisham (95), (Bakain) (165), P Papri (450 and Pilkhan (40),

Creation of Assets: Boundary Wall, Repair and reinstallation of Tube well and Purchase of Rescue vehicle.



MODE	COLOUE OF EXAMIN	ATDOM C	STEED GA	TANK MENJAM	DESCRIPTION OF THE PROPERTY OF	no by Guigate	TOTAL DIMEN	OH SHIELD DESCOY	2444 III 649 <u>44</u>		10-1-1		<u>:</u>	2,10112	
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1	2		3	4	5	6	7	â	g	10	[11 _	12	13	14	15
91	Scheme		rget mant	Range	Block	Beat	Reach Name	Khasra No.KM/RD	GPS Reading	Sall Type	Nature of Plantation	Plantation Type: Clear	Target Achieved	Total Plants	Species Name with No.
		ha.	RKM									falling/New	FIKM	<u></u>	
1	State CAMPA (CA)	-	8	Gungalon	Wazirabad	Wazwabad	Ghata Bundh	RID Ö-Tall	N28,24,42,08 E077.06.42.4 N28.24.56.9 E077.06.42.4 N28.25.05 E077.6.47.3	Sandy		New	8	2000	Jamun-1000, Papri (881), Neem (60), P Papri (50), Pikhen (200), Siras (50), Amaltas (200), Ber (60), Pipal (80), Gulmohar (20) and Kachnar (300
2	State CAMPA (CA)	1	5	Gurgeon	Famukhnsgs	Wazkabad	Gurgaon Pataudi Road	KM 3-13 (L&R)	N28,26,29,85 E76,58,52,54 N28,24,54,25 E76,53,58,55	Sandy	_	New	5	1250	Jamur (15), Pagri (460), Neem (25), Shisham (95), (Bekain) (165), P. Papri (450 and Plikhan (40),
_	Total	_	13										13	3250	_

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SI	Item of Work	Sanctioned		Actual Exp	enditure	Deviation If Any
		Amount Rs.	Amount	Quantity	Location/Remark	
1	Repair and Re-installation of Tube well	1300000	300000	2	SNP	Completed
2	Purchase of Rescue Vehicle		601451	. 1	Entire Div i sion	Purchased/Alteration Pending
	Total	1300000	901451	3		<u> </u>

Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi



MONITORING & EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY MAHENDRAGARH FOREST DIVISION IN MAHENDRAGARH DISTRICT OF HARYANA

Duration of Evaluation: 2013-14

Final Report

Submitted to
OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA
VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA



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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

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April, ,2015

Conducted by

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Mahendragarh Forest Division in Mahendragarh District of Haryana (2013-14)" was successfully completed. However, it would not have been possible without the kind support of many individuals and organizations working and associated with Locus Research & Consultants Pvt. Ltd. I would like to extending sincere thanks to all of them.

first of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal and other officials at PCCF office especially DCF, Mr. Garg, Mr. Hembram along with office staff Mr. D.P. Tyagi for reposing faith and awarding the honour of Monitoring & Evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency.

I also express my thanks to DFO, Medic Forest Division, Mr. Ved Prakash along with RFOs and other forest staffs. My interaction with them helped in understanding different aspects of CAMPA implementation and its progress during 2013-14.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly Indebted to Mr. BKP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

Last, but not least, I would like to express my gratitude to Dr. Lakshman P. Semwal, Ajay Rout, Prashant Kumar, Gaurav Kumar and Mr. Kaushal Kishor Singh for assisting me during field visit and collection of primary and secondary data, conducting interviews, data tabulation, drawing of diagrams and graphs, etc.



Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd. New Delhi, April, 2015



Locus Research & Consultants Pvt. Ltd. 212, Vasant Apertments, Vasant Vihar New Delhi-110057

Preface¹

(Mahendragarh Forest Division-2013-14)

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates, i.e. a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA. based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation. Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act. 1980 and presently lying with the Adhac CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana Implemented by Mahendragon Forest Division by PCCF office on professional terms and condition. Locus is registered under Companies Act of 1956, Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

During 2013-14 a total 184,172 RKM/ha f (164,172 RKM and 20 ha) land was treated under CAMPA by adopting CA (135,372 RKM) and NPV (28,8 RKM and 20 ha). Rs 84,24 lakh was spent against the target of Rs. 111.32 lakh. A total of 0.45 lakh plant species of *Papri, Shisham, Lasaura, Amia, Neem, Jamun, Bakain,* etc. were planted in the project at 16 places/sites.

Average survival percentage of seedlings estimated was 71%. The survival percentage was 77 % at RF Duloth in Mahendragarh range while it was 67% at Mahendergarh Satnall Road, KM: 11-18, L/R. Average. height of plantation was 5 feet. Growth and health of plantation was good, Average grading awarded to the programme was 6.5 (on 1 to 10 scale), which was very good.

In the process of evaluation, members of evaluation team interacted with field level forest staff and local community. At most places local people were happy with the efforts made by forest department, Plantation: Journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Defhi

April, 2015



lesto K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

7		ACRONYMS
	ACF	Assistant Conservator of Forests
1	Affo	Afforestation
ı	APCCF	Additional Principal Chief Conservation of Forests
ı	APDs	Annual Plan of Operations
ı	AR	Artificial Regeneration
ı	CA	Compensatory Afforesiation
ı	CAMPA	Compensatory Afforestation Fund Management and Planning Authority
ı	CCF	Chief Conservator of Forests
ı	CEC	Central Empowered Committee
ı	CF	Conservator of Forests
ı	ĊN	Compartment Number
ı	CPT	Continuous Protection Trench .
ı	DCF	Deputy Conservator of Forests
ı	DFO	Divisional Forest Officer
ı	DG-forests	Director General Forest
1	DWILD	Divisional Wild Life Officer
	ENF :	Establishment of Natural Forest
ı	FPA	Entry Point Activity
ı	FDA 1	Forest Development-Agency
ı	FGD :	Focus Group Discussion
ı	FTC	Forest and Tree Cover
ı	GOI '	Government of India
ı	GP\$ 1	Global Positioning System
ı	Ha .	Hectare
ı	JFMC i	Joint-Forest Management Committee
ı	MRE	Monitoring & Evaluation
ı	MFP	Manor Forest Produce
ı	MÖEF	Ministry of Environment & Forests
ı	NAEB	National Afforestation & Eco-Development Board
ı	NAP	National Afforestation Programme
ı	NCH	Nangal Chaudhary
ı	NGO	Non-Government Organization
ı	NPY	Net Present Value
	NTAP	Non-Timber Forest Produce
1	OBC	Other Backward Castes
	PCOF	Principal Chief Conservator of Forests
	PF DCA	Protected Forest
	PRA ROF	Participatory Rural Appraisal
	RED	Rehabilitation of Degraded Forest Research and Evaluation Division
1	RF.	Reserved Forest
	rfô	Range Forest Officer
	RKM	Row Kilometer
	RO	Range Officer
	SC	Scheduled Castes
	SF	Social Forestry
	SMC	Soil & Moisture Conservation
	চা	Schoduled Tribes
	TOR	Terms of Reference
	UF	Un-class Forest
1	VFC	Vallage Forest Committee

Local Name and Botanical Name of Plant Species

SL. No.	Common Name	Botanical Name
1.	Amla	Emblica Officinalis
2.	Arjun	Terminalia arjuna
з.	Bakain	Melia azedarąch
4.	Jamun	Terminalia arjuna
6.	Lasaura	Cordia Bixa
6.	Neem	Azadirecta indica
7.	Paprl	Holoptelea integrifolia
8.	Pipal	Ficus religiosa
9.	Shisham	Dalbergia sissoo

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2013-14 Mahendragerti Forest Division, Mahendragerti District, Heryana

	Average Grading on a Scale of 1 to 10	
ftem/Aspect	Project Components	Value
Quantitative Aspects	Pinysical	8
,	Financial	- 8
Qualitative Aspects	Survival	7
·	Health of Plantation	- 6
	Maintenance	
	Sustainability	Ð
JFM/Social Aspects	Degree of Peoples' Participation	5
•· ···· • · · · · · · · · · · · · · · ·	Salisfaction over Perceived Senefits by the Local Population	5
Overall Grading (Very Go		8.5

Evacuation	Summary	
CABGUURY	3 Juliilliai Y	

1.0 INTRODUCTION

Monitoring and evaluation of CAMPA programme of Mahendragerh Forest Division in Mahendragerh district was conducted in the month of April 25-29, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based agency. During 2013-14 a total 184.172 RKM/ha (164.172 RKM and 20 ha) forestland was treated under CAMPA by adopting CA (135.372 RKM) and NPV (28.8 RKM and 20 ha) scheme of plantation. A sample of 60.21% (110.896 RKM/ha) was drawn for field visit of plantation area and assessment of other assets and also to estimate survival percentage.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10° July 2009, Supreme Court issued orders that there would be a CAMPA as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-8,
 Panchkula.

3.0 OBJECTIVES OF THE CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitet within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - Research, training and capacity building.

4.6 GEOGRAPHIC LOCATION /AREA OF MONITORING & EVALUATION

The study covered the elentire Mahendragarh Forest Division in Mahendragarh district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2013-14.

6.0 NEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created.
 - To essess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

B.O METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purposive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. A sample of 68.60% (63.58 RKM/ha) was drawn during field visit of plantation area to estimate survival percentage of plantation. Sample plot of 0.25 ha (50meterx.50meter) was adopted on block forest area to count applicable at random location to estimate survival percentage. Row counting of plants was adopted.

B.O PROFILE OF THE STUDY AREA

- Haryana was created on November 1, 1966 with seven districts. Subsequently 14 other districts were included through restructuring the previous ones. Total geographical area of Heryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patiern about 3.64% (1395 sq km) area goes to forestland white tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6,60% of the state.
- Mahendragarh district is situated in the south western comer of Haryana. It is located at 28.28"N 76.15"E. According to India State of Forest Report-2011, Mahendragarh district has 3.82% area under forest cover against 3.64% of state average. Main plant species found and adopted under CAMPA programme in the district were Papri, Bakain, Shishem, Arjun, Kiker, Neam, Pipel, etc.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- 184,172 RKM/ha (164,172 RKM and 20 ha) forestland was treated under CAMPA by adopting CA and NPV schemes of plantation during 2013-14.
- Rs 84.24 lakh was spent in the project against the target of Rs. 111.32 lakh.
- 0.45 lakh plant species of Papri, Shisham, Lasaura, Amia, Neem, Jamun, Bakain, etc. were planted in the project at 16 sites.
- Average survival percentage of seedlings estimated was 71%. The survival percentage was 77 % et RF
 Duloth in Mahendragarh range while it was 87% at Mahendragarh Satural Road, KM: 11-18, L/R.
 Average height of plantation was 5 feet. Growth and health of plantation was good.
- Two types of registers were maintained namely cashbook and work book. DFO said that plantation journal would be prepared about for all the plantation sites.

- Monitoring and Evaluation (M & E) of CAMPA along with other forestry programmes are conducted by a separate wing called M & E Wing. The last evaluation of state CAMPA Haryana of Mahendragarh Forest Division was conducted in October 2014, it consists of one CF and two DCFs, its head office is at Kamal in Haryana.
- An Independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were estisfectory as reported.
- Bank account of CAMPA Programme of Mahendragarh forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Mahendragarh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Factors impacting choice of species were topography, soil type, climate, rainfall, suitability in the area, economic value, preference by locals, etc. Project authority called the final shot in this regard.
- Improvement in soil moisture conservation was observed at most plantation sites of CAMPA.
- Limited natural regeneration of plant species in the plantation area was found. In urban and suburban
 zone it was negligible while on block forestiand there were some glimpses of it.
- Quality of Work in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.
- Open and rash grazing by loose domestic animals, wild animals like, rabbits, blue bull and porcupine, destruction by human beings, un(avorable terrain, poor soil condition, extreme nature of climate (vary high temperature in summer low in winter), erratic nature of monsoon rain, etc. impacted Growth and Survival of Plantation
- Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. Barbed wire and bush fancing were found at most plantation sites under protection of plantation. In urban areas brick/iron/wood gabions were also adopted along with barbed.
- Motivation and Technical Competence of Personnel Involved in the Project was found satisfactory. Range Forest Officers (RFO), foresters and forest guards were balled to ţackle necessary work. Temporary/daily wages workers, cattle watchers, etc. were lacking these skills to deal with new challenges of the programme.
- Role of Local People in Project Work was far from satisfactory. There was low participation of local community in the programme. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA accrued both direct and indirect benefits in the project area. Additional geographical area came
 under forest cover, it helped in improving quality of ecology and environment as well as micro-climate of
 the area.
- Formation of SHG in the Project was optional for the project authority to provide additional benefits of community in the project area. There was no attempt at this front from the project authority.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

- Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2013-14 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial establishments and urban areas (@Rs.400-500 per day). It had adverse impact.

- Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part
 of the project area and in NCR region.
- Inadequate infrastructure at range level offices impacted performance and quality of work as reported by some officials.
- Biotic and natural factors like wild animals like, rabbits, blue bulls and porcupines, terrain, poor soil
 condition, extreme nature of climate (very high temperature in suimmer and low in winter), erratic
 monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Measures should be taken to check grazing in the area. Stall feeding of domestic animals should be promoted among local community through require ewareness and motivetion.
- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gabicna of Iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to
 ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes, it should be carried out regularly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pamphiets, posters, wall writings, slogan shouting, railies, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- Selection plantation species should be based on scientific parameters and local factors. There was adoption of high proportion of Papri at most plantation sites during 2013-14. The project authority agreed with our view points and assured us that due attention would be given in future plantation.
- The concept and practice of carbon credits is part of the global efforts to tackle greenbouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environmentrelated mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries, Forests meet the livelihood needs of people living in and adjoining area in about 1.73 takh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chalmnarship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA Issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes, MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The Supreme Court order of July 10, 2009 directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - II. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal
 amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority

set up by the Supreme Court Order of May 2006 under the chalmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- I. Conservation, protection, regeneration and management of existing forests;
- il. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- iii. Compensatory afforestation;
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
- v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for Ilquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months, it is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA, it is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV), Catchment Area Treatment Plan or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the Forest (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - · Grants or aid received if any:
 - Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monles received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1,3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Members. Principal Chief Conservator of Forests will be its Members.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-I), Chief Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two aminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State CAMPA is intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works.
 Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive mories collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government it may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory Afforestation
 - Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - ♣ Environment Protection and Sustainable Forest Management.

1.5 Geographic Location of Monitoring & Evaluation

- The study area covers the entire Mahendragarh Forest Division in Mahendragarh district of Haryana.
- 1.6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.e. 2013-14.

1.7 Components of the Project

- Main components of CAMPA are as follows:
 - People's Participation
 - Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - Monitoring and Evaluation of the programme
 - Conservation and protection of forests, infrastructure development, wildlife conservation and protection, etc.
 - · Extension and awareness
 - Monitoring of the programme, etc.

1.8 Project implementing Agency and Proposed Activities of the Programme.

 A brief outline of the project agency and programme implementation is given below in table-1.2

Table 1.2: Implem	ienf	ing Agency and Proposed Activities of the Programme
Project Implementing Agency	_	
◆ District	:	Mahendragarb
◆ Forest Division	2	Mahendragarh
◆ Forest Circle	;	Gurgaon Circle, Gurgaon
♦ State -	:	Haryana
Project Location		
 Watersheds/Sub-watersheds 	;	NA .
 Devalopment Blocks 	;	NA.
♦ Forest Ranges (3)	:	1.Mahendragarh, 2. NCH, and 3. Nameul. CAMPA plantation was carried
		out at Mahendragam and Namaul ranges only during 2013-14.
♦ Project Sites	:	16 (Sbiteen)
Assets/ Infrastructure Developme	r <u>it /</u>	ctivities, if any
♦ N.A.		
Preparation of Plantation Journal	an	Record Upkaep
 There was not any separate 	• 11	egister or Plantation journals for plantation site. However, the project
		which had the details of plantation and other assets of the programme.
	ect	authority, the avaluator discussed the importance and benefits of
plantation journals.		
Project Duration, Area and Cost		
 Project Duration 	;	2013-14
Project Area (78.8 RKM)	:	Target: 184.17 RKM/ha (164.172 RKM and 20 ha)
◆ Project Cost	:	Target: Rs.84.24162 lakh and Achievement: Rs. 111.3241 lakh
Proposed Strategies and Salient		
 There was no provision of VF 		· -
 Plantation was carried out un 	ider	NPY and CA schemes

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, Impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

 Scope of study is confined to Mahandragarh Forest Division in Mahandragarh district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - · To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources,
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.
- Sample Selection. Size and its Distribution: A sample of 60.21% (110.896 RKM/ha) was drawn for field visit of plantation area and other assets to estimate survival percentage from the total target of 184.172 RKM/ha. To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting the plantation at random locations along with row counting keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the <u>Project Concept</u>, <u>Strategy Objectives and Methodology</u>.
 - Chapter-2 gives the Profile_of the Project Area_and its_Location.
 - Chapter-3 discusses Quantilative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with <u>Project Constraints and Limitations</u>.
 - Chapter-6 provides Suggestions and Recommendations.

1.14 Limitations of the Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing-situation. In-depth discussion with various stakeholders of the programms helped a lot in this regard.

Chapter-2

Profile of Project Area

2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state
 - comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala <u>Qivisino</u> has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar.
- Gurgaon <u>Division</u> has six (6) districts namely Palwal, Mahendragarh, Mahendragarh, Gurgaon, Rewarl, and Mahendragarh districts in its jurisdiction.
- HARTYANA

 DESTRICT MAD

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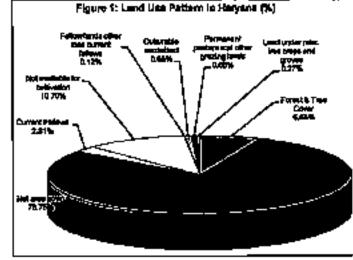
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- Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Mahendragarh districts.
- Rohtak Division also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonipat in its jurisdiction.

2.1.1Land Use Pattern of Haryana

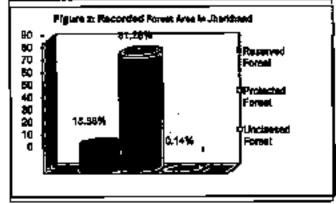
• Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland while area under tree cover is 3.16% (1395 sq km). Thus forestland and tree cover together covers 6.80% of the state geographical area.



 Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation (13.11%), Current fallows (2.40%), Permanent pasture and other grazing lands. (0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use (India State of Forest Report 2011, FSI Delva Dun).

21.2Recorded Forest Area in Haryana

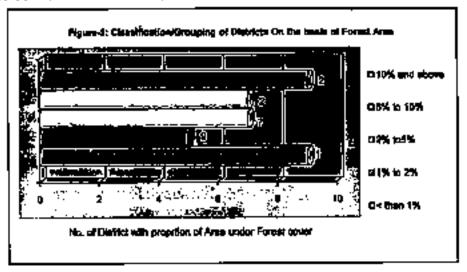
- ♦ The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries.
 This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. Refer Figure-Z.

2.1.3District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1: Two districts namely Punchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group:2: Two districts namely Gurgaon (8.35%) and Mahendragarh (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala, Palwal, Faridabad, Mahendragarh Bhiwani, Rewari and Kalthal fall in the category of 2% to 5% forest cover.



- Group-4: Nine districts namely Hisar, Jhajjar, Kamal, Kurukshetra, Panipat, Rohtak, Mahandragarh, and Sonipat and they fall in group of 1% to 2% forest cover.
- Group-5: One district namely Fatehabad which has less than 1% area under forest cover.

 Refer Figure-3 for further information.

2.2 Profile of Mahandragarh District and Forest Division

 Mahendragarh district is situated in the south western corner of Haryana. It is located at 28.28'N 76.15'E, it has an average elevation of 262 metres (859 feet). Mahendragarh district is bounded on the north by Bhiwani and Rohtak districts, on the east by Rewari district and Alwar district of Rajasthan, on the by Alwar, Jaipur and Sikar. districts Rajasthan, and the west by Sikar and Jhunjhunu districts of Rajasthan. The district occupies an area of 1,859 sq. km. Namaul city is the administrative headquarters of the district. Mahendragarh is one of the very few districts in India where the name of the district and its main town are different.

 It is pamed after Maharaja Mahendra Singh who was the ruler during the Mughal era. It is situated at the bank of Dohan river (which was a seasonal river), which is at the verge of extinction. Mahendragarh district is divided into 4 tehsils, Namaul, Atell, Kanina and Mahendragarh and 1 sub-tehsils, namely Nangal Chowdhary. There are 4 Vidhan Şabha constituencies in this district:



Ateli, Mahendragarh, Narnaul and Nangal Chaudhry. All of these are part of Bhiwani-Mahendragarh Lok Sabha constituency.

As of 2011 it is the third least populous district of Haryana (out of 21), after Panchkula and Rewart. It has a population of 9.22 roughly equal to the nation of Fiji or the US state of Delaware. This gives it a ranking of 462rd in India (out of a total of 640). The district has a population density of 485 inhabitants per square kilometre. Its population growth rate over the decade 2001-2011 was 13.43%. Mahendragath has a sex ratio of 778 females for every 1000 males and a literacy rate of 78.9%.

2.3 Forest Cover in Mahendragarh District

 According to India State of Forest Report-2011, Mahendragarh district has 3.82% area under forest cover against 3.54% of state average. Main plant species found and adopted under CAMPA programme in the district were Papri, Lasura, Amla, Bakain, Shisham, Neem, *Pipal,* etc.,

Chapter-3

Quantitative Evaluation and Findings

3.1 Classification of Area Covered/Treated

 During 2013-14 a total 184.172 RKM/ha (164.172 RKM and 20 ha) forestland was treated under CAMPA by adopting CA (135.372 RKM) and NPV (28.8 RKM and 20 ha) scheme of plantation. The plantation area was spread over in all two ranges of the division namely Mahendragarh and Namaul. Refer table-3,1 for detailed information.

EL No.	Range	Plantation/Project Site	Land Calegory	Schame of President	He.	RKM	Year of Plantation
1	Marmaul	R.F. Krishnaneti	R.F	GAMPA NPV ANR	20		2013-14
2	M part	R.F. Duloth	R.F	CAMPA NPV Intended	_	28.5	2013-14
3	March	RLF. Dulom	R.F	CA.	_	1D	2013-14
4	Magam	Maharidorgath Bawana Rd	Road	CA,	_	7	2013-14
ъ.	Magadh	Maltendergarin Setmal Rd	Roed	C.A.			ZM3-14
8	Magaett	Rayori Karitra Rd	Road	CA		10.304	2013-14
1	M.gateh	Shme Karvina Rd	Road	ÇA	_	15,0	2013-14
8	Named	Kamentys spp. Rd	Road	CA.		14,4	2013-14
•	Na grapus	Nehru Neger App. Rd	Road	CA.		10	2013-14
10	Name	Namen Kullajpur Rd	Road	CA		10	2013-14
11	Marreel	Named Rambess Rd	Road	CA.		9.9	2013-14
12		Name I Mitampur Rd	Road	CA		10	2013-14
13	Macrosco	Ottani Bhetota Khanpur Rd	Roed	CA	_		2013-14
14	Macrosia	Parasul Nameul Rd	Road	CA		-	2013-14
15	Marriarul	Rewort Hernaul Rd	Road	CA		14	2013-14
16	Named	Barrellane Kechchi Nahar	Censi	Ç.A.	_	5.700	2013-14
\rightarrow				Total	20	144,172	1
						64.172	-1

3.2 Physical and Financial Target and Achievements

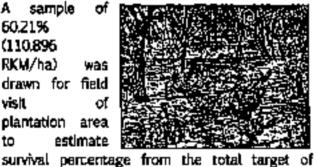
• Total expenditure incurred in the project during 2013-14 was Rs 84.24 lakh against the target of Rs. 111.32 lakh Plantation work was carried out at 16 locations/sites covering two forest ranges of the division. Refer table 3,2 for detail information.

		Table-3.2: Phys	sical and Fina	notal Target and Achieve	metric (2)	012-131		_
ŠL Mo.	Range	Plantation/Project \$25e	Lend	Scheme of		al (Area)	- Company	(Re. le Lekh)
			Cathegory	Plantellon.	H■⊾	AKM	Target	Actionment
1	Neurosul	R.F. Krishnawad	Ground	CAMPA NPV ANR	20	 	344	\$.16
3	Mgarh	R.F. Duloth	Ground	CAMPA NPV Inigated		28.6	11 8	10.92
3	Maget	R.F. Duioth	Ground	CA	-	10	284	2.5
4	Migath	Mahandergarh Bayrana Rd	Road	CA		7	1,50	1.95
6	Magath	Mahundergerh Baimai Rd	Road	GA		1 6	1.70	1.68
â	Mgath	Rawart Kanina Rd	Roed	CA		10,304	2.80	2.00
7	M.garh	Stage Kartina Rd	Road	CA	_	14.6	4.10	4.09
ė.	Name of the last o	Kamarêya app. Rd	Roed	CA		14.8	4.20	4,15
В	Namen	Netru Nager App. Rd	Road	CA		10	2.80	2.80
10	Named	Nameul Kultulger Ret	Road	CA		10	2,80	2.80
11	Marmond	Nampul Rembass Rd	Road	CA		6.9	2.50	2.49
12	Named	Named Nicomput Rd	Road	CA		10	2.70	7.80
13	Management 1	Chart Shatota Xhangair Rd	Road	CA		1 6	2.02	2.25
14	Nameu	Rewart Mantaut Rd	Road	CA		B	1.70	1,58
15	Maintiple	Rewart Nameul Rd	Road	CA.		14	3 58	3.94
16.	Метчец	Mandfana Kechchi Meher	Carrel	GA		8,765	1.54	1.62
		Total	,	·	20	184,172	83.02	B2.04
Othe	r esthyltheniA	sayts Creeied					00.00	
1	Meintenand	a of Plantation		· -		$\overline{}$	3122162	3983937
2	Raising of	P	 			 	9,22,02	106000
3	Range Cus		1 	 		 -		1309474
4		n of Tuba well	ullet			+		360000
		Total	•	 		 	31,22182	\$2,28411
		One of Total			20	184,172	84,24162	111.3241

- 3.3 Inventory/ List of Plantation
 - A total of 0.45 takh plant species of Papol, Shisham, Lasaura, Amla, Neem, Jamun, Bakain, etc. were planted in the project at 16 places/sites comprising 184.172 RKM/ha forestland. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

5L Ho.	Manue of Range	Plantation/Project StarVElage Name	Schemel Madél	Aphlewed		Mo. of plants	Marne of Plant	Year of Plentrikos
<u> </u>				Ha.	RKM			
1	Manuaul	R.F. Krishmannett	CAMPA NPY ANR	20	1	4000	P.Papri	
2	Mgarh	R F. Dukith	CAMPA NPV Inigated	_	29.5	5544	Papri, Amig Labura	2013-14
3	Migarit.	R.F. Duketh	CA	-	10	26 00	Papin, Lissaura	<u> </u>
4	Milgarh	Mathematica participants (Mathematica participants) 1 1 1 1 1 1 1 1 1	CA		7	1760	Papo Shisham	1
5	M.gath	Mahandergarh Sainsii Rd KM: 11-18	CA		6	1500	Papri	1 '
6	M-gerh	Payran Kanina Pd KM: 26-32	CA	_	10,304	7576	Papel	1
7	Migath	S8ma Xarina Rd KMt 18-28	CA	_	14.B	3680	Papri	1 .
ò	Narrau	Kameriya app. Rd KM; 6-15	CA	_	14.8	3700	Papri	1 !
9	Nemed	Netru Negar App. Rd KM: 0-6	ÇA	-	10	2500	Papri] '
10	Nerreul	Nemaul Kuljejour RC KAI; 0-7	GA	_	10	2500	Papri	1
11	Harraul	Nameul Rambasa Rd KM: 0-5	GA.	_	8.8	2225	Papri	1
12	Name	Narroul Nizemper Pd KMt 7-14	C.A	_	10	2500	Papri	1
13	Named	Ohani Bhatola Khanpur Rd KM: 0-8	ÇA	_	8	2000	Papri	1
14	Name	Flower Nortural Ad KM: 28-38	C.A.	_	6	1500	Papri	1
15	Nemed	Rewart Nameut Rd KM: 36-40	GA.	-	14	3600	Papri	1
18	Named	Mandlene Kachchi Nahar KM: 0-3	CA.	_	6.768	1442	Papri	
		TOTAL		20	184,172	48043	1	
		· ·		184,17	2 RKM/ha			

- 3.4 Analysis of Sample Plantation and Survival Assessment
 - * A sample 60.21% (110.896)RKM/ha) was drawn for field visit of plantation area estimate







184.172 RKM/ha.

 Average survival percentage of seedlings estimated was 71%. The survival percentage was 77 % at RF Duloth in Mahendragarh range while it was 67% at Mahendergarh Satnali Rd, KM: 11-18, L/R. Average height of plantation was 5 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.

		Table 3.4: Analysis of Sample Planta	tion sites e nd	Assessment	of Surviva	Ĺ		
SL No.	Range	Plantation Ste	Schellin	Area (RKO4/hei)	No. of Plants	Plants Strongd	Suntail (%)	Year
1	Mahendragarh	Mahandergarin Satnali Rd, FM: 11-18, L/R	CY	6	1500	1005	67	
2	Mahendragarh	Rowari-Kanina Rd, KM: 28-34, L/R	ĊA	10.304	2576	1803	70	
3	Mahendragarh	Duloth RF	CA.	10	2500	1825	73	
4	Mahendraguch	Dukoth RF	NPY-krate	28.8	7200	5544	77	
5	Namaul	Krishnawati RF	MPY-AMR	20	5000	3700	74	2013-14
6	Nameul	Nehru Nagar App. Road, KM; O-5	CA	10	2500	1800	72	
7	Nameul	Mandlana Kacht Nahar, KM: 0-3	ß	5.792	1448	1028	71	
6	Narroad	Remart-Namani Road, KM: 35-40.	CV .	14	3500	2380	68	
9	Nameut	Rewart Nemeut Rd XM: 28-35	č	6	1500	1035	. 69	
				110,696	27724	20120	n	

3.5 Registers/Records Maintained in the Project

'• Cashbook and work registers were maintained by project authority. DFO of the division assured the evaluation team with regard to preparation of plantation journal for all the plantation sites conducted under CAMPA programme.

3.6 Monitoring and Evaluation System in the Project

The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate evaluation wing called M & E Wing, it is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana at Mahendragarh forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF), its head office is at Karnal in Haryana, it was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.

3.7 Involvement of Independent Agency for Evaluation of CAMPA

The project authority reported that an independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.

3.8 Bank Account Details and Flow of Funds.

 Bank account of CAMPA Programme of Mahendragarh forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Mahendragarh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

Chapter-4

Qualitative Analysis and Findings

4.1 Preference and Basis of Species Selection

 Topography, soil type, climate, rainfall, sultability of species in the area, preference shown by local community, etc. were main factors in the selection of plant species. However, the project authority took decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

4 Wherever the plantation was conducted under CAMPA programme there was some improvement in soil moisture conservation. However, limited provision of funds on this head of the programme did not provide much option to the project authority to carry out additional work related to it.

4.3 Assessment of Survival Percentage

Average survival percentage of seedlings estimated was 71%. The survival percentage was 77 % at RF Duloth in Mahendragarh range while it was 57% at Mahendergarh Satnali Road, KM: 11-18, L/R. Average height of plantation was 5 feet. Growth and health of plantation was good. To estimate survival percentage a sample plot of 0.25 ha (50meterx50meter) was adopted at random location and row counting of plantation was also adopted to count the seedling at random location. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area.

 Natural regeneration of plant species in the area was hardly observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone there were some glimpses of it due to presence of other species around plantation area.

4.5 Quality of Work

 Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

4 Grazing by domestic animals, damage wild animals like, rabbits, blue bull and porcupine, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. were important factors that impacted growth and survival of plantation.

4.7 Protection and Maintenance of Plantation

 Barbed wire and at few places bush fencing were important measures at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions. were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be better care of plantation through elaborate fencing and regular care. The process of awareness raising and motivation of local community should be adopted in the project at regular intervals.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

◆ There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed batter efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

CAMPA programme accrued both direct and Indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

4 The project authority did not take any effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT.

There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below,

5.1 Unprotect Grazing by Loose Domestic Animals

Open grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area. It led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff

 Project authority reported that there was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation. However, fresh recrultment was conducted in the entire state of Haryana to fill the vacant positions and recently this problem was over. But impacted the programme adversely.

5.3 Low Wage Rate of Forest Department as Compared to Private Sector.

Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.

5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate

 Due to high rate of urbanization and industrialization in some part of the project area and in NCR region, there was high demand of labour force and hence the forest department had to face shortage of labour as reported.

5.5 Inadequate Infrastructure in the Division and Forest Ranges

At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority. It impacted performance and quality of work as well as outcome of project.

5.6 Other Biotic and Natural Factors Impacting Survival of Plantation

Biotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy, it is as follows:

- 6.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals
- Some viable measures should be adopted to check or at least minimize harzings. Wild
 animals like blue bulls and rabbits also caused similar damage to plantation in some part of
 project areas as they graze green leaves of plants. Stall feeding of domestic animals should
 be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
- The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation, it is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh
 recruitment of staff to ease the pressure. For effective implementation and management of
 afforestation programme adequate number of staff was prerequisite. However, currently there
 was no shortage of such staff but it was during 2012-13 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.
- 6.5 Make Four Years of Protection and Maintenance Funding
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- 6.7 Make Monitoring and Evaluation Regular, Systematic and Effective
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme, it consists of one CF and two DFOs. It head office is located at Kamal CAMPA programme along with other

forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

- 6.8 Intensive Awareness Campaign to Motivate Local Community
- There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.
- 6.9 Organize Exposure Visit for Staff Member and Local Community
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality and outcome of the programme.
- 6.10 Selection Plantation Species should be based on scientific parameters and local factors.
- There was adoption of high proportion of Papri at most plantation sites during 2012-13. The
 project authority agreed with our view points and assured us that due attention would be
 given in future plantation.

6.11 Introduce Practice and Concept of Earning Carbon Credits

The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures, it should be introduced forthwith in the project area at village level for environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option.

6.12 Interview with Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation team interacted interviewed DFO Mahendragarh (Mr. Ved Prakash, Mob:+91-9416365166, Office.: +91-1285220229) along with RFOs, Foresters and Forest Guards. A brief summary of interviews is as follows.
- DFO, Mr. Ved Prakash and other officials were happy with outcome and progress of CAMPA work carried out during 2012-13. About selection of plant species they were of the view that soll, climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, etc. were main factors. Most preferred plant species in the division were Papri, Lasaura, Amla, Neem, Bakain, Shisham, etc. Open grazing due high cattle pressure, rocky terrain, poor soll, erratic and low rain fall were main of factors plantation casualty. The project authority further said that all the field staffs were hard working and they owned responsibility and performed their duty well. There was need to work hard to improve the outcome of the programme.

6.13 Evaluator's Assessment

After field inspection, verification of official records and interaction with DFO and other stakeholders of the programme, it was concluded that above statements made by the project authority was true to a great extent. The project authority followed the stated guidelines of programme. Modern tools of mass media should be adopted for awareness campaigns for better impact, System of internal monitoring and evaluation in the programme should be streamlined and carried out effectively.



SI.	Type of land	Name of Scheme/	Name of Range	Name of Site	Khasra No.	Plantatio n Month		Jewed Prese	No. of Plants	Name of Species	Spacing (m)	GPS Coo	ordinates
_	(Forest/No n-forest)	component			KM/RD		На	RIKIM				Longitude	Latitude
ī	2	3	4	5	6	7	8	9	10	II	15	13	14
1.	RF	CA	Nemeca	R.F. Xriehnewati	NĄ	July	20	_	4000	P.Papri	4x4	NA	NA
2	RE	CAMPA NPY ANR	Mathendragarh	R.F. Oubits	NA	July	-	28.8	5544	Pepri, Avria Lacum	4x4	NA.	NA.
3.	R/F	CAMPA MPV	Mahendragarh	R.F. Dukoth	NA	July	-	10	2500	Papri, Lassuca	4x4	NA	NA
4.	Road	CA	Mahandragarh .	Mahandergarh Bawans Rd KM: 1.5-8	NA.	July	-	7	1750	Papri Shisham	4x4	NA.	NA.
5.	Road	GA.	Mahendragarh	Mahandargarh Sabrati Rd KM: 11-18	NA	July	-	6	1500	Papri	4x4	NA	NA
6.	Road	GA.	Mahendragarh	Rowari Kerima Rd KNA 25-32	NA	-yn[A	-	10.304	2570	Papil	4x4	NA.	NA
7.	Road	ÇA	Mahendragarh	Silvana Kardosa Rid MAC 18-28	NA	July	-	14.6	3650	Papri	4 x 4	NA.	- NA
a	Road	GA.	Hamaul	Kameriya upp, Rd Kult 6-18	NA	July	-	14.8	3700	Pepri	4 z 4	NA.	NA.
9.	Road	GA.	Named	Natiru Nager App. Rd KM: 0- 5	NA.	July	-	10	25700	Papel	4x4	NA.	NA
10.	Road	CA	Nameul	Nameual Kurtajohn Fild KMr 0-7	NA.	July	-	10	2500	Papri	4x4	NA.	NA
11.	Road	ÇA	Nameul	Named Rephase Rd KM: 0-	NA.	Элty	-	8.9	2725	Papri	4x4	NA.	NA
12	Road	CA.	Namali	Numeral Microphys Rd KM: 7- 14	NA.	Лæју	-	10	2500	Pagn	4x4	NA.	NA.
13.	Road	GA.	Nemous	Ohani Bhalota Khanpur Rd KM 0-5	NA.	July	-	8	2000	Pepri	4*4	NA.	NA
14.	Road	CA	Kemed	Romad Nameus Rd Klat: 28- 36	NA.	July	-	6	1500	Pepri	4x4	NA.	NA
15.	Road	GA.	Name of	Remod Nameul Rd KM; 35- 40	NA.	July	-	14	3500	Pagni	4x4	NA.	NA.
16.	Canal	C.A.	Nemeut	Nameliana Kachthi Nahar KM: 0-3	NA.	July	-	5.768	1442	Papri	4x4	NA.	NA
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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi

MONTORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED.

BY MEWAT FOREST DIVISION (NUH) IN MEWAT DISTRICT OF HARYANA

Duration of Evaluation: 2013-14

Final Report-

Submitted to

PIGE OF BRINGIPAL, CHIEF CONSERVATOR OF FORESTS, HARYANA VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA

April, 201

Conducted by

LOCUS RESEARCH & CONSULTANTS PVT. LTD.

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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi¹

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY MEWAT FOREST DIVISION (NUH) IN MEWAT DISTRICT OF HARYANA

Duration of Evaluation: 2013-14

Final Report

Submitted_to

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA
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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Mewat Forest Division (Nuh) in Mewat District of Haryana (2013-14)" was successfully completed. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal, and other officials at PCCF office especially DCF, Mr. Garg, Mr. Hembram and office staff Mr. D.P. Tyagi for reposing faith and awarding the work of Monitoring & Evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency.

I also express my thanks to DFO, Mewat Forest Division (T), Harish Walia along with RFOs and other forest staffs. My interaction with them helped in understanding different aspects of CAMPA implementation and its progress during 2012-13.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly indebted to Mr. BKP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Dinesh K. Singh

Director Locus Research & Consultants Pvt. Ltd. New Delhi, April, 2015



 Locus Research & Consultants Pvt. Ltd. 212, Vascat Apartments, Vascat Viber New Delhi-110057

Preface

Compensatory Afforestation, Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Suprema Count with the following mandates, i.e. a) by down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Process Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CANPA Haryana of **page 2016** forest division by PCCF office on professional terms and condition, Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

Ouring 2013-14 a total 155 RKM forestland was treated under CAMPA by adopting CA-TP scheme of plantation in All the three ranges of the division. Total expenditure incurred in the above activities was Rs. 55.82 lakh. A total of 0.388 lakh plant species of Papri, Bakain, Shisham, Arjun, Kikar, Balam, Khira, Tun, Jamun, Reuniha, Allanthus, Neem, Pipal, Ber, etc. was planted in the project.

Average survival percentage of seedlings estimated was 73%. The survival percentage was 75% at Nuh Drain under and it was 69% at Tauru-Kota Road. Average height of plantation was 5 feet. Growth and health of plantation was good. Average grading awarded to the programme was 5.5 (on 1 to 10 scale), which was very good.

Members of evaluation team interacted with field level forest staff and local community during field inspection. At most places local people were happy with the efforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

April, 2015

Dinesh-K. Singh

ocus Research & Consultants Pvt. Ltd

ACRONYMS

ACF Assistant Conservator of Forests.

Afforestation

APCCF Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee

CF Conservator of Forests
CN Compartment Number
CPT Continuous Protection Trench
DCF Deputy Conservator of Forests

DFO Divisional Forest Officer
DG-Forests Divector General Forest
DWLO Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Empy Point Activity

FDA Forest Development Agency
FGD Focus Group Discussion
FTC Forest and Tree Cover
GOI Government of India
GPS Global Positioning System.

Fandabad Division (T) Fandabad Forest Division Temitorial

la Hectare

JFMC Joint Forest Management Committee

M & E Monhoring & Evaluation
MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme
NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce
OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

PF Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
REO Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Kilometer
RO Range Officer
SC Scheduled Castes
SF Social Forestry

SMC Soil & Moisture Conservation

\$T Schedulad Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Village Forest Committee

Local Name and Botanical Name of Plant Species

SL No.	Common Name	Botanical Name
1.	Ailanthus	Ailanthus excelsa
2.	Arjun	Terminalia arjuna
3,	Bakain	Melia azedarach
4 .	Ber	Ziziphus mauritiana
5.	Blam Kheera	Kygelia pinnata
6.	Jamun	Terminalia arjuna
7.	Kikar	Acacia Arabica
8.	Neem	Azadirecta indica
9.	Papri	Holoptelea integrifolia
10.	Pilkhan	Ficus virens
11.	Pipal	Ficus religiosa
12.	Reunjha	Acacia leucophloea
13.	Shisham	Dalbergia sissoo
14	Tun	Toona ciliate

●1000000000

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2013-14 : Mewal Forest Division, Mewal District, Haryana

•	Average Grading on a Scale of 1 to 10	
ftem/Aspect	Project Components	Value
Juantitative Aspects	Physical	9
	Financial	8
Qualitative Aspects	Survival	7
	Health of Plantation	6
	Maintenance	6
	Sustainability	6
JFM/Social Aspects	Degree of Peoples' Participation	5
	Satisfaction over Perceived Benefits by the Local Population	5
Overall Grading (Very God	od)	6.5

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of CAMPA programme of Mewat Forest Division in Mewat district carried out during 2013-14 was conducted in the month of April 15-18, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency. A total 155 RKM forestland was treated by adopting CAVTP plantation scheme at 8 places in all three ranges. A sample of 83, 22% (129 RKM) project area was drawn for field visit and analysis of programme and to estimate survival percentage. Summary of findings of the study is given below.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court Issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1850
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Panchkule.

3.0 OBJECTIVES OF THE CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Iti. Compensatory afforestation:
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION / AREA OF MONITORING & EVALUATION

The study covered the elentire Mewat (Nuh) Forest Division in Mewat district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2013-14.

6.0 NEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - ماسود provide recommendations for improvement in future implementation and management.

B.O. METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purposive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. A sample of 83, 22% (129 RKM) project area was drawn for field visit and analysis of programme and to estimate survival percentage. 0.25 ha (50meterx50meter) unit/plot was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, counting of plants in row was adopted.

9.0 PROFILE OF THE STUDY AREA

- The state of Haryana comprises 21 districts, 45 sub-tehsils, 47 subdivisions, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use pattern about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- As per India State of Forest Report-2011, Mewat district has 8.5% area under forest cover.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- 155-RKM forestiand was treated under CAMPA by adopting Compensatory Afforestation scheme of during 2013-14. Plantation area was spread over all the three forest ranges namely Nuh range (44 RKM), FP Jhirka range (81 RKM) and Punhana range (20 RKM) in the division.
- Total expenditure of the programme was Rs 55.82 lakin against the target of same amount. Plantation
 work was carried out at 8 locations/sites covering all the three forest ranges of the division.

- 0.388 lakh plant species of Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Allanthus, Neam, Pipal, Ber, etc., were planted in the project at eight different sites.
- Average survival percentage of seedlings estimated was 73%. It was 75% at Nuh Drain and 69% at Tauru-Kota Road. Average height of plantation was 5 feet. Growth and health of plantation was good.
- Work register and cashbook were important registers maintained by project authority in this project.
 DEO of the division assured the evaluator that plantation journal would be prepared in all the plantation sites conducted under CAMPA programme when it was discussed with him.
- The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate evaluation wing called M & E Wing. It is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana at Mewat forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (OF) and two Deputy Conservator of Forest (OCF).
- The project authority reported that an independent agency called Agricultural Finance Corporation Ltd, of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.
- Bank account of CAMPA Programme of Mewat forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Nuh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Main factors in the selection of plant species were topography, soil type, climate, rainfall, suitability of species in the area, preference shown by local community, etc. were. However, the project authority took decision in this regard after taking into account of all these factors.
- CAMPA programme improved soil moisture conservation to extent. Limited provision of funds on this
 head of the programme did not provide much option to the project authority to carry out additional work
 related to It.
- Natural regeneration of plant species in the area was hardly observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone there were some glimpses of it due to presence of other species around plantation area.
- Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection.
- Grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), entatic nature of monsoon rain, etc. were important factors that impacted growth and survival of plantation
- Barbed wire and at few places bush fencing were important measures at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance.
- Forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers, cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

- There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area.
- CAMPA programme accrued direct and indirect benefits. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

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- Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial establishments and urban areas (@Rs.400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season.
 - Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area and in NCR region.
 - Inadequate Infrastructure at range level offices impacted performance and quality of work as reported by some officials.
 - Biotic and natural factors like wild animals like, rabbits, blue bulls and porcupines, terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), ematic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gabions of iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Viable measures should be adopted to check grazing problem. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out regularly
- There should be adoption of mass media too's like electronic media (mainly visual), leaflets, pamphlets, posters, well writings, slogen shouling, rallies, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Honbie Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC), These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The Supreme Court order of July 10, 2009 directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and Implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- i. Conservation, protection, regeneration and management of existing forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- ili, Compensatory afforestation;
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fooder and water; and
- v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monles received from various sources would be credited into the account of State CAMPA, it is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation. Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
 - b) The state government may also credit to the State CAMPA
 - Grants or aid received if any;
 - Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister. Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-I), Chief Conservator of Forests (Ptaming), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation. Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State CAMPA is intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted inclural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expanditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory Afforestation
 - ♣ Environmental services, which include:
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - Environment Protection and Sustainable Forest Management.
- 1.5 Geographic Location of Monitoring & Evaluation
 - The study area covers the entire Mewat Forest Division (Nuh) in Mewat district of Haryana.
- 1,6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.e. 2013-14.

1.7 Components of the Project

- Main components of CAMPA are 'as follows:
 - People's Participation
 - Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - Monitoring and Evaluation of the programme
 - Conservation and protection of forests, infrastructure development, wildlife conservation. and protection, etc.
 - Extension and awareness
 - Monitoring of the programme, etc.
- 1.8 Project Implementing Agency and Proposed Activities of the Programme
 - A brief outline of the project agency and programme implementation is given below in table-1.2

Table 1.2: Implementin	g Agency and Proposed Activities of the Programme (2013-14)
Project Implementing Agency	
District	: Mewat
♦ Forest Division	: Me-wat
♦ Forest Circle	: Gurgaon Circle, Gurgaon
♦ State	: Haryana
Project Location	
 Watersheds/Sub-watersheds 	: NA
 Development Blocks 	: NA
♦ Forest Ranges (3)	: 1,Mewat, 2,Firospur Jhirka and 3, Punhana and CAMPA work carried out in all the three ranges
◆ Project Sites	. 8 (Six)
Assets/ Infrastructure Developme N.A.	
	at and Record Upknep te register or Plantation journals for plantation site. However, the project ook, which had the details of plantation and other assets of the programme oject authority, the evaluator discussed the importance and benefits o
Project Duration, Area and Cost	
 Project Duration 	; 2013-14
→ Project Area	: Target: 155 RKM with CA/TP Scheme. Target 100 per cent Achieved)
Project Cost	: Target: Rs.55.82 lakh and Achievement: Rs55.82 lakh
Proposed Strategies and Selient • There was no provision of V	t Features of the Project VFCs under CAMPA programme as like NAP

- Plantation was carried out under NPV and CA schemes

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

Scope of study is confined to Mewat Forest Division (Nuh) in Mewat district of Haryana.

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1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study .

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.
- Sample Selection, Size and its Distribution: A Sample of 83.22% (129 RKM) plantation area was drawn during field visit in the process of evaluation of CAMPA programme conducted during 2013-14 from the total target of 155 RKM.
- To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting the plantation at random locations along with row counting keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise, organization, of, Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 Introduces the <u>Project Concept Strategy Objectives and Methodology</u>.
 - Chapter-2 gives the <u>Profile of the Project Area and its Location</u>
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with <u>Project Constraints and Limitations</u>
 - Chapter-6 provides Suggestions and Recommandations.

1.14 Limitations_of_the_Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation. In-depth discussion with various stakeholders of the programme helped a lot in this regard.

Chapter-2

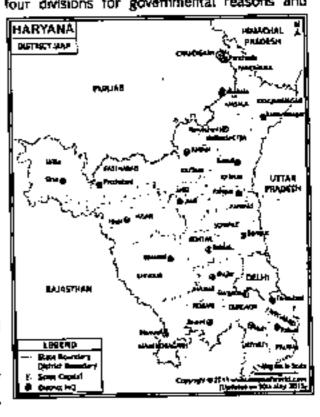
Profile of Project Area

2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala Division has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar.
- Gurgaon Division has six (6) districts namely Gunzaon. Mahendragarh, Palwal. Mewat. Rewari, and Mewat districts in its jurisdiction.
- Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Sirsa. districts
- Robitak Division also has five (5) districts namely Kamal, Jhajjar, Robitak, Panipat, and Sonipat In its jurisdiction.

2.1.1Land Use Pattern of Haryana

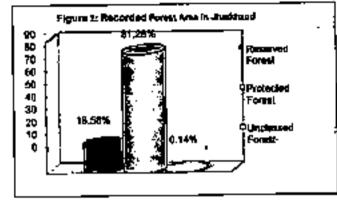
- o Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland while area under tree cover is 3.16% (1395 sq. km). Thus forestland and tree cover together covers 6.80% of the state geographical area.
- Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation (13.11%), Current fallows (2.40%). Permanent pasture and other grazing lands



(0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use findle State of Forest Report 2011, FSI Debra Dunit.

2.1.2Recorded Forest Area in Haryana

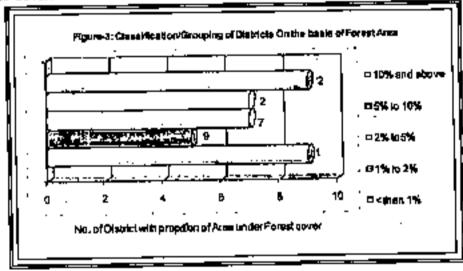
- ♦ The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries.
 This constitutes 0.69% of the states geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor, Refer Figure-2.

2.1.3District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (2)) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover.
 Group-1: Two districts namely Punchkula (8:35%) and Yamunanagar (10:97%) have more than 10% area under forest cover.
- Group-2: Two districts namely Gurgaon (8.35%) and Mewat (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala, Palwal, Faridabad, Mahendragarh Bhiwani, Rewarl and Kaithal, fall in the category of 2% to 5% forest cover.



- Group-4: Nine districts namely Hisar, Jhajar, Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat and they fall in group of 1% to 2% forest cover.
- Group-5: One district namely Fatehabad which has less than 1% area under forest cover.
 Refer Figure-3 for further information.

2.2 Profile of Mewat District and Forest Division

 Mewat district is one of the 21 districts and situated in the southern part of Haryana. It was carved as the 20° district of Haryana from erstwhile Gurgaon district and Hathin Block of Faridabad district on 4° April 2005. However, Hathin sub-division was shifted to Palwal district in 2008. It is bounded by Gurgaon district on the north, Rewart district on the west and Farldabad and Palwal districts on the east. Nuh town is the headquarters of this district. The district comprises Nuh, Taoru, Nagina, Firozpur Jhírka and Punhana blocks along with 431 villages and 297 panchayats.

The district occupies an area of 1859.61sq, km, Mewat Is populated by the Meos community (mostly Muslims) who are agriculturalists, it has a population of 10.89 takh (2011 census) roughly equal to Cyprus or the US state of Rhode Island. This gives it a ranking of 420th in.

India out of a total of 640 districts. The district has a population density of 729 inhabitants per square kilometer, its population growth rate over the decade 2001-2011 was 37.94%. Mewat has a sex ratio of 906 females for every 1000 males and a literacy rate of 56.1%. The average household size in rural Mewat was 7.

• The soll of Mewat is light in texture, particularly sandy, sandy loam and clay loam. The upper hills are mostly barren. The main occupation of the people is agriculture and agro-based activities. The agriculture in Mewat is mostly rain fed except in small pockets where canal irrigation is available. Agriculture production measured in terms of crop yield per hectare is comparatively low to



the other districts of the State. Animal husbandry, particularly dairy is the secondary source of income for people of Mewat and those who live closer to the hilly ranges of Aravali also keep a few sheep and goats. Milk yields are not so low, however, due to heavy indebtedness most of the farmers are forced to sell the milk to the lenders at lower than normal price, which drastically reduces their income. The poultry population in Mewat is much less in comparison to other districts of Haryana State.

♦ Climate and Rainfall: Mewat falls under the Sub-Tropical, Semi-arid climatic zone with extremely hot temperature in summer. Dryness of air is standard feature in Mewat except during the monsoon season. May and June are the hottest months of the year with the temperature ranging from 30° C to 48° C. January, on the other hand is the coldest month with temperature ranging between 2° C to 25° C. Strong dusty winds are conspicuous during summer. The annual rainfall varies considerably from year to year. The maximum rainfall is experienced during the monsoon season, which reaches its peak in the month of July. The principal precipitation occurs during monsoon period from June to September when about 80% of the rainfall is received. The average rainfall varies from 336 mm to 440 mm in the district.

2.3 Forest Cover in Mewat District

 According to India State of Forest Report-2011, Mewat district has 8.5% area under forest cover against 3.64% of state average. Main plant species found adopted under CAMPA programme in the district were Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Ailanthus, Neem, Pipal, Ber, etc.

Chapter-3

Quantitative Evaluation and Findings

3.1 Classification of Area Covered/Treated

A total 155 RKM forestland was treated under CAMPA by adopting Compensatory Afforestation scheme of plantation during 2013-14. The plantation area was spread over all the three forest ranges namely Nuh range (44 RKM), FP Jhirka range (81 RKM) and Punhana range (20 RKM) in the division. Refer table-3.1 for detailed information.

St.	Range	Project/Plantation Ske	Land Category	Scheme of Plantation	Area in RKM	Y ear of Plantation
1	Neght.	Tauro Kota Road (Tauro, Mohammadpur)	PF	CA/Tall Plantation	10	
	Nuh	Rangzia Bundh	PF	CA/Tell Plantation	24	
	Nuh	Nuh Drain	PF	CA/Tail Plantation	20	l
	FP Jhirks	Kerta Bundh	PF	CA/Tall Plantation	37	2013-1
5	FP Jhirks Resgarts Bundh		PF	CA/Tall Plantation	28	
6 FP Jihirka Benaral Distributory		PF	CA/Tall Plantation	16	ì	
Punhana Gurgaon Canal		PF	CA/Tell Plantation	10]	
3	Punhana	Puntrana to Tirwasa Road, Tirwara to Nai Road	PF	CA/Tall Plantation	10	<u> </u>
_		Sub Total	_		155,00	

3.2 Physical and Financial Target and Achievements

Total expenditure incurred in the entire CAMPA programme was Rs 55.82 takh against the target of same amount. Plantation work was carried out at 8 locations/sites covering all the three forest ranges of the division. Refer table 3.2 for detail information.

SL			Physical	(Avea in ha)	Financial (Rs. in takh)		
No. Range	Plantation Site	Target	Achievement:	Target	Achtevement		
1.	Nuh	Tauru Kota Road (Tauru, Mohammadpur)	10	10	3.84984	3.84984	
2	Nuh	Rangela Bundh	24	24	9.23961	9,23961	
3.	Nut	Nub Drain	20	20	7.59958	7,69968	
4	FP Jhirks	Kotla Bundh	37	37	14.24440	14.24440	
	EP Jhrrka	Reegarh Bundh	28	28	10.77954	10.77 95 4	
6	FP Jhlrka	Sanarsi Distributory	16	16	6.15974	5.15974	
-	Ponhana	Gurgaon Canal	10	10	3.84984	3_84984	
8	Punhana	Punham to Tinwara Road/Tirwara to Nai Road	10	10	3,84984	3.84984	
-	Formalia	- Company of the comp	155.00	155.00	55.B2265	55.8226 5	

3.3 Inventory/ List of Plantation

A total of 0.388 lakh plant species of Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Ailanthus, Neem, Pipal, Ber, etc. were planted in the project at eight different sites comprising 155.00 RKM of forestland. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

		Tab	la 33: Investory/List	of Plantal	lion		_
SL No	Range	Project/Plantation Site	Scheme of Plantation	Aree RKM	No. of plants	Name of Plant Species	Year of Plantation
1	Nuh	Tauru-Kota Road (Tauru, Mohammadpur)	CA/Tall Plantation	10	2500		
2	Nuh	Rangala Bundh	CA/Tall Plantation	24	5000	Papri, Bakain, Arjun,	
3	Nigh	Nuh Drein	CA/Tall Plantation	20	5000	Shiston, Kilor, Balam	!
4	FP Jhirka	Kotia Bundh	CA/Tail Plantation	37	9250	Khira, Tura Jamura	
5	FP Jhorks	Reegarh Bundh	CA/Tall Plantation	28	7000	Reurina, Akarethus,	2013-14
6	FP Jhirka	Beneral Distributory	CA/Tall Plantation	15	4000	Neem, Pipel, Ber.	
7	Punhana	Gurgaen Canal	CA/Talk Plantation	10	2500		\
8	Punhana	Punhana to Tirwara Road/Tirwara to Nai Road	CA/Tall Plantation	10	2500	<u> </u>	
\vdash		Total		155.00	38750		<u> </u>

3.4 Analysis of Sample Plantation and Survival Assessment

- A sample of 83.22% (129 RKM) plantation area was drawn for field visit of and to estimate survival percentage of CAMPA plantation.
- Average survival percentage of seedlings estimated was 73%. The survival percentage was 75% at Nuh Drain under and it was 69% at Tauru-Kota Road. Average height of plantation was 5 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.







_		Table 3.4: Analysis of S	_		No. of	Plants	Survival	
iL Io.	Range	Plantation Sita	Scheme	Area (ha)	Plants	Survived	(%)	Yea
<u></u>	Nuh	Tayng-Kota Road (Yeuru, Mohammadpur)	CA/Tall Plantabon	10	2500	1725	69	
2	Nuh	Rangala Bundh	CA/Tell Plantation	24	6000	4380	73	
3	Nuln	Num Drain	CA/Tall Plantation	20	5000	3750	75	
4	FP Jrinks	'Kotta Bundh	CA/Talk Plantation	37	9250	6558	71	l
5	FP Jhirks	Reegarh Bundh	CA/Tall Plantation	28	7000	\$180	74	
<u>,</u>	Punhana	Gurgaon Canal	CA/Tall Plantation	10	2500	1800	72	
_	Lingiana	Total		129	32250	23403	73	

3.5 Registers/Records Maintained in the Project

- Work register and cashbook were important registers maintained by project authority in this project. DFO of the division assured the evaluator that plantation journal would be prepared in all the plantation sites conducted under CAMPA programme when it was discussed with him.
- 3.6 Monitoring and Evaluation System in the Project
 - The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate evaluation wing called M & E Wing. It is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana at

Mewat forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF), its head office is at Kamal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.

- 3.7 Involvement of Independent Agency for Evaluation of CAMPA
 - The project authority reported that an independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.
- 3.8 Bank Account Details and Flow of Funds
 - Bank account of CAMPA Programme of Mewat forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Nuh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

Qualitative Analysis and Findings

4.1 Preference and Basis of Species Selection

 Topography, soil type, climate, rainfall, sultability of species in the area, preference shown by local community, etc. were main factors in the selection of plant species. However, the project authority took decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

Wherever the plantation was conducted under CAMPA programme there was some improvement in soil moisture conservation. However, limited provision of funds on this head of the programme did not provide much option to the project authority to carry out additional work related to it.

4.3 Assessment of Survival Percentage

- The estimated survival percentage of plantation carried out during 2012-13 was 70%. It was highest at FP Jhirka Anaj Mandi under NPV scheme (71%) while it was 69% at Allpur Tigra Reegarh Sec. 4 & 5 Average height of plantation was 6 feet and they had good growth and health.
- To estimate survival percentage a sample plot of 0.25 ha (50meterx50meter) was adopted at random location and also row counting of plantation was also adopted to count the seedling at random location. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

Natural regeneration of plant species in the area was hardly observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone there were some glimpses of it due to presence of other species around plantation area.

4.5 Quality of Work

 Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

• Grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. were important factors that impacted growth and survival of plantation

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4.7 Protection and Maintenance of Plantation

Barbed wire and at few places bush fencing were Important measures at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be better care of plantation through elaborate fencing and regular care. The process of awareness raising and motivation of local community should be adopted in the project at regular intervals.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

4 All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

4 There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

CAMPA programme accrued both direct and Indirect benefits In the project area, Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

• The project authority did not take any effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

Ι.

THE CONSTRAINTS AND LIMITATIONS OF PROJECT

There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

5.1 Unprotect Grazing by Loose Domestic Animals

Open grazing by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area, it led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff

Project authority reported that there was shortage of frontline staff like foresters and forest guards in the division during 2013-14 of CAMPA programme implementation. However, fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and recently this problem was over. But impacted the programme adversely.

5.3 Low Wage Rate of Forest Department as Compared to Private Sector

• Wage rate of forest department (@Rs, 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs, 400-500 per day), it caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work, it impacted quality and outcome of the programme adversely.

5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate

 Due to high rate of urbanization and industrialization in some part of the project area and in NCR region, there was high demand of labour force and hence the forest department had to face shortage of labour as reported.

5.5 Inadequate Infrastructure in the Division and Forest Ranges

At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority. It impacted performance and quality of work as well as outcome of project.

5.6 Other Biotic and Natural Factors Impacting Survival of Plantation

Biotic and natural factors like wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. Impacted growth and survival of plantation.

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CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

- 6.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals
- As discussed above time and again about the menace of grazing in most part of plantation area and hence it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
- The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2012-13 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
- There should be provision of fine/purishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, then to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.
- 6.6 Make Four Years of Protection and Maintenance Funding
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- 6.7 Make Monitoring and Evaluation Regular, Systematic and Effective
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme, it consists of one CF

E

and two DFOs. It head office is located at Karnal, CAMPA programme along with other forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

6.8 Intensive Awareness Campaign to Motivate Local Community

There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukked natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

6.9 Organize Exposure Visit for Staff Member and Local Community

Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality and outcome of the programme.

5.10 Introduce Practice and Concept of Earning Carbon Credits

- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.
- Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthler environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

5.11 Interview_with_Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation team interacted interviewed DFO Mewat (Mr. Harish Walla, Mob. +91-9416317400, Office: +91-1267274701) along with RFOs, Foresters and Forest Guards. A brief summary of interviews is as follows.
- The DFO, Mr. Harish Walla along with other project authority feit satisfaction overall outcome of the programme and progress of the programme conducted during 2012-13. With regard to selection plant species soil type, climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, etc. were main factors as replied by the. Most preferred plant species in the division were Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Ailanthus, Neem, Pipal, Ber. etc. Open grazing due high cattle pressure, rocky terrain, poor soil, erratic and low rain fall were main of factors plantation casualty. The project authority further said that all the field staffs were hard working and they owned responsibility and performed their duty well. There was need to work hard to improve the outcome of the programme.

6.12 Evaluator's Assessment

After field inspection and thorough interaction with DFO and other stakeholders of the programme along with verification of official records, it was concluded that above statements made by the project authority was true to a great extent. The project authority followed the stated guidelines of programme. Modern tools of mass media should be adopted for awareness campaigns for better impact internal monitoring and evaluation in the programme should be updated and carried out effectively.

Photographs of Plantation Area: Mewat (Nuh) Forest Division (2013-14)

- Mith Range, 3 etcs. (84 RKM)
- FP Jhärka Rangat: 3 sales (81 RKN)
- 4 Punkara Ranger 2 ples (20 RKM)
- Main Species: Papri. Bakam, Arjan, Shesham, Kitar, Balam Khen, Tun, Jamun. Reunjita, Alanthus, Neom. Pipul, Bar, etc.



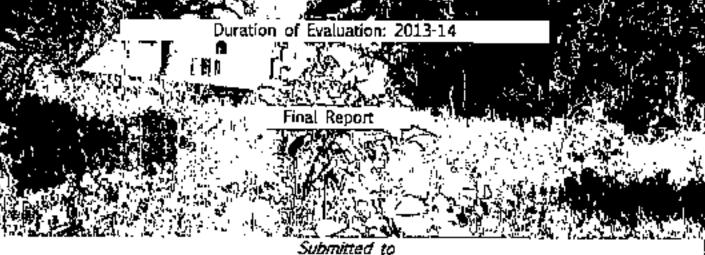
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SL 40	Type of land (Forest/Non-	Name of Schame	Name of Range	Name of Site	Khasra No.	Plantatio n Month		rget ieved	Spacing (m)	Name Of Species	No. of Plants	GPS Cod	ordinates
-	forest)				KM/RD	١. ٠	Ha	RKM]			Longitude	Latitude
1	2	3	4	5	- 6	7	8	· 9	10	11	12	13	14
	Forestland	CA-TP	Nuh	Tauru-Kota Road (Tauru, Mohammadour)	NA	July	NA.	10	4×4	Kikar, Shisham, Bakain, Papri	2500	NA.	NA .
<u>.</u>	Forestland	СА-ТР	Hun	Rangala Bundo	MA	July _	ŊΑ	24	4x4	Kikas, Shisham, Papel-	6000	NA .	NA ·-
j.	Forestiand .	CA-TP	Nun	Mush Drain	NA.	July	NA.	20	4x4	Shisham, Papri	5000	, NA	NA.
	Forestland	CA-TP	FP Jihirita	Kotla Bundh	NA.	July	NA.	37 ·	4x4	Papri, Arjun	9250	NA .	NA
i .	Forestland	CA-TP	FP Jhirka	Resgurh Bundh	NA.	July	NA .	28	4x4	Papri, Neem	7000	NA .	. NA
j,	Forestland	CA-TP	FP Jihirka	Barrersi Distributory	NA.	July	NA.	16	4x4	Pipal, Ber,	4000	NA	NA_
7.	Forestland	CA-TP	Punhana	Gungaron Carrail	NA.	July	NA	10	4,4	Shisham,Papri	2500	NA	NA.
<u>,</u>	Forestland	CA-TP	Punharu	Puntena to Tirwara Road/Tirwara to Nal Road	NA.	July ;	NA.	10	4x4	Shiningers, Kikar	2500	NA .	NA .
_	Total	 	-	·-	 		1	155	1	· -	38750		



Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY PALWAL FOREST DIVISION IN PALWAL DISTRICT OF HARYANA



OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA



Conducted by

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《别思》和《世界》是一些《如此》的《思想》

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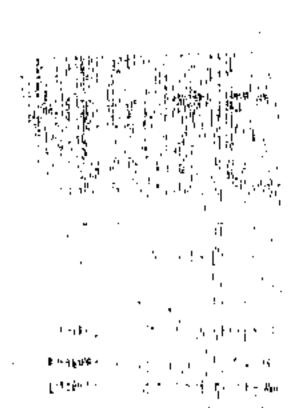


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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY MEWAT FOREST DIVISION (NUH) IN MEWAT DISTRICT OF HARYANA

Duration of Evaluation: 2013-14

Final Report

Submitted to
OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA
VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA

April, 2015

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Palwal Forest Division in Palwal District of Haryana (2013-14)" was successfully completed. However, it would not have been possible without the kind support of many individuals and organizations working and associated with Locus Research & Consultants Pvt. Ltd. I would like to extend my sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF. Haryana, Mr. C.R. Jotriwal and other officials at PCCF office especially DCF. Mr. Garg, Mr. Hembram along with office staff Mr. D.P. Tyagi for reposing faith and awarding the honour of Monitoring & Evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency.

I also express my thanks to DFO, Palwai Forest Division, Mr. Sundar Sambharya along with RFOs and other forest staffs. My interaction with them helped in understanding different aspects of CAMPA implementation and its progress during 2013-14.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly indebted to Mr. BKP Sinha (iFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

New Delhi, April, 2015



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Preface

(Paiwai Porost Division-2013-14)

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates, i.e. a) lay down broad guidelines for State CAMPA, b) facilitate acientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Foresta, Van Bhawan, Sector-6, Fanchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Loops Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana implemented by Palwal Forest Division by PCCF office on professional terms and condition. Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

During 2013-14 a total 20 RKM land was treated under CAMPA by adopting NPV scheme of plantation at Palwai Forest Division. Total expenditure incurred in the above activities was Rs. 6,6 lakh. A total of 0.10 lakh plant species of Kikar Neem, Pipal, Ber, etc. were planted in the project at three different sites.

Average survival percentage of plants estimated was 75%. It was highest (79%) at Sultanpur-RF plantation and 72% at Nuh-Hathini Road. Average height of plantation was 5 feet. Growth and health of plantation was good. Average grading awarded to the programme was 6.6 [on 1 to 10 scale], which was very good.

In the process of evaluation members of evaluation team interacted with field level forest staff and local community. At most places local people were happy with the efforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

April, 2015

Mnest K. Singh

acus Research & Consultants Pet. Ltd.

ACRONYMS

ACF Assistant Conservator of Forests

Afforestation

APCCS Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforesiation Fund Management and Planning Authority

Divisional Wild Life Officer

CEC Chief Conservator of Forests
CEC Central Empowered Committee

CF Conservator of Forests
CN Compartment Number
CPT Continuous Protection Trench
DCF Deputy Conservator of Forests
DFO Divisional Forest Officer
DG-Forests Director General Forest

ENF Establishment of Natural Forest Entry Point Activity

EPA Entry Point Activity

FDA Forest Development Agency

FGD Focus Group Discussion

FTC Forest and Tree Cover

GOI Government of India

GPS Global Positioning System

Ha Hectare

DWLO

JPMC Joint Forest Management Committee

W & E Monitoring & Evaluation
WFP Minor Forest Produce

MOES Ministry of Environment & Forests

NACE National Afforestation & Eco-Development Board

NAP National Afforestation Programme
NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce
OBC Other Backward Cestes

PCCF Principal Chief Conservator of Forests

pp Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Kilometer
RO Range Officer
SC Schedulad Casles
SF Social Forestry

SMC Soil & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Village Forest Committee

Local Name and Botanical Name of Plant Species

SL. No.	Common Name	Botanical Name
1,	Alestonia	Indian Mallow/ Devil Tree
2,	Atjun	Terminalia arjuna
3,	Вег	Ziziphus mauritiana
4.	Jamun	Terminalia arjuna
5.	Kikar	Acacia Arabica
6.	Neem	Azadirecta indica
7.	Papri	Holoptelea integrifolia
8.	Pilkhan	Ficus virens
9.	Pipal	Ficus religiosa
10.	Shisham	Dalbergia sissoo

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2013-14

	Palwai Forest Division, Palwai District, Haryana	<u>-</u>		
	Average Grading on a Scale of 1 to 10			
Itam/Aspect	Project Components	Yalue		
Quantitative Aspects	Physical			
	Financial	8		
Qualitative Aspects	Survival	7		
	Health of Plantation	6		
	Maintenance	6		
	Sustainability	6		
JFM/Social Aspects	Degree of Peoples' Participation			
•	Satisfaction over Perceived Benefits by the Local Population	6		
Overall Grading (Very Got	ad)	6,6		

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of CAMPA programme of Palval Forest Division in Palval district was conducted in the month of April 19-22, 2015 by Locus Research & Consultaints Pvt. Ltd., a Delhi based agency. 20 RKM land was treated by adopting NPV scheme of plantation during 2013-14, 100 percent project area covered during field inspection and to estimate survival percentage.

2.0 CAMPA: AN OVERVIEW

CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court Issued orders that there would be a CAMPA as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities. State CAMPA, Haryana was established on Merch 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

3.0 OBJECTIVES OF THE CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION /AREA OF MONITORING & EVALUATION

The study covered the elentire Palwal Forest Division in Palwal district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2013-14.

6.0 NEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purposive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. 74.65% (32.40 RKM) area was sampled to assess the programme and estimate survival percentage. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, counting of plants in row was adopted.

9.0 PROFILE OF THE STUDY AREA

- Haryana was created on November 1, 1966 with seven districts. Subsequently 14 other districts were included through restructuring the previous ones. Total geographical area of Haryana is 44212 sq km which is 1,35% of the total area of the country. In terms of land use pattern about 3,64% (1395 sq km) area goes to forestland while tree cover in the state is 3,16% (1395 sq km). Thus forest and tree cover together covers 6,80% of the state.
- Palwal is the 21st district of Haryana state in northern India and Palwal dity is headquarters. It is situated at a distance of 60 km from Delhi on the Delhi-Mathura highway (NH-2). As per India State of Forest Report-2011, Palwal district has 4.32% area under forest cover.

10.0 MAIN FINDINGS OF THE STUDY

10,1 QUANTITATIVE ANALYSIS AND FINDINGS

- 20 RKM land was treated under CAMPA by adopting NPV scheme of plantation at three locations/sites. It
 was implemented at Palwai range only. 0.10 lakh plant species of Papal, Shisham, Jamun, Kikar, Ber, etc.
 were planted.
- Total expenditure during 2013-14 was Rs. 6.6 lakh against the target of same amount. Plantation work
 was carried out at 3 places.
- Average survival percentage of seedlings estimated was 75%. It was highest (79%) at Sultanpur-RF and it was 72% at Nuh-Hathini Road. Average height of plantation was 5 feet. Growth and health of plantation was good.
- Two types of registers were maintained namely cashbook and work book. DPO said that plantation journal would be prepared soon for all the plantation sites.
- Monitoring and Evaluation (M & E) of CAMPA along with other forestry programmes are conducted by a separate wing called M & E Wing. The last evaluation of state CAMPA Haryana of Palwal Forest Division

was conducted in October 2014. It consists of one CF and two DCFs. Its head office is at Kamai in Haryana.

- An independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.
- Bank account of CAMPA Programme of Palwal forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Palwal branch. How of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Pactors impacting choice of species were topography, soil type, climate, rainfall, suitability in the area,
 economic value, preference by locals, etc. Project authority called the final shot in this regard.
- Improvement in soil moisture conservation was observed at most plantation sites of CAMPA.
- Limited natural regeneration of plant species in the plantation area was found. In urban and suburban zone it was negligible while on block forestland there were some glimpses of it.
- Quality of Work in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.
- Open and rash grazing by loose domestic animals, wild animals like; rabbits, blue built and porcupine, destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of dimate (very high temperature in summer low in winter), expatic nature of monsoon rain, etc. impacted Growth and Survival of Plantation
- o Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. Barbed wire and bush fencing were found at most plantation sites under protection of plantation. In urban areas brick/iron/wood gabions were also adopted along with barbed.
- Motivation and Technical Competence of Personnel Involved in the Project was found satisfactory. Range Forest Officers (RFO), foresters and forest guards were trained to tackle necessary work. Temporary/daily wages workers, cattle watchers, etc. were lacking these skills to deal with new challenges of the programme.
- Role of Local People in Project Work was far from satisfactory. There was low participation of local community in the programme. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA accrued both direct and Indirect benefits in the project area. Additional geographical area came
 under forest cover. It helped in improving quality of ecology and environment as well as micro-climate of
 the area.
- Formation of SHG in the Project was optional for the project authority to provide additional benefits of community in the project area. There was no attempt at this front from the project authority.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

- Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2013-14 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial establishments and urban areas (@Rs.400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season.

- Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area and in NCR region.
- Inadequate Infrastructure at range level offices impacted performance and quality of work as reported by some officials.
- Blotic and natural factors like wild animals like, rabbits, blue buils and porcupines, terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic moresoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Measures should be taken to check grazing in the area. Stall feeding of domestic animals should be promoted among local community through regular awareness and motivation.
- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gabions of Iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out regularly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, slogan shouting, railies, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at viliage level for environment-related mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.; a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Cantral Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curtae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The Supreme Court order of July 10, 2009 directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - iii. A state-level CAMPA Executive Committee under the charmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chalmnanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- Conservation, protection, regeneration and management of existing forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- iii. Compensatory afforestation;
- ly. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
- v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months, it is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monles from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV), Catchment Area Treatment Plan or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the Forest (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhec Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - Grants or aid received if any;
 - · Any loan taken by the Authority or any borrowings made by it; and
 - . Any other sums received by the Authority by way of benefaction, gift or donations.

c) The montes received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations' (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary, of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection I). Chief Conservator of Forests (Protection II), Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of sultable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry; research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- State CAMPA is intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential. accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty, in short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual. engagement of personnel wherever there is shortage of personnel. This should be done gautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State; CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/orgoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - Gonservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside. protected areas; including the consolidation of the protected areas;

 - 行列 (1.4号) Compensation Afforestation 開始 計算機構 Environmental services, which include:
 - and water, the products of goods such as wood, non-timber forest products, fuel, fodder and water, the products of services such as grazing tourism, wildlife protection and life support: and provision of services such as grazing, tourism, wildlife protection and life support;
 - िरिष्टिक्रीविक्षेत्र services such as climate regulation, disease control, flood moderation, il idefoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - Erivironment Protection and Sustainable Forest Management.

1.5 Geographic Location of Monitoring & Evaluation

- The study area covers the entire Palwal Forest Division in Palwal district of Haryana.
- 1.6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.e. 2013-14.

a talah ping

1.7 Components of the Project

- · Main components of CAMPA are as follows:
 - People's Participation
 - * Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - Monitoring and Evaluation of the programme
 - Conservation and protection of forests, infrastructure development, wildlife conservation, and protection, etc.
 - Extension and awareness
 - Monitoring of the programme, etc.

1.8 Project Implementing Agency and Proposed Activities of the Programme

 A brief outline of the project agency and programme implementation is given below in table-1.2

Table: 1.2: Implementing Agency and Proposed Activities of the Programme

Project	lmp	ementi	ng /	Agency
---------	-----	--------	------	--------

◆ District : Palwal
 ◆ Forest Division : Palwal

Forest Circle : Gurgaon Circle, Gurgaon

♦ State : Haryana

Project Location

Watersheds/Sub-watersheds : NA
 Development Blocks : NA

♦ Forest Ranges (3) : 1.Palwal, 2.Hodal, CAMPA work carried out at Palwal range only

♦ Project Sites : 3 (Three)

Assets/ Infrastructure Development Activities, if any

+ NA

Preparation of Plantation Journal and Record Upkeep

There was not any separate register or Plantation journals for plantation site. However, the project authority maintained cash book, which had the details of plantation and other assets of the programme. During interactions with project authority, the evaluator discussed the importance and benefits of plantation journals.

Project Duration, Area and Cost

♦ Project Durática : 2013-14

- Project Area (78,8 RKM) : Target: 20 RKM ((NPV) and it was achieved cent percent

♦ Project Cost (1) : Target: Rs.6.6 lakh and achievement: Rs. 6.6 lakh.

Proposed Strategies and Saliant Features of the Project

- There was no provision of VFCs under CAMPA programme.
- Plantation was carried out by adopting NPV scheme.

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress; impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

Scope of study is confined to Palwal Forest Division in Palwal district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques. were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.
- Sample Selection, Size and its Distribution: There was 100% (20 RKM) coverage of plantation. area for field visit and evaluation of CAMPA programme during 2013-14. It was carried out at three locations namely Nuh-Hathini Road (5 RKM), Mandkola-Saroli-Kanoli Road (5 RKM) and Sultanpur-RF (10 RKM) under Palwal range of the division.
- To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for ecounting the plantation along with row counting at random locations keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise_Organization_of_Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1-introduces the Project Concept, Strategy Objectives and Methodology.
 - Chapter 2 gives the Profile of the Project Area and its Location.
 - Chapter discusses Quantitative Analysis and Findings of the Study.
 - Chapter lightes Qualitative Analysis and Findings.
 - Chapter-50deals with Project Constraints and Limitations
 - Chapter 6 provides Suggestions and Recommendations.

1.14 Limitations of the Study

 Members of evaluation team faced difficulty in finding respondents at most places during field inspection, it was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary Information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation, in-depth discussion with various stakeholders of the programme helped a lot in this regarded

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Chapter-2

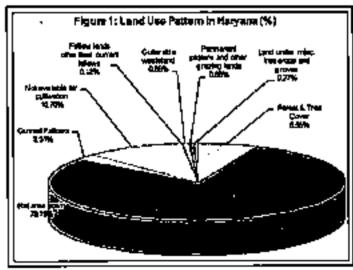
Profile of Project Area

2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state comprises 47% subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala Division has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunariagar.
- Gurgaon Division has six (6) districts namely Patwal Mahendragarh, Gurgaon, Rewari, and Palwal districts in its jurisdiction.
- Hisar Division consists of five (5) districts namely Fatehabad, Bhlwani, Jind, Hisar and Sirsa. districts.
- Robtak Division also has five (5) districts namely Kamal, Jhajjar, Robtak, Panipat, and Sonipat in its jurisdiction.

21.1Land Use-Pattern of Haryana

◆ Total geographical area of Haryana is 44212 sq kmg/which is 1.35% of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland while area under tree cover is 3.16% (1395 sq. km). Thus forestland and tree cover together covers 6.80% of the state geographical area.



 Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation, (13.11%), Current fallows (2.40%), Permanent pasture and other grazing lands



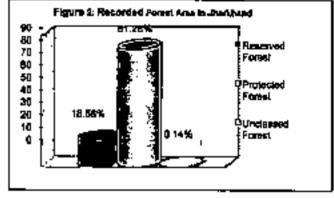
(0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use Undia State of Forest Report 2011, FSI Dehra Duni.

2.1.2Recorded Forest Area in Haryana

The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests.

constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.

 An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. *Refer Figure-2*.

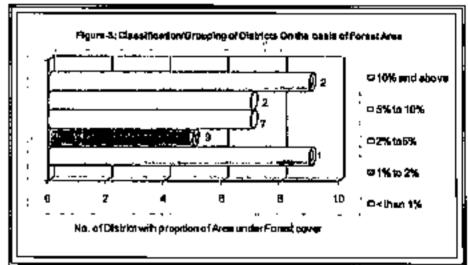
2.1.3 District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire
 districts of the state have been clubbed into five groups based on area under forest cover.
 Group-1: Two districts namely Punchkula (8.35%) and Yamunanagar (10.97%) have more
 than 10% area under forest cover.
- Group-2: Two districts namely Gurgaon (8.35%) and Palwal (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala Palwal, Faridabad, Mahendragarh Bhiwani, Rewari and Kajthal fall in the category of 296 to 5% forest cover.

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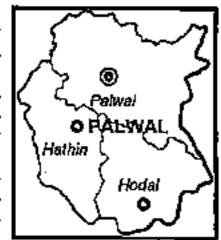
- Sonipabland they fall in group of 1% to 2% forest cover.
- Group 5: One district namely Fatehabad which has less than 1% area under forest cover.
 Refer Figure 3 for further information.

2.2 Profile of Patwal District and Forest Division.

Palwal-is the: 21st district of Haryana in northern India and Palwal city is its headquarters, it is situated at ta distance of 60 km from Delhi and 55 km from Khair City on the Delhi-Mathura, highway. (NH-2). It is a place of great antiquity supposed to figure in the

earliest Aryan traditions under the name of Apelava, part of the Pandava kingdom of Indraprastial which was later restored by Vikramaditya.

Palwal is located at 28.15 N 77.33 E. It has an average elevation of 195 metres (639 ft). Palwal has many temples, Schools. Colleges and banks. It also contains developed areas like Housing board colony, New colony, Main market, shivapun, Krishiria colony, camp colony, Huda sector 2, etc. Government is also putting more emphases toward the economy and development of Palwal as it is situated in mid of developed cities like Delhi, Gurgaon, Noida, Faridabad, Khair, Mathura at and about an equiv-distance, it consist agriculture based areas as well as commercial areas.



- The city Palwal got its name from a demon, "Palwasur" who ruled this place during the reign of Pandavas. He was killed by Balarama, elder brother of Shri Krishna. In his memory, every year a festival is organised in palwal which is known as "Baldev Chhat Ka Mela". There is also a temple dedicated to Balaram near Municipal Office chowk. Railway Station of Palwal, is the place from where Mahatma Gandhi ji were arrested first time. A historical building "Gandhi Ashram" was made in the memory of Mahatma Gandhi Syed Yusuf Ali Palwali was a noble and rich man from Palwal during the short ruling period of Muhammad Azam Shah and died along with Muhammad Azam Shah on 19 June 1707 at the battle of Jajuwan.
- On, 15 August 1979, Gurgaon district was further divided to form a new Faridabad district, and Palwal became a part of it. Finally Palwal became the 21st district of Haryana on 15 August 2008. According to the 2011 census Palwal district has a population of 10.40 lakes the gives it a ranking of 43rd in India (out of a total of 640).[8] The district has a population density of 761 inhabitants per square kilometre (1,970/sq mi). Its population growth rate over the decade 2001-2011 was 25,49%, Palwal has a sex ratio of 879 females for every 1000 males [8] and a literacy rate of 70.3%.
- District comprises 282 Villages, 237 Gram Panchayats, 1 Municipal Council, 2 Municipal Committee, 3 Sub Divisions, 4 Development Blocks and 3 Tehsils. Sub Division is under the control of sub Divisional Magistrate while each Dev. Block is under the control of Block Development and Panchayat Officer.

2.3 Forest Coyer in Palwal District

According to India State of Forest Report-2011, Palwal district has 4.32% area under forest cover-against 3.64% of state average. Main plant species found and adopted under CAMPA programme in the district were Papri, Shisham, Jamun, Pilkhan, Silveroak, Chakresia, Alestonia Kajeba, Lesistonia, Molsri, Neem, Pipal, Ber, Kikar, etc.

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Chapter-3

Quantitative Evaluation and Findings

3.1 Classification of Area Covered/Treated

Altogether 20 RKM Protected forestland was treated under CAMPA by adopting NPV scheme of plantation during 2013-14. The plantation area was spread over Palwal forest range at three locations namely Nuh-Hathini Road (5 RKM), Mandkola- Saroli-Kanoli Road (5 RKM) and Sultanpur-RF (10 RKM). Refer table 3.1 for detailed information.

		Table 3.1 Area Covered/Trea	ted Under CAM	PA (2013-14)		
SL No	Range :	Project/Plantation Ska	Land Category	Schema of Plantation	Area In RKM	Y ear of Plantation
1	Palwal	Pault-Hathine Road, PF-KML0-7 L/ R	Road	NPV/Ridge	5	
2	Palwal	Mandkola- Saroll-Kanoli Road PF-KM,0-6 L/R	Road	NPV/Ridge	5	2013-14
3	Palmal	Suffairpur RF	RF.	NPV/ftldge	10	
		20				

3.2 Physical and Financial Target and Achievements

• Total expenditure incurred in the entire CAMPA programme during 2013-14 was Rs 6.6 lakh against the target of same amount. Plantation work was carried out at three locations/sites under Palwal forest range, Refer table 3.2 for detail information.

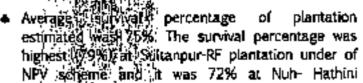
	Table 3.2: Physical and Financial Target/Achievements (2013-14)							
SL			Physical (Area in ha)	Financial	(Rau In Ladeh)		
No.	Range	Plantation Site	Target	Achievement	Achievement			
1.	Palwal	Nuh Hathin Road, KM. 0-7 L&R	5	5	1.53	1.63		
2.	Palwal	Mandkola-Syaroly-Kanoli Road, KM 0-6, LSR	5	5	1.64	1.64		
3.	Palwai -	Sultagius RF	10	10	333	3.33		
	٠	Total	- 20	20	·· 6.6	6.6		

3.3 Inventory/ List of Plantation

A total of 0.10 takh plant species of *Kikar Neem, Pipat, Ber,* etc. were planted in the project at three different sites comprising 20.00 RKM land. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

	Table 3.3: Inventory/List of Plantation						
SL No	Range Project/Plantation Sits	Scheme of Planuation	Artea RKM	No. of plants	Name of Plant Species	Year of Plantation	
1	Patwal Nuffeliation Road, KM, 0-7 L&R	NPV	5	2500	Killer, Nivers, Pipel, Bas,	<u> </u>	
2	Palvel Pantikla Sykroly Kanoli Road,	NPV	5	2500	Kitar, Alaem, Pipel, Berr	2013-14	
3	Patent 1 to I Sintiffine RF	NPY	10	5000	Blue, Henry, Phys. Sec.	_	
	Land Total		- 20	10000			

- 3.4 Analysis of Sample Plantation and Survival Assessment
 - To evaluate CAMPA programme and to estimate survival percentage there was 100% (20 RKM) coverage of plantation area.









Road. Average height of plantation was 5 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.

	Table 3.4: Analysis of Sample Plantation sites and Assessment of Survival							
ŞI. No.	Rainge	Plantation Site	Scheme	Area (ha)	No. of Plants	Plants Survived	Survival (%)	Year
1	Palwal -	Nun-Hathin Road, KM, 0-7 CBR	NPV	5	2500	1850	72	
2	Palwel	Mandkola-Syaroly-Kanoli Road, KML 0-6, L&R	NPY	5	2500	1775	73	2013-14
3	Paterel	Sultapur RF	NPV	10	5000	3950	79	
		- i Total		. 20	10000	7575	.75	

- 3.5 Registers/Records Maintained in the Project
 - Mainly tashbook and work registers were maintained in the project. The project authority
 was of the view that plantation journal would be prepared soon in all the plantation sites,
 which was found missing.
- 3.6 Monitoring and Evaluation System in the Project
 - Monitoring and Evaluation (M & E) system of CAMPA along with other forestry programmes are conducted by a separate evaluation wing called M & E Wing. The last evaluation of state CAMPA, Haryana at Palwal forest division was conducted in October 2014. The M & E wing consists, of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DGD). Its head office is at Kamal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.
- 3.7 Involvement Stillheependent Agency for Evaluation of CAMPA
 - The project delignity reported that an independent agency called Agricultural Finance Corporation of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013) for stille duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.
- 3.8 Bank Account Details and Flow of Funds
 - Bank account of CAMPA Programme of Palwal forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Palwal branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

Chapter-4

Qualitative Analysis and Findings

4.1 Preference and Basis of Species Selection

• Main factors in the selection of plant species were nature of topography, soil type, climate, rainfall suitability of species in the area, economic value of plant species, preference shown by local community, etc. However, the project authority took final decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

 Significant improvement in soil moisture conservation was found where plantation carried out under CAMPA programme. However, it was reported that due to limited provision of funds on this head of the programme did not provide much options for the project authority to carry forward additional work.

4.3 Assessment of Survival Percentage

Average survival percentage of plantation estimated was 75%. The survival percentage was highest (79%) at Sultanpur-RF plantation under of NPV scheme and it was 72% at Nuh-Hathini Road. Average height of plantation was 5 feet. Growth and health of plantation was good, 0.25 ha (50meterx50meter) sample plot was adopted at random location along row counting of plantation to estimate survival percentage. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

There was little natural regeneration of plant species in the plantation area as observed during field inspection. In most part of urban and suburban zone natural regeneration was negligible while on block forestland in rural areas there were some glimpses of it due to presence of other species in and around the new plantation.

4.5 Quality of Work Observed During Field Visit

Overall results of work especially plantation and creation of assets in the programme was
found; in good shape at majority locations as observed during field inspection. Members of
evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Grazing by cloose domestic animals, wild animals like rabbits, blue bull and porcupine, destruction by human beings, unfavorable terrain, poor soil, extreme nature of climate (very high temperature) in summer low in winter), erratic nature of monsoon rain, etc impacted growth and survival of plantation.

4.7 Protection and Maintenance of Plantation and Project Assets

 There was barbed wire and bush fencing at most plantation sites for protection of plantation in biploan and sub-urban areas brick/ iron/wood gabions were also adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be provision of better care of plantation through elaborate fencing and protection as observed. The process of awareness raising and motivation of local community should be a regular phenomenon in the project.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

• All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

V 10 50

CAMPA programme accrued both direct and indirect banefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauha. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Solf Help Group (SHG) in the Project

* The project anithority did not much effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets:

মার্কি কেন্টোল লিকিস্টো আ নিকিক কিন্টোলী কিন্তু জিন্টোলী কিন্তু

Chapter-5

. The Constraints and Limitations of Project

There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

- 5.1 Unprotect Grazing by Loose Domestic Animals
 - Open grazing, by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrinental effect on all saplings planted in the area, it led to stunted growth of plants, which survived even after facing these challenges.
- 5.2 Shortage of Frontline Forest Staff
 - During 2012-13 of CAMPA programme implementation there was shortage of frontline staff like foresters and forest guards in the division. It impacted the programme adversely. However, fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and currently there was not any shortage.
- 5.3 Low Wage Rate of Forest Department as Compared to Private Sector
 - Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.
- 5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate
 - Due to high rate of urbanization and industrialization in some part of the project area and in NCR region, there was high demand of labour force and hence the forest department had to face shortage of labour as reported.
- 5.5 Inadequate Infrastructure in the Division and Forest Ranges
 - At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority, it impacted performance and quality of work as well as outdome of project.
- 5.6 Other Biotic and Natural Factors Impacting Survival of Plantation
 - * Biolic and partiful factors like wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

This programs.

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Chapter-6

Suggestions and Recommendations

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

- 6.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals
 - As discussed above time and again about the menace of grazing in most part of plantation. area and hence it was needed to adopt some viable measures to check or at least minimute problem: Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
 - The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gablons of fron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
 - + All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2013-14 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
 - * There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level. forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related
- - ♣ There shoulding provision of funding for 4 (four) consecutive of protection and maintenance of the plantation.
- 6.7 Makeskinniforing and Evaluation Regular, Systematic and Effective
 - + Monitoring and avaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF

and two INCOST head office is located at Karnal CAMPA programme along with other forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

6.8 Intensive Awareness Campaign to Motivate Local Community

 There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

6.9 Organize Exposure Visit for Staff Member and Local Community

Project authority should organize exposure visits of forest staffs to advance nursery and plantation; areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality; and, outcome of the programme.

6.10 Introduce Practice and Concept of Earning Carbon Credits

The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area, at village level for environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.11 Interview With Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation piteam interacted interviewed DFO Palwal. (Mr. Sunder Sambharya, Mobi+919416776910. Office: +911275248978) along with RFOs, Foresters and Forest Guards. A pitet singulary of interviews is as follows.
- Dunne the contraction project authority showed satisfaction on overall outcome of the programme conducted during 2013-14. However, they had to face a number of challenges in protection and maintenance of plantation due to high blotic pressure coupled adverse climate and soil condition. Most of the households keep animals and they leave for grazing intopercareas! Most part of the division had poor soil locally called kalar/alkaline. Important plant species adopted in the CAMPA were Papri, Shisham, Jamun, Kikar, Ber, etc.

6.12 Evaluator's Assessment

After field inspection and interaction with DFO and other stakeholders of the programme and verification of official records, it was concluded that above statements made by the project authority was true to a great extent. The project authority followed the stated guidelines of programme to a great extent Modern tools of mass media should be adopted for awareness campaigns. Internal monitoring and evaluation of the programme should be streamlified and carried out effectively on regular basis.

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Final AP.O. State CAMPA Scheme of Palwal Forest Division in Palwal District of Haryana (2013-14)

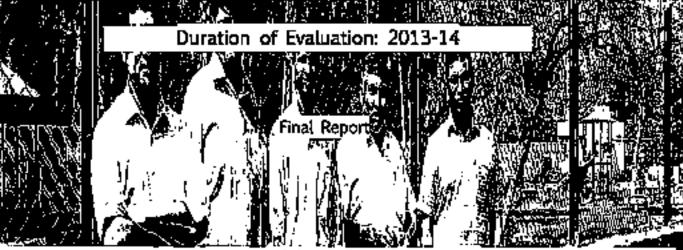
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6	(Forest/Non- forest)	Scheme/ component	Rango	·			На	RXM	<u> </u>			Lengthuse	Lettude
1	2	3	4	5	6	7	8	9	J D	11	12	13	14
1	Forestland	MPV	Palwel	Nun-Hathin Road, KML 0-7 L&R	NA.	July	W.	5	444	Kitar, Naam, Apal, Bar,	2500	NA .	, NA
2.	Foresitand	NPV	Pakral	Mandkola Syaroly Kanoti Road, KM, 0-6, L&R	NA.	July	NA.	5	dzel	Kitas House, Pipal, Bor,	2500	NA I	NA.
3	Forestland	NPV	Palesal	Suttemper 195	NA.	July	NA.	10	444	Kikar, Harry, Pipal. Bar.	5000	NA.	NA.
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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi



Monitoring and Evaluation of State CAMPA Haryana being Implemented by CFP Forest Divisions Jatusana (Rewari), Bhiwani, Hisar and DWLO Forest Division Hisar of Haryana



Submitted_ta

Office of Principal Chief Conservator of Forests, Forest Conservation Van Bhawan, C-18, Sector-6, Panchkula, Haryana



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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
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Monitoring and Evaluation of State CAMPA Haryana being implemented by CaP Forest Divisions Jatusana (Rewari), Bhiwani, Hisar and DWLO.

Forest Division Hisar in Haryana

Duration of Evaluation: 2013-14

Final Report

Submitted to

Office of Principal Chief Conservator of Forests Harvana Van Bhawan, C-18, Sector-6, Panchkula, Harvana

August, 2015

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by CFP Forest Divisions Jatusana (Rewari), Bhiwani, Hisar and DWLO Forest Division Hisar of Haryana (2013-14)" was successfully completed. However, it would not have been possible without kind support of many individuals and organizations working and associated with Locus Research & Consultants Pvt. Ltd. I would like to extend my sincere thanks to all of them.

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I also express my thanks to DFOs of CFP Jatusana (Rewari), Bhiwani, Hisar and DWLO Hisar along with RFOs and other forest staffs for extending necessary help and cooperation during field inspection, which were carried out in the last week of August (24-28), 2015. My interaction with them helped the members of evaluation team in understanding different aspects of CAMPA programme and its implementation during 2013-14.

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Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

New Delhi, August, 2015

Preface



Locus Research & Consultants Pvt, Ltd. 212, Vasant Apartments, Vasant Viher New Delhi-110057 .

Preface

(CFP Forest Division Jatusana, Bhiwani, Hisar and DWLO Hisar: 2013-14).

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestand diverted to non-forest uses National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates, i.e. a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds, it was registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula, Haryana. The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act. 1960 and presently lying with the Adhoc CAMPA.
- Locus Research & Consultants Pvt. Ltd., (Delhi) was assigned the task of Monitoring & Evaluation of State CAMPA Heryana (2012-13) at CFP Jatuazna, Bhiwani, Hisar and DWLO Hisar by PCCF Office, Panchkula. Locus is registered under Companies Act of 1956. Since its Inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience. This study was conducted during August 23-28, 2015.
- CFP Jatusans (Rewart) covered 150 ha/RKM (100 ha and 50 RKM) land at 11 sites with total cost of Rs 32.25 lakh during 2013-14. .33 lakh plant species of Clonal Eucalyptus, Gular, Imil. Neem, Papri, Pilkhan, Sahtoot, Shisham, Siris, B. Dek, etc. were planted. Estimated survival of plantation was 81%.
- CFP Bhiward covered 25 ha land with a total cost of Rs 3.25 lakh at one site. 0.051 lakh plant species of Clonal Eucalyptus was planted at eight different places. Estimated survival of plantation was 65%.
- CFP Hiser treated 175 ha/RKM (125 he and 50 RKM) land with a cost of Rs 29.19 lakh. 0,375 lakh plant species of Clonal Eucalyptus, Shisham, Bakain, Neam, B. Dek, etc. were planted at 14 places. Estimated survival of plantation was 87%.
- DWLO Hisar created three assets under CAMPA during 2013-14 namely plantation (414.4 hg), concrete wall
 with iron chain link (504 RKM) and purchase of one vehicle with a total cost of 30.75 lakh. 0.080 lakh plant
 species of Neem, Jamun, Pilkhan, Vad, Pipat, Bahada, Sahtoot, Gular, etc. were planted under iron gabion at
 Bir Bara Ban RF in Jind. Average survival percentage of plantation estimated at DWLO Hisar was 55%.
- Average grading awarded to the programme was 7.00 (on 1 to 10 scale), which was very good.
- Evaluator Interacted with project authority, other stakeholders and local community during field inspection. Local people were happy with the efforts made by forest department. Plantation journal was missing but other records were found in good condition. Selection of species was made in accordance with local factors and choice of the community. Flow of funds was smooth. There was lack of awareness among local people. Overall outcome of the programme was satisfectory as observed during field inspection.
- Some important suggestions and recommendations have been made in this report and i hope that they would
 receive due consideration in future endeavours of the project implementation.

New Delhi

August, 2015



Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

ACRONYMS

ACF Assistant Conservator of Forests

Affo. Afforestation

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APCCF Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee

CF Conservator of Forests

CFP Community Forestry Programme

CN Compartment Number

CPT Continuous Protection Trench
DCF Deputy Conservator of Forests
DFO Divisional Forest Officer
DG-Forests Director General Forest

DWLO Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Entry Point Activity

FDA Forest Development Agency
FGD Focus Group Discussion
FTC Forest and Tree, Cover
GOI Government of India
GPS Global Positioning System

ha hectare

JFMC Joint Forest Management Committee

LTG . Linear Tree Grove

M&E Monitoring & Evaluation

MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme
NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

PF Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Kilometer
RO Range Officer
SC Scheduled Castes
SF Social Forestry

SMC Soll & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Village Forest Committee

Local and Botanical Name of Plant Species

SL No.	Common Name	Botanical Name
1.	Arjun	Terminalia arjuna
2.	Baheda	Teminalia pinnata
3.	Burma Dek/Teak	Tectona grandis
4.	Bakain	Melia azedarach
5.	Eucalyptus clone	Eucalyptus spp.
6.	Frans	Hemerocallis hybrids
7.	Gular	Ficus racemosa
8.	Imli	Tamarindus indica
9.	Jamun	Zizyphus maritiana
10.	Jand	Prosopis spicigera/cineraria
11.	Neem	Azadirecta indica
12.	Papri	Holoptelea integrifolia
13.	Pipal	Ficus religiosa
14.	Pilkhan	Ficus vírens
15.	Sahtoot	Morus nigra/alba
16.	Shisham	Dalbergia sissoo
17.	Siras	Albizia lebbeck
18.	Vad	Ficus bengalensis

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2013-14
______ CFP Jatusana (Rewart), Bhiwani, Hisar and DWLO Hisar in Haryana

ltem/Aspect	Project Components	Value
Quantilative Aspects	Physical	9
	Financial	9
Qualitative Aspects	Survival	7
	Health of Plantation	6
	Maintenance	7
_	Sustainability	Б
FM/Social Aspects	Degree of Peoples' Participation	Б
	Satisfaction over Perceived Benefits by the Local Population	6.
Overall Grading (Very Goo	(d)	7.00

f & Geoglade Statements

1.0 Introduction

Monitoring and evaluation of CAMPA programme at CFP Jatusana (Rewari), CFP Bhiwani and CFP Hisar Forest Divisions was conducted in the month of August 23-28, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based agency. Division wise coverage of area under CAMPA during 2013-14 was 150 ha/RKM at CFP Jatusana/Rewarl, 25 ha at CFP Bhiwani, 175 ha/RKM at CFP Hisar and 414.5 ha DWLO Hisar. Sample was drawn to evaluate the programme and estimate survival percentage of plantation.

2.0 CAMPA: An Overview

• CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court issued orders that there would be a CAMPA as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities. State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

3.0 Objectives Of The CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - ilf. Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - Research, training and capacity building.

4.0 Geographic Location / Area of Monitoring & Evaluation

 It covers CFP forest divisions Jatusana (Rewart), Bhiwani, Hisar and DWLO Hisar. Plantation area was spread in the districts of Rewart, Mahendragarh, Jahajjar, Bhiwani, Hisar, Jind, Fatehabad, Sirsa etc.

5.0 Reference Period

The reference period of monitoring & evaluation of CAMPA at Hisar is one year, i.e. 2013-14.

6.0 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 Objectives of the Study

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 Methodology and sample Selection

- A mix of Simple random, systematic, stratified and purposive sampling techniques was adopted for field inspection of the programme and to interview forest project authority and other stakeholders.
- ♦ A sample of 136.4 ha/RKM (90.93%) was drawn from CFP latusane, 100% from CFP Bhwani, 139.5 ha/RKM (79.71%) from CFP Hisar and 100% DWLO Hisar (414.5 ha) to assess the project asset and to estimate survival percentage of plantation during 2013-14.
- 0.25 ha/RKM (50mx50m) sample plots were adopted on block forest area to count saplings at random location to estimate survival percentage. Fur linear plantation, counting of plants in row was adopted.

9.0 Profile of the Study Area

- Haryana was created on November 1, 1966 with seven districts. Subsequently 14 other districts were included through restructuring the previous ones. Total geographical area of Haryana is 44212 sq km which is 1.35% of total area of the country. In terms of land use pattern about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% area of the state.
- Rewart district is located in southern part of Haryana. It is 80 km away from New Delhi. It was
 accorded the status of a district by the government of Haryana on November 1, 1989. Rewarf, which
 forms a part of the NCR, is adjacent to Rajasthan and, therefore, has dust storms in summer. Rugged
 hilly terrain of Aravall ranges and sand dunes affect the dity's climate.
- Bhiwani was created on 22rd December 1972. It is named after its headquarters, Bhiwani dty. Bhiwani dty, it is believed, was founded by a Rajput named Neem after his wife Bhani. The name Bhani later changed to Bhiyani and subsequently to Bhiwani. Bhiwani is around 124 kms from Delhi.
- Hisar was the largest district in Haryana until its reorganization in 1966 as some parts of it was transferred to the newly created Jind district. Bhiwani and Loharu tehsils were transferred to Bhiwani district in 1974. Hisar was further bifurcated when Sirsa district was formed. Fatehabad district was later created as well. It is situated at a distance of 164 kilometers northwest of Delhi on NH 10. Hisar city is one of the important and fast growing urban centers of Haryana.

10.0 Main Findings of the study

10.1 Quantitative Analysis and Findings

 CFP Jatusana (Rewarl): covered 150 ha/RKM (100 ha and 50 RKM) land under CAMPA by adopting Linear Tree Grove (LTG-50 RKM) and Bio-drainage (100 ha) schemes of plantation during 2013-14. The project area was spread in Jhajjar (100 ha) and Mahendragarh (50 RKM) districts. Rs 32.25 lakh against the target of same amount. A total of 0.33 lakh plant species of *Clonal Eucalyphus, Gular, Imil, Neem, Papri, Pilkhan, Sahtoot, Shisham, Siris, B. Dek,* etc. were planted in the project at 11 places/sites on 150 ha/RKM land. Average survival percentage of plantation estimated was 81%.

- CFP Shiwani: A total of 25 ha land treated by CFP Shiwani at one site with a total cost of Rs. 3.25 lakh.
 0.051 lakh plant species of Cional Eucalyptus was planted. Average survival percentage of plantation estimated was 85%.
- CFP Hisar: CFP Hisar Forest Division treated 175 ha/RKM land (125 ha and 50 RKM) by adopting LTG (50 RKM) and Bio-drainage (125 ha) schemes of plantation at 14 places with a total cost of Rs. 29.19 lakh. 0.375 lakh plant species of *Clonal Eucalyptus*, *Shisham, Bakain, Neem, B. Dek, etc.* were planted in the project. Average survival percentage of plantation estimated was 87%.
- CFP Hisar: DWLO Hisar created three assets under CAMPA during 2013-14 namely plantation (414.4 ha), concrete wall with Iron chain link (504 RKM) and purchase of one vehicle with total cost of Rs. 31.75 lakh. 0.060 lakh plant species of Neam, Jamun, Pilkhan, Vad, Pipel, Baheda, Sahtoot, Gular, etc. were planted. Average survival percentage of plantation estimated at DWLO Hisar was 55%.
- In all the four forest divisions (CFP Jatusana, CFP Shiwani, CFP Hisar and DWLO Hisar) project authority
 maintained mainly work register and cashbook under CAMPA programme. Plantation journal would be
 prepared of respective sites as stated by the project authorities.
- Monitoring and Evaluation is conducted by a separate wing of forest department called M & E Wing. It is conducted once or twice a year as reported by the project authorities. The last evaluation of state CAMPA Haryana of CFP Jatusana, Bhiwani and Hisar forest divisions was conducted in September-October 2014. M & E wing consists of one CF and two DCF. Its head office is at Kamai. M & E wing carries out monitoring & evaluation of entire forestry programmes including CAMPA coming under state and central jurisdiction.
- Agricultural Finance Corporation Ltd. (AFC Limited), a Delhi based agency carried out monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12 prior to current monitoring & evaluation being carried out by Locus Research & Consultants Pvt. Ltd. Overall findings of the study by AFC Limited were satisfactory as reported.
- Bank accounts of the respective forest divisions (CFP Jatusana, CFP Bhlwani, CFP Hisar and DWLO Hisar)
 were operating with Corporation Bank at district headquarters branches. The signing authorities were Divisional Forest Officers. Flow of funds was smooth as reported by various stakeholders of the programme.

10.2 Qualitative Analysis and Findings

- Main factors impacting selection and choice of species were topography, soil type, climate, rainfall, suitability in the area, economic value, preference by locals, etc.
- Improvement in soil moisture conservation was observed at most plantation sites of CAMPA.
- Limited natural regeneration of plant species in the plantation area was found. In urban and suburban zone it was negligible while on block forestand there were some glimpses of it.
- Quality of Work in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.
- Open and rash grazing by loose domestic animals, wild animals like, rabbits, blue but and porcupine, destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of dimate (very high temperature in summer low in winter), enatic nature of monsoon rain, etc. impacted Growth and Survival of Plantation
- Foresters and forest guards were responsible for making regular rounds of plantation area in the process
 of protection and maintenance. Barbed wire and bush fencing were found at most plantation sites under
 protection of plantation. In orban areas brick/iron/wood gabions were also adopted along with barbed.

- Motivation and Technical Competence of Personnel Involved in the Project was found satisfactory. Range Forest Officers (RFO), foresters and forest guards were trained to tackle necessary work. Temporary/daily wages workers, cattle watchers, etc. were lacking these skills to deal with new challenges of the programme.
- Role of Local People in Project Work was far from satisfactory. There was low participation of local community in the programme. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA accrued both direct and indirect benefits in the project area. Additional geographical area came
 under forest cover. It helped in improving quality of ecology and environment as well as micro-climate of
 the area.
- Formation of SHG in the Project was optional for the project authority to provide additional benefits of community in the project area. There was no attempt at this front from the project authority.

11.0 Constraints and Limitations of the Project

- Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2013-14 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial establishments and urban areas (@Rs.400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season.
- Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area.
- Inadequate Infrastructure at range level offices impacted performance and quality of work as reported by some officials.
- Blobic and natural factors like wild animals like, rabbits, blue bulls and porcupines, terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. Impacted growth and survival of plantation.

12.0 Suggestions and Recommendations

- Measures should be taken to check grazing in the area. Stall feeding of domestic animals should be promoted among local community through regular awareness and motivation.
- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gablons of iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fericing in forest region and rural areas.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to
 ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out requiarly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, slogan shouting, railies, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas.
 within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve Issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the byelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - lji, A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal
 amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- I. Conservation, protection, regeneration and management of existing forests;
- il. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- ili. Compensatory afforestation:
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
- v. Research, training and capacity building.
- ◆ The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10° 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months, it is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government white according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - Grants or ald received if any;
 - Any loan taken by the Authority or any borrowings made by it; and
 - · Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in Interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-I), Chief Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State CAMPA is Intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works." Important mechanisms of CAMPA are as follows:
- The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
- The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize
 the monies collected for undertaking compensatory afforestation, assisted natural
 regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife, its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement
 of personnel wherever there is shortage of personnel. This should be done cautiously to
 avoid recurring revenue expenditure on the State Government, it may also take up Statespecific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.
- Department of Forests, Government of Haryana, awarded the honorable task of Monitoring & Evaluation of CAMAP programme to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency in January 2015. Altogether 11 districts and forest divisions coming under their jurisdiction of Haryana were assigned to our agency.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory Afforestation
 - Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of solls, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - Environment Protection and Sustainable Forest Management.

1.5 Geographic Location of the Study

The study area covers four forest divisions i.e. CFP Jatusana (Rewarl), Bhiwani, Hisar and DWLO Hisar in Haryana. However, CAMPA work of these forest divisions was spread among several districts of the state namely Rewarl, Mahendragarh, Jhajjar, Bhiwani, Hisar, Jind, Fatehabad, Sirsa, etc. A detail of geographical location of project area is given below in tabular form of all the 4 forest divisions as mentioned above.

Table 1.1: Division Wise geographical location of CAMPA project work (2013-14)

SL No	Forest Division	District Name of Project Location
1.	CFP Jatusana (Rewan)	Jhajjar and Mahendragarh
2.	CFP Bhiwani	Jind
3.	CFP Hisar	Hisar, Fatehabad and Sirsa
4,	DWLO Hisar	Histar and Jind

1.5 Reference Period of the Study

Reference period of CAMPA Monitoring & Evaluation was one year, i.e. 2013-14.

1.7 Components of the Project

- Main components of CAMPA are as follows:
 - People's Participation
 - Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV).
 - Monitoring and Evaluation of the programme
 - Conservation and protection of forests, infrastructure development, wildlife conservation and protection, etc.
 - Extension and awareness.

1.8 Project Implementing Agency and Proposed Activities of the Programme

♣ A brief outline of project agency and programme implementation is given below in table-1.2a, 1.2b, 1.2c and 1.2d for CFP Jatusana, Bhiwani, Hisar and DWLO Hisar.

Table 12 at Implementing Agency and Proposed Activities of Programme (CFP Jatusana)

	Agency and proposed Activities of Programme (CPF Datosalia)			
Project Implementing Agency	·- · · · · · · · · · · · · · · · · · ·			
 Forest Division 	: Jatusana			
◆ District	: Rewari			
 Forest Circle 	; Hisar			
♦ State	: Haryana			
Project Location				
◆ Watersheds/Sub-watersheds	; NĀ			
◆ Development Blocks	: NA			
♦ Forest Ranges	; 1, Jahusana, 2, Kanina			
◆ Project Sites/Locations	: 11 (Eleven)			
 Project Area 	: Project area of CFP Jatusana Forest Division was spread in two			
districts namely Mahendragarh				
Assets/ Infrastructure Developmen				
& NA				
Preparation of Plantation Journal	and Record Upkeep			
No.				
Project Duration, Area and Cost				
 Project Duration 	: 2013-14			
◆ Project Area	: Target: 150ha/RKM, Achievement: 150ha/RKM			
4 Project Cost : Target: Rs.32,25 Lakh, Achievement: Rs.32.25 lakh				
Proposed Strategies and Sallent F				
 There is no provision of VFC 				
 Plantation was carried out under NPV and CA schemes/components 				
	···			

Table 1.2b: Implementing Agency and Proposed Activities of Programme (CFP Bhiwani)

Project Implementing Agency						
→Forest Division	; CFP Bhiwani					
District	: Bhiwani					
◆Forest Circle	: Hisar					
♦ State	: Haryana					
Project Location						
♦ Watersheds/Sub-watersheds	: NA					
◆Development Blocks	: NA					
♦Forest Ranges and district	: 1. Bhiwani, 2. Loharu, 3. Jind, 4. Siwani					
◆Project Sites/Locations	: 1 (One)					
 Project Area 	: The project area was spread only in Jind district during 2013-14.					
Assets/ Infrastructure Developm	ent Activities s, if any					
♦ NA						
Preparation of Plantation Journ	al and Record Upksep					
♦ No						
Project Duration, Area and Cost						
◆Project Duration	: 2013-14					
◆Project Area (78.6 RKM)	: Target: 25 ha, Achlevement: 25 ha					
♦Project Cost	: Target: Rs.3.25 takh, Achievement: Rs.3.25 takh					
Proposed Strategies and Salten	t Features of the Project					
	♦There is no provision of VFC in CAMPA					
II '	 Plantation was carried out under NPV and CA schemes/components 					

Table 1.2c: Implementing Agency and Proposed Activities of Programme (CFP Hisar)

	ming Agraed and Leopased Acouses of Leopasian for Lineary				
Project Implementing Agency					
◆ Forest Division	: Hisar				
◆ District	: Hisar				
♦ Forest Circle	: Hisar				
♦ State	: Haryana				
Project Location					
 Watersheds/Sub-watersheds 	: NA				
 Development Blocks 	: NA				
◆ Forest Ranges	: 1. Hisar, 2. Fatehabad, 3. Sirsa				
♦ Project Sites/Locations	: I4 (fourteen)				
 Spread of Project Area 	: The project area of CFP Hisar Forest Division was spread in the districts				
	of Hisar, Fatehabad and Sksa.				
Assets/ infrastructure Developme	ant Activities s, if any				
→ NA	<u> </u>				
Preparation of Plantation Journa	l and Record Upkeep				
 There was no plantation jour 	mai but records upkeep was satisfactory				
Project Duration, Area and Cost					
◆ Project Duration	: 2013-14				
4 Project Area (78.6 RKM)	: Target: 175 ha/RKM, Achievement: 175 ha/RKM				
♦ Project Cost	: Target: Rs. 29.19 lakh, Achievement: Rs. 29.19 lakh				
Proposed Strategies and Salien	Proposed Strategies and Salient Features of the Project				
♦ There is no provision of VFC in CAMPA					
→ Plantation was carried out under NPV and CA schemes/components					

Table 1.2d: Implementing Agency and Proposed Activities of Programma (DWLO Hisar)

Project Implementing Agency ♦ Forest Division : DWLO Hisar ♦ District : Hisar Forest Circle : Hisar ◆ State : Haryana Project Location Watersheds/Sub-watersheds : NA Development Blocks : NA ◆Forest Ranges : 1.Hisar and 2. Jind ♦ Project Sites/Locations : 3 (Three) : It was spread in Hisar and Jind districts of Haryana Spread of Project Area Assets/ infrastructure Development Activities, if any Creation of fencing and purchase of vehicle for rescuing Animals. Mantation Journal and Record Upkeep NA Project Duration, Area and Cost ; 2013-14 Project Duration : Target: 414.4 ha, Achievement: 414.4 ha. Besides, two other assets were ◆Project Area created i.e. concrete wall fencing with Iron chain link (504 RKM) and purchase of one vehicle in the division. : Target: Rs. 30.75 lakh, Achlevement: Rs.30.75 lakh ◆ Project Cost Proposed Strategies and Salient Features of the Project There is no provision of VFC formation in CAMPA. 4 Plantation was carried out under NPV and CA schemes/components

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

 Scope of study is confined to CFP Forest Divisions Jatusana (Rewarl), Bhiwani, Hisar and DWLO Hisar in Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - · To assess physical and financial targets and achievements
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

 Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources. A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.

- Division Wise Sample Selection, Size and Distribution.
- (a) CFP Jatusana/Rewari): A sample of 136.4 ha/RKM (90.93%) area was drawn from the total area of 150 ha/RKM for field inspection and to estimate survival percentage of plantation. The sample was representative to all districts and schemes of plantation.
- (b) CFP Bhiwani: A sample of 100% coverage of project area 25 ha area was covered for field inspection and to estimate survival percentage of plantation.
- (c) CFP Hisar: A sample of 139.5 ha/RKM (79.71%) area was drawn from the total area of 175 ha/RKM for field inspection and to estimate survival percentage of plantation. The sample was representative to all districts and schemes of plantation.
- (d) DWLO Hisar, 100% area (414.5 ha) was covered for field inspection and to estimate survival percentage of plantation.
- To estimate survival rate of plantation a unit/plot/grid of 0.25 ha (50mx50m) was adopted at random locations for counting the plantation. Row counting was also adopted. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 Introduces the Project Concept. Strategy Objectives and Methodology.
 - Chapter-2 gives the Profile of the Project Area and its Location.
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with Project Constraints and Limitations
 - Chapter-6 provides Suggestions and Recommendations.

1.14 Limitations of the Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation. In-depth discussion with various stakeholders of the programme helped a lot in this regard.

Chapter-2

Profile of Project Area

2.1 State Profile

The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state

comprises 47 subdivisions, 21 districts, 45 subtehsits, 67 tehsits/towns and 116 blocks. The state is home to 81 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:

- Ambala Division has five (5) districts namely Kalthal, Ambala, Panchkula, Kurükshetra, and Yamunanagar.
- Gurguon Division has six (6) districts namely Patwal, Sirsa, Mahendragarh, Gurgaon, Rewarl, and Sirsa districts in its jurisdiction.
- Histor Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Histor and Sirsa districts.

 Rohtok Division also has five (5) districts namely Karnal, Jhaljar, Rohtak, Panipat, and Sonipat in its jurisdiction.



- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland white area under tree cover is 3.16% (1395 sq km). Thus forestland and tree cover together covers 6.80% of the state geographical area.
- About 81.80% land is under Net sown area /cultivation followed by not available for cultivation (13.11%), Current fallows (2.40%). Permanent pasture and other grazing lands (0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use Undla State of Forest Report 2011, FSI



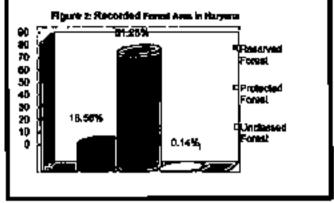
Dehraduni

2.1,2 Recorded Forest Area in Haryana

The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests

constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.

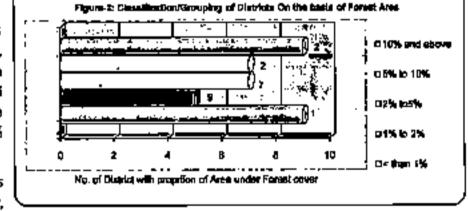
An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor, *Refer Figure-2*.

2.1.3 District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1: Two districts namely Panchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group-2: Two districts namely Gurgaon (8.35%) and Mewat (8.35%) and fall in the category of 5% to 10% forest
- Group-3: Seven districts namely Ambala, Palwal, Faridabad, Mahendragarh Bhiwani, Rewari and Kalthal fall in the category of 2% to 5% forest cover.



 Group-4: Nine districts namely Hisar, Jhzijar, Karnel Kunukshetra Panina

Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat and they fall in group of 1% to 2% forest cover.

♦ Group-5: One district namely Fatahabad which has less than 1% area under forest cover.

Refer Figure-3 for further Information.

Text State | Figure 2 | Figure 3 | F

- 2.2 Profile of CFP & DWLO Forest Divisions and Districts (Rewarf, Bhiwani, Hisar and other districts of project implementation)
 - a) CFP Jatasana /Rewari: Rewarl district is located in southern part of Haryana. It is 80 km away from New Delhi. It was accorded the status of a district by the government of Haryana on November 1, 1989. As per census 2011 it is the second least populous district of Haryana (out of 21)



after Panchkula, Rewari, which forms a part of the National Capital Region, is adjacent to Rajasthan and, therefore, has dust storms in summer. Rugged hilly terrain of Aravali ranges as well as sand dunes in the district affect the city's climate.

b) CFP Bhlwani: This district was created on 22rd December 1972. The district is named after its headquarters, Bhiwani city. Bhiwani city, it is believed, was founded by a Rajput named Neem after his wife Bhanf. The name Bhani later changed to Bhiyani and subsequently to Bhiwani. It occupies an area of 5,140 square kms and is situated between 28.19° and 29.05° North Latitudes and 75.26°. and 76.28° East Longitudes. It has 442 villages with a population of 1,425,022. The Bhiwani is around 124 kms major the district from Delhi. Other towns are Swani, Charkhi-Dadri, Loharu, Tosham and Bawani Khera.



c) CFP Hisar: It was the largest district in Haryana until Its reorganization in 1966 as some parts of it was transferred to the newly created Jind Bhiwani and Loharu tehsils were to Bhiwani district in 1974. Hisar was further bifurcated when Sirsa district was formed. Fatehabad district was later created as well. Hisar is located at 29°9'11' North Latitude and 75'43'6' East Longitude. It is situated at a distance of 164 kilometers northwest of Delhi on the National Highway (NH 10), Hisar city is one of the important and fast growing urban centers of Haryana. It has grown to a vital position on the urban map of



Haryana, it has come up because of location factors, its location is such that for any development away from the G.T. Road Hisar draws the attention.

- d) DWLO Hisan This forest division was situated in the district of Hisan However, its geographical area/project work was spread in two districts namely Hisar and Jind. Details are given in the above section.
- 2.3 Forest Cover in the districts Rewari, Bhiwani and Hisar
 - Rewart (India State of Forest Report-2011) district has 3.04% area under forest against 3.64% of state average. Main plant species adopted under CAMPA programme were Papri, Neem, Shisham, Siras, Arjun, Frans, Jamun, Clone Eucalyptus, etc.
 - Shiwani district has 3.18% area under forest cover. Main plant species adopted under CAMPA programme were Clone Eucalyptus, Jamun, Papri, Neem, Sahtoot, Bakain, Shisham, etc.
 - Hisar district has 1.05% area under forest cover. Main plant species adopted under CAMPA. programme at by CFP Hisar were Eucalyptus Clone, Siras, Pilkhan, Papri, Shisham, Bakain, Neem, Arjun, Jand, etc.

Chapter-3

Quantitative Evaluation and Findings

- 3.1 (A) Classification of Area Covered/Treated (CFP Jatusana/Rewart)
 - ◆ CFP Jatusana (Rewari) Covered 150 ha/RKM (100 ha and 50 RKM) land under CAMPA by adopting Linear Tree Grove (LTG-50 RKM) and Bio-drainage (100 ha) schemes of plantation during 2013-14. The project area was spread in Jhajjar (100 ha) and Mahendragerh (50 RKM) districts. Refer table-3.1a for detail information.

Table 3.1s Area Covered/Treated by	GEO Jahranna Bossel Phile	See Clarine CAMPA #9013-140
Table 3.1s Area Covered/Treated by	CFP Jatuaana Porest Links	ACD LUDGAT GAMENA GRUTS-141

SI. No	District	Name of Range	Project/Plantation 53te	Land Category	Scheme of Plantation	Area in RIGH	Area in
1	√Jra ga r	-Ina∯ari	Outsidhen	Non Forest Land	Bio Casinege	60	100
1	Mahandegarh	Kanina	Pall University	Non Forest Land	LTG	19	- 60
3	Mahandergarh	Karasa	Maximumdergarh to Dhadhot Road D-5 LSR	Non Formal Land	LTG	10	8
4	Maherdergeft	Kanina	Bhojawae to Savel-Khahana Kacha way	Non Forsal Land	LTG	6	8
6	Maharatergech	Kanina	Bhojawas to Kalizata & Rombesa Road	Non Forest Land	LTO	3.5	8
-	Mehenderparh	Kanina	Kaloyia School & Animal Hospital	Non Forest Land	LTG	1.4	00
7	Mahendergarh	Kanins	Shapress School	Non Forest Land	LTG	1	8
	Mahandagarh	Kimina	Bhojewas Power House	Non Facest Land	L18.	0.58	8
	Matendergerh	Karima	Briojawas Animal Hospital	Non Forest Land	LTG	0.84	00
10	Mahendergarh	Kanina	Gartel School	Non Forest Land	LTG	1.1	8
11	Mahendergarh	Kenina	Sundeth Co. Operative Society	Non Forest Land	LTG	0.5	00
			Total			80	100

- 3.2 (A) Physical and Financial Target and Achievements (CFP Jatusana/Rewart)
 - Total expenditure of the entire project during 2013-14 was Rs 32.25 lakh against the target of same amount. Plantation work was carried out at 11 places in two districts, i.e. Mahendragarh and Jhajjar. Refer table 3.2b as given below.

Table-3.2b: Physical and Financial Target and Achievements of CPP Jetusanai Revert (2013-14)

24.	District.	Name of '	Project/Plantation Site	Physical (Area	for RICIATUS	Financia	il (în Rau)
No		Range		Target	Achieved	Terget '	Achieved
1	.Hedjer	Jhajar	Dubeldhen	100	100	1300000	1300000
2	Mehendergarh	Karaha	Pall University	19	19] 1	
3	Mahendergerh	Karitta	Magnifigration graphs to Characters Road D-8 L&R	14	16		
4	Mahandergarh	Kanina	Bhejawsa to Bewel-Khatrane Kacha way	6	ė .		
5	Mahendergarh	Karára	Bhojawas lo Katrala & Rembasa Road	3.6	a.c		
ō	Maheralesgerh	Karine	Kutrala School & Antroni Hospital	1,4	1.4	1925000	1925000
7	Mahambargarh	Kanina	Bhojaves School	1	, 1	1025000	1920000
6	Mahenderpach.	Kanins	Bholawas Power House	0.56	83.0] '	
7	Mehendegenh	Kanine	Bhojawas Ariengi Hospital	0.64	0.84] .	
10	Mehanderparh	Kanina	Garhi School	1.1	1.1]	
11	Nehenderparh	Kanina	Burrelph Co. Operative Society	0.5	0.5]	
		1	otal	150	160	3226000	1226200

- 3.3 (A) Inventory/ List of Plantation (CFP Jatusana/Rewart)
 - A total of 0.33 takh plant species of Clonal Eucalyptus, Gular, Intl., Neem, Papri, Pākhan, Sahtoot, Shisham, Siris, B. Dek, etc. were planted in the project at 11 places/sites on 150 ha/RKM land. Range wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3c.

Table 3.3c: Inventory/List of Plantation of CFP Jatuagna /Rewart under CAMPA (2013-14)

			antento premi ar r adizabili di Cir Pad				
24 PS	District	Name of Range	Project/Flamation See	Schema of Plantation	Area Ha/RKM	No. of plants	Name of Plant Species
1	Jinajar	Jianjer .	Dubaidhan	Bio Disinage	166	20000	Clonel Eucelyptus
2	Makestkagarh	Kampa.	Poll Unitrocally	LTG	19	4750	Neam, B. Dek, Papri, Imil Pilkhan, Sahtsoc, Shisham
3	Mahendregarh	Karéna	Merchandergerh to Dhadhot Road 0-6 USA	LTB	16	4000	Papa Shisham
4	Mahandragarh	Kanine	Bissiewas to Bevral-Khakana Kecha way	LTG	В	1500	Papri
5	Machineratragente	Kenjne	Bhojewas to Xalosia & Rambess Road	LTG	3.8	900	Papri
6	Mahentragaris	Karina	Kekrala School & Adincel Hospital	LTG	1.4	350	Paper
7	Mahendragarh	Kanina	Bhaje-se School	LTG	. 1	250	Papri, Gular, B. Dek Neem
8	Mahendragath	Karina	Rhojewas Power House	LTO	0.55	140	Sirts, B. Dek
9	Mahendragarh	Kanina	Bhojawas Arimai Hospital	LTO	0.84	210	Neem, Gular, B. Dek, Pithan, Sirks
10	Mathendragarti	Karahaa	Garti School	LTG	1.1	275	Papel, Neum, B. Dek.
. 1.1	Mahendragerh	Karaba	Sundrah Co. Operative Society	LTG	D.5	125	Papai, Neora, B. Dok, Sirts
			Total '		150	32500	

- 3.4 (A) Analysis of Sample Plantation and Survival Assessment (CFP Jatusana/Rewari)
 - A sample of 136.4 ha/RKM (90.93%) area was drawn by adopted stratified systematic random sampling technique for field inspection of plantation/project assets and to estimate survival percentage. The sample was representative to all districts and schemes of plantation.
 - Average survival percentage of plantation estimated was 81%. The survival percentage was highest (83%) at kakral School and animal hospital in Mahendragarh district and it was lowest (78%) at Dubaldhan in Jhajjar district. Average height of plantation was 9 feet. Growth and health of plantation was good. Refer table 3.4d for further information along as given below.

Table 3.4d: Analysis of Sample Planistion sites and Survival % of CFP Jetusana/Rewart (2013-14)

	Table data tribility and an aminipiary militarest and any arrived in an arrived in arrive								
BL No	District	Name of Range	Project/Plantation Site	Scheme of Plantation	ATM HMRKM	No. of plants	Planta Burylysd	Barvivsi (%)	
1	Jihujar _	.in militar	Dubatdhan	Bio Drainage	100	20000	15600	<i>1</i> B	
2	Mahendergarh	Karina	Pati University	LTG	19	4750	3885	12	
3	Mehendergarts	Karina	Manhendergach to Dhadhol Road 0-8 L&R	LTG	15	4630	3200	80	
4	Mehendengerh	Kantra	Kakrata School & Animal Hospital	LTO	1.4	380	290		
\Box			Terjul		136.4	29100 _	22964	€1	

3.1 (B) Classification of Area Covered/Treated (CFP Bhiwani)

A total of 25 ha land treated by CFP Bhiwani under CAMPA programme by adopting Biodrainage (Ridge) plantation scheme at one site during 2013-14. The project area was spread in the district of Jind only. Refer table-3.1e for detail information.

Table 3.1e Area Covered/Treated Under CAMPA of CFP Bhiwani Forest Division (2013-14)

SL No	Diatrict	Name of Range	Project/Plantation Site	Land Catagory	Scheme of Plantation	Area in ha
1.	Bulwani	Jind	(Chalrant-26 farmers	Private	Bio-Orainege	25
			· Total			28

3.2 (B) Physical and Financial Yarget and Achievements (CFP Bhiwani)

A sum of Rs 3.25 lakh was spent in project during 2013-14 against the target of same amount. Plantation work was carried out at one place in Jind district. Refer table 3.2-f as given below.

Table-5.2-f: Physical and Financial Target and Achievements of CFP Bithmani Forest Olytaion (2013-14)

BJ.	District	Nation of	Plantation Site	Physical (Area in ha)		A) Financiai (Ra. in isith)	
_ Ka		Raspo	FIGURE OF CASE	Terpet	Achievement	Tergel	Aphlevement
1	Bhheard	Jined	Khairan#-25 fagrans	25	25	3.26	3.25
		Tale	•	26	26	3.25	3.25

3.3 (B) Inventory/ List of Plantation (CFP Bitwent)

A total of 0.051 take plant species of Clonal Eucalyptus was planted in the project at one site and covered 25 ha land. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3g.

Table 3.3g: Inventory/List of Plantation of CFP Biblioani Forest Division (2013-14)

ᆲ	- Offertrical	Name of	Project/Plantation Site	Scheres of	Area in	No. of Plants	Nume of Plant
- Na		Range	-	Pleatellen	ha.		ii pecies
1	Bhteni	Jind 1	Khairant-28 tarmen	Bito-Data Intege	25	5100	Eucalypius done
			Total		25	6100	

3.4 (B) Analysis of Sample Plantation and Survival Assessment (CEP Bhiwani)

- There was 100%ccoverage of project area 25 ha for field inspection of plantation and to estimate survival percentage of plantation.
- Average survival percentage of plantation estimated was 85% at Kharainti village among 26 farmers. Average height of plantation was 9 feet. Growth and health of plantation was very good. Refer table 3.4h for further information along with photographs as given below.

Table 3.4h; Analysis of Sample Plantation and Survival % of CFP Bhiwani (2013-14).

위. No	District	Name of Range	Project/Plantetion Site	Scheme of Plantation	Area in he	No. eri pilanta	No. of Plants Burvived	Burylyal (%)
1	Bonheam	Jind	Kheiranti-26 farmers	Blo-Drainage	25	5100	4586	85
			Total		26	5100	4335	85

3.1 (C) Classification of Area Covered/Treated (CFP Hisar)

CFP Hisar Forest Division treated 175 ha/RKM land (125 ha and 50 RKM) by adopting LTG (50 RKM) and Bio-drainage (125 ha) schemes of plantation at 14 places during 2013-14. The project area was spread in three districts namely Hisar (50 ha), Sirsa (75 ha) and Fatehabad (50 RKM), Refer table-3.1i for detail information.

Table: 3.4! Area Covered/Treated Under CAMPA of CFP Hiser (2013-14).

\$1. Mg	District	Name of Range	Project/Plantation Bits	Land Catagory	Scheme of Plantation	Atto In RKM	Armé in
1	Hisar	Hear	Kumbhaq Farmers	Farris	CAMPA Blo-Orectego	8	50
2	Sins.	Sinea	Lohgarh	Farmland	CAMPA Bio-Drattage	8	75
3	Histor .	Haar	Ohansu-Ohingiana Road UR	Govt. Land	LTĞ	6.6	00
4	Histor	High	Sykhani-Bugarra Road L/R	Govil Land	LTG	2.6	00
5	Hear	Hisar	Xinata Pates Road UR	Govt Land	LTG	6.5	00
•	Hear	HEE	Pabra-Kandott Road L/R	Govt Land	LTO	2,6	00
7	Fatehalud	Fetebook	Metrosteur Rohi Read to Badopel 0-4Km L/A	Govt. Lette	LTG	3	00
ð	Federabed	Febersaned	Dehman to Gorakhpur Rd. o to 5 L/R	Govt, Land	LTG	3	00
8	Falehabed	Felehebed	Kitagiyan 10 Jiharlanda Red. Dito 4 Km. LAR		LTG	В	00
10	Falciusbed	Fereinabad	Khakari to Jhanii kalen Rd (I-4 Xm. L/R	Govi, Land	LTG	4	DC
11	Falchabed	Fatehebed	Definen to Moschi Rd, 0 to 6 Km. L/R	Govil Land	LTG	4	20
12	Fatehabad	Fallehabed	Jandii Lo Chandrawal-Bhullan Rd (1-5km L/R	Govt, Land	l rig	2	00
13	Fatehabad	Fatehabed	Badopel to Bhana Road L/R	Down Lend	LTG	2.5	[DO _
14	Fatehabad	Fatenebed	Dehman to shear 0-4 km L/R	Govs, Land	LTG	5.5	80
		82	125				

3.2 (C) Physical and Financial Target and Achievements (CFP Hiser)

 Total expenditure of the entire project during 2013-14 was Rs 29.19 takh against the target of same amount. Plantation work was carried out at 14 places/sites in three districts, i.e. Hisar, Fatehabad and Sirsa Refer table 3.2) as given below.

Table-3.2j: Physical and Financial Target and Achievements of CFP Hiser (2013-14).

SL. No	Destrict	Name of Range	Project/Planistics Bite		hysical in RKMha)		nectal (Au.)
N/O		, romige		Target	Achievement	Negral	Aphleversers
1	HEART	Hiser	Kumtheq Fermers	60 ha	50 to	618100	618100
2	Elms.	Sine	Longarti	75 ha	75 ha	768335	709335
3	Histor	History	Drumeu-Ohingsans Road L/R	8.5	B.6	280500	280300
4	Histor	History	Sutdani-Bugane Road UR	2.5	2.5	79100	79100
ð	Hiter	Hitter	Kinale Petra Road L/R	d,b	8.5	203100	203100
0	Hiser	Hbar	Pabra- Kandool Road L/R	2.5	2.5	63900	63900
7	Fetehebed	Falehebad	Moterenadous Roini Road to Badopal D-4Km L/R	3	3.	8 1600	81 50 0
8	Felehabad	Falehabad	Dehmen to Borakhpur Rd. o to 5 L/R	3	3	65530	885290
	Februaria	Fasehabad	Rhajuri to Jhafarita Rd. Oto 4 Km. UR			210800	210500
1D	Fatehabed	Fetensbed	Kinglant to Jinan's Joseph Rd. 0-4 Km. L/R	. 4	4	105300	105300
11	Fetchahad	Fatehebad	Detymen to Moostil Rd 0 to 5 Km, L/R	4	4	169900	159800
12	Falehabad	Fatelestad	Jandil to Chandrawal-Blutan Rd 0-8km LR	2	2	43800	43800
13	Felehabad	Falairabed	Bedopal to Sharra Road UR	2.5	2.5	111412	111412
14	Fatenabad	Farishabed	Dehmen to shear 0-4 km UR	5,6	8.5	120870	120670
			Total	175	175	2918747	2918747

3.3 (C) Inventory/ List of Plantation (CFP Hisar)

A total of 0.375 lakh plant species of Clonal Eucalyptus, Shisham, Bakain, Neem, B. Deh, etc. were planted in the project covered covering 175 ha/RKM land. District wise, range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3k.

Table 3.3k: Inventory/List of Plantation of CFP Hisar (2013-14).

\$1. No	Destrict	Harps of Range	Project/Plantation Site	Scheme of Plantation	Area Harrokee	No. of plants	Name of Plant Species
1	Histor	Hisar	Kumbhaq Farmers	CAMPA Bo-Ominage	50	10000	Clonel Sucalyptus
2	Sime	Sinus	Longarh	CAMPA Bo-Daimge	75	15000	Const Sucatypius
3	Hispar	Histor	Chansu-Ohingtons Road LfR	L7G	8.6	2126	Batain, Neem, Shisham
4	Hear	Hisar	Sukhani-Bugana Road L/R	LTG	2.5	525	Batolin, Noom, Shisham
5	Иват	Hbar	Kinale Pehre Road LIR	LTG	8.5	1625	Baltain, Moom, Shishem
Ģ	Hispar'	Histor	Pabra-Kandool Road L/R	LTG	2.5	625	(Chisteen
7	Feterature	February	Mohimmedpur Rohi Road to Badopal 0-4KmL/R	LTG	3	780	Neem. Shishem
Ŗ	Facetrabed	Fetchahed	Datuman to Gorakhpur Rd, o to 5 Lift	LTG	3	750	67 inches
•	Peterbudent	Forensbad	Khujuri to Jhalania Rd. Oto 4 Km. UR	LTG	8	1600	Statement, B. data.
10	Fatehated	Faterubad	Kithajuri to Jhardi Yallan Rd. 8-4 Kan. UR	LTG	4	1000	Ghisham, Meem
11	Farehabed	Falehabad	Determen to Mocchi Rtt. 0 to 8 Km. L/R	LTĠ	4	1000	Nerse, B. 444 Shisham, other
12	Falehebad	Falehebad	Janual to Chemirowes Bhotan Rd 0-Skm L/R	LTG	2	600	Shishem, B. dek
13	Fajalsahad	Falehabbd	Badopal to Bhana Road L/R	LTG	2.5	625	Noem Steham
14	Felehatsed	Falabada	Delhimen to sheen D-I kirk L/R	LTG	5.5	1375	(Shilphopma
	<u> </u>	.	Total		175	37600	

3.4 (C) Analysis of Sample Plantation and Survival Assessment (CFP Hisar)

- By adopted stratified systematic random sample technique 139.5 ha/RKM (79.71%) area was sampled for field inspection of plantation and to estimate survival percentage. The sample was representative to all districts and schemes of plantation.
- Average survival percentage of plantation estimated was 87%. The survival percentage was highest (91%) at Khumbha village of Hisar district and it was lowest (79%) at Dehman to Mocchi Rd. 0 to 6 Km. L/R in Fatehabad district. Average height of plantation was 9 feet. Growth and health of plantation was good. Refer table 3.4t for further information along with photographs as given below.

Table 3.4b Analysis of Sample Plantation and Survival % of CFP Histar (2013-14)

			DIE TWE VINNLAND OF ORMER LINGSMICH	- 110 Dai 121 - 21 Bi 1					
BI. No	District	Name of Range	Project/Plantation Site	Scheou of Pluralities	A/M Ha/RKNI	Ho, of plants	No. of plants Survived	Survival (%)	
1	Histor	Ħ.	Kumbhaq —Farmers	CAMPA Blo-Drainage	8	10000	84 0 0	- 91	
2	व्यक्त	Strat	Longerh	CAMPA Blo-Crainage	78	18000	13350	89	
3	Hüsser	Miles I	Subtrant-Bugana Road L/R	LTG	2.5	23	519	83	
4	Federated	Falshabed	Khujuri to Jhalania Rd. Clo 4 Km. UR	LTG	•	1500	1216	Ħ	
1	Falehabed	Fatehabed	Delimen to Moochi Rd. 0 to 8 Km. L/R	LTG	4	1000	790	79	
6	Falchsted	Fatehobed	Jandhito Chandrawsi-Bhutan Rd 0-8km L/R	LTG	. 2	500	420	64	
			7otal		1359.5	28625	25394	87	

3.1 (D) Classification of Area Covered/Treated (DWOL Hisar)

DWLO Hisar created three assets under CAMPA during 2013-14 namely plantation (414.4 ha), concrete wall with iron chain link (504 RKM) and purchase of one vehicle. Plantation was conducted by adopting CA (TP) scheme of plantation at one place. The project area was located in Jind district. Refer table-3.1j for detail information.

Table 3.1) Area Covered/Trested Under CAMPA of DWQL Figur Forest Division (2013-14).

	Phintasian Work									
BI. No	Oleanica	Scheme of Plantation	Apres in the							
1,	(, Jind Jind Bir Bers BanJind (Netive Ffort Species) RF Wildlife CA-TP									
	Other Activities									
2.	Himar	Histor	Fending of Dear Park, Hear	SO4 RKM						
3.	3. Histor Histor Purchase of Artinal Resource Vehicle one									
Total										

3.2 (D) Physical and Financial Target and Achievements (DWOL Hisar)

• Total expenditure in the entire project was Rs 30.75 (akh against the target of same amount. It was Rs. 10 (akh on plantation work, Rs. 14.83 (akh on fencing and Rs. 5.92 (akh on purchase of vehicle. Refer table 3.2k, as given below.

Table-3.20: Physical and Financial Target and Activevements of DWOL Missr Forest Division (2013-14)

84.	District	Name of	, Propert/Plantation Site	Physical	(Area in he)	Pinanciai (Re. in (skb)		
No.		Range		Target	, Achievement	Tenget	Achievement.	
1	And	Ž	Bir Bara Barulind (Native Plant Species)	414,4	-414,4	10.00	10.00	
2	Hipper	Hear	Fencing of Oper Park, Histor (504 RKM)	14.83	14.83			
1	Hom	Haur	Purchase of Ardrial Rescue Vehicle (one)		8.92	5.92		
			Total	414,4	414,4	10.74	30.76	

3.3 (D) Inventory/ List of Plantation (DWOL Hisar)

A total of 0.060 takh plant species of Neem, Jamun, Pikhan, Vad, Pipal, Baheda, Sahtoot, Gular, etc. were planted under Iron gablon at Bir Bara Ban RF in Jind at three patches covering 414.4 ha land. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3L.

Table 3.3 I: Inventory/List of Plantation of OWOL Hissir Forest Division (2013-14)

SI. No	Chetelat.	Name of Range	Project/Pleatation Bits	Scheme of Plantation	Arms in the	No. of Plants	
١.	Jind	Jind	Bir Barta Ban, Jind (Madve Plants)	CA-TP	414.4	600	Noom, James, Pfisher, Ved. Pipel. Behede, Sehtnot, Guinr, etc.

3.4 (D) Analysis of Sample Plantation and Survival Assessment (DWOL Filesr)

• The entire plantation area 414.4 ha (100%) was visited in the field inspection of plantation area and to estimate survival percentage. Average survival percentage of plantation estimated at DWLO Hisar was 55%, Refer table 3.4m for further information as given below.

Table 3.4m: Analysis of Sample Plantation and Survival % of DWOL Maar Forcet Division (2013-14)

SL No.	District	Name of Range	Project/Plantation Site	Scheme of Plantation	Ales in	No. of Plants	No. of plants Survived	turyiyal (%)
1.	Jane 1	-Erd	Bir Baus, Danslind (Methys Plant)	CATP	414,4	600	330	65

3.5 (D) Assessment of Other Assets and Activities of CAMPA

As discussed above besides plantation DWLO Hisar also created two other assets like creation concrete wall with iron chain link fencing at Deer Park Hisar and purchase of one vehicle in the division, Refer table 3.5 for detail information.

Table 3.6: Assessment of Other Assets and Activities OWOL Hiser Forest Division (2013-14)

8L	District	Hame of Renge	Asset Name		Pleancial (Rs. in fakh)		
Mc.				Turget	Anthlevement	Americ	
1.	Hispan	Hisar	Femoing of Osar Park, Hear	14.83	14.63		
2.	Hisar	Histor	Purchase of Artificial Resours Vehicle	6.92	6.92	Very good	
			20.75	20.74	l		

3.6 Registers/Records Maintained in the Project

In all the four forest divisions (CFP Jatusana, CFP Bhiwani, CFP Hisar and DWLO Hisar) project authorities maintained work register and cashbook under CAMPA programme. Plantation journal would be prepared of the respective plantation sites as stated by the project authorities. It was missing in all of them.

3.7 Monitoring and Evaluation System in the Project.

It is conducted by a separate wing called M & E Wing, it is conducted once or twice a year as reported by the project authorities. The last evaluation of state CAMPA Haryana of CFP Jatusana, CFP Bhiwani, CFP Hisar and DWLO forest divisions was conducted in September-October 2014, M & E wing consists of one CF and two DCF. Its head office is at Kamal M & E wing carries out monitoring & evaluation of entire forestry programmes including CAMPA coming under state and central jurisdiction.

3.8 Involvement of Independent Agency for Evaluation of CAMPA

Agricultural Finance Corporation Ltd. (AFC Limited), a Delhi based agency carried out monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12 prior to current monitoring & evaluation being carried out by Locus Research & Consultants Pyt. Ltd. Overall findings of the study by AFC Limited were satisfactory as reported.

3.9 Details of Bank Account and Flow of Funds.

Bank accounts of the respective forest divisions (CFP Jatusana, Bhiwani and Hisar) for CAMPA Programme were operating) with Corporation Bank at direct headquarters branches. The signing authorities were Divisional Forest Officers. Flow of funds was smooth as reported by various stakeholders of the programme.

Chapter-4

Qualitative Analysis and Findings

4.1 Selection and Preference of Species under CAMPA

The project authority of respective forest divisions (CFP Jatusana, Bhiwani and Hisar) preferred mostly local plant species at most of plantation sites. However, factors like topography and terrain, soil type, local climate, intensity of rainfall, suitability of species in the area, demand by local community, etc. were also considered in the selection of plant species.

4.2 Soil and Moisture Conservation

Most of the plantation sites covered under CAMPA helped in improving soil moisture conservation to varying degree. However, limitation of funds on this head of the programme could not provide adequate options to the project authority to create additional work along with plantation.

4.3 Assessment of Survival Percentage

- The survival percentage of plantation among forest divisions CFP Jatusana, CFP Bhiwani, CFP Hisar and DWLO Hisar was estimated separately. Details are discussed below.
- CFP Jatusana/Rewari: Average survival percentage of plantation estimated was 81%. The survival percentage was highest (83%) at kakrala School and animal hospital in Mahendragath district and it was towest (78%) at Dubaldhan in Jhallar district. Average height of plantation was 9 feet. Growth and health of plantation was good. Better method of protection and maintenance of project assets resulted into good survival percentage of plantation.
- CFP Bhiwani; Average survival percentage of plantation estimated was 85% at Kharainti village among 26 farmers. Average height of plantation was 9 feet. Growth and health of plantation was very good. The project authority also followed intensive method of replacement of dead species and also helped in this regard.
- OFP Hisar: Average survival percentage of plantation estimated was 87%. The survival percentage was highest (91%) at Khumbha village of Hisar district and it was lowest (79%) at Dehman to Mocchi Rd. 0 to 6 Km. L/R in Fatebabad district. Average height of plantation was 9 feet. Growth and health of plantation was good.
- DWLO Hisar: Average survival percentage of plantation estimated at DWLO Hisar was 55%
 Average height of plantation was 9 feet. Growth and health of plantation was Average. Due
 damage caused by wild animals especially monkeys, the survival percentage was not satisfactory.
- To estimate survival percentage a sample plot of 0.25 ha (50meterx50meter) was adopted at random location and row counting of plantation was also adopted to count the seedling at random location. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

There was limited scope of natural regeneration of plant species at most of the plantation area. Adoption of high proportion of clone Eucalyptus in the project along bunds of agricultural fields in single and double rows had little scope of it. Secondly, roadside plantation also had limited scope of natural regeneration. There were some glimpses of it at few locations, where there was availability of regular irrigation facility. Grasses and weeds were common phenomenon at most of these areas.

4.5 Quality of Work

As discussed above overall quality of plantation of all three divisions was satisfactory. The survival percentage, growth and health of plantation at majority locations were very good as observed during field inspection. Members of evaluation team covered more than 50% project area of three divisions during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals (rabbits, blue bull, porcupine, etc.) destruction caused by humans, poor soil condition, extreme nature of climate (very high in summer low in winter), erratic nature of monsoon rain, etc.

4.7 Protection and Maintenance of Plantation

- In physical sense the project authority of respective forest division adopted barbed wire and bush fencing at most plantation sites under protection of plantation. At few places brick/ iron/wood gabions were also adopted along with barbed wire in this regard.
- Foresters and forest guards used to make regular rounds of plantation area in the process of protection and maintenance of project assets. There should be better care of plantation through elaborate fencing and regular care. The process of awareness raising and motivation of local community should be adopted in the project at regular intervals.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

Regular forest staffs like Range Forest Officers (RFO), Foresters and Forest Guards were trained to tackle necessary work of forestry programmes under CAMPA. Temporary and daily wages workers, cattle watchers, similar other staffs, etc. should be imported necessary skill tearning and enhancement programmes so that they could deal with new challenges of the programme. Interactive programmes and meetings were organized on the initiatives of DFOs to motivate forest staffs with necessary information on forestry programmes capacity building and to improve their performance during duty.

4.9 Role of Local People in Project Work.

There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts, Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

The programme accrued direct and indirect benefits. Plantation work brought additional geographical area under vegetation and forest cover, it resulted into addition of area under forest, additional availability of fuel-wood, fodder, other forest produces, etc. The programme also helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT

There were a number of noticed and anthropogenic constraints and limitations tosed by project authority during Implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

5.1 Unprotect Grazing by Loose Domestic Animals

• Grazing by loose domestic animals was the most common problem in causing death and destruction of CAMPA plantation in all the three forest divisions (CFP Jatusana, CFP Bhiwani and CFP Hisar), it also impacted growth and health of plantation. Grazing caused far reaching damage to plantation as animals feet loosen the top soil and causing erosion of soil and had a cascading detrimental effect on all saplings planted in the area, it led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff

♦ The Project authority of some forest divisions were of the opinion that during 2013-14 there was shortage of frontline staffs like foresters and forest guards in their divisions. It impacted CAMPA programme adversely. However, fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and currently there was no shortage of staff.

5.3 Low Wage Rate under Forest Department Adversely Impacted Programme

• Wage rate of forest department was much low (@Rs. 213 per day) as compared to industrial establishments and in urban areas (@Rs. 400-500 per day). It was a limitation to the project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme.

5.4 Rapid Urbanization/ Urban Sprawl and High demand of Labour Force

• Due to high rate of urbanization and industrial growth in many parts of the project area, there was high demand of labour force. The forest department had to face shortage of labour whenever they required, it impacted the programme adversely.

5.5 Inadequate Infrastructure

 It was reported that there was inadequacy of necessary infrastructure including availability of vehicles especially at range level offices as reported by the project authority. It impacted performance and quality of work as well as project outcome.

5.6 Blotic and Natural Factors Impacting Survival and Quality of Plantation

Biotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), entatic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

- 6.1 Long Term Measures Should be Adopted to Control Grazing by Domestic Animals
 - As discussed above time and again about the menace of grazing in most part of plantation area and hence it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue builts and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 There should be Adequate Measures of Protection and Maintenance of Plantation
 - Project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing of barbed wire was found visible in but they were broken at a number of places. Timely repair or replacement of broken wires should be made at that moment, it is suggested that along road plantation the project authority should adopt gabions (Iron/brick/wood) as barbed wire fencing was not very successful and full proof.
- 6.3 Vacant Posts Should be Filled on Time
 - It is suggested that any vacant post of forest staff should be filled on time through proper recruitment channel to ease the pressure on existing staff. For effective implementation and management of afforestation programme necessary number of staff was prerequisite. However, currently there was no shortage of such staff but it was there during 2013-14.
- 6.4 Provision of fine /punishment be Made Against Wrong indulgence
 - There should be provision of fine/punishment or both against those persons who were found involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent. The project authority said that as per the forest rules some provisions were applied against such people.
- 6.5 Capacity-Building and Skill Enhancement Programme Should be Organized
 - The project authority should organize Capacity building and skill enhancement programmes for forest staffs, local community to learn for new ideas and knowledge and to update their knowledge as well. However, foresters and forest guards were already trained but it would help in keeping their knowledge up to date.
- 6.6 Monitoring and Evaluation Process Should be Regular, Systematic and Effective
 - Monitoring and evaluation is a critical component of most administered programmes and its significance is more pronounced for mass plantation programme like CAMPA. As per the project authority M & E wing of forest department takes care of this work for the entire forestry programme of the state. It consists of one CF and two DFOs, its head office is located at Karnal Monitored & evaluation of CAMPA programme along with other forestry projects is conducted once or sometimes twice a year. The internal monitoring and evaluation of the project at division level should be made effective and carried out at regular interval.

- 6.7 Intensive Awareness Campaign to Motivate Local Community
 - Intensive Awareness Campaign should be followed by adopting mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community. This should be a regular activity.
- 6.8 Exposure Visit should Organized from Time to Time
 - Project authority should organize exposure visit of forest staffs within or outside state to successful plantation areas and advanced nurseries for better understanding and learning new ideas and knowledge. Such visits are important for development process and also to improve quality and outcome of the programme.
- 6.9 Introduce Practice and Concept of Carbon Credits and Encourage to Earn It
 - The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.
 - Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option, if a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.10 Interview with Project Authority

- a) In the process of monitoring and evaluation of the programme the members of evaluation team interacted and interviewed the project authority face to face in most cases and in a few cases their view points were shared through telephonic discussion. A brief summary of interviews along their contacts is as follows.
 - DFO CFP Jatusana (Rewarl): Mob;+91-9456528807, Office:: +91-1274251231
 - DFO CFP Bhiwant Mob;+91-9466004769, Office;+91-1664249049.
 - DFO CFP Hisar: Mobi+91-9416407999, Office:+91-1662259713.
 - DWLO Hisar: Mob;+91-9466560033, Office: +91-1662259233.
 - 4 Summary of interviews held with DFOs, RFOs, Foresters, etc. is as follows.
- The project authorities showed satisfaction with overall progress and outcome of CAMPA plantation and related activities carried out during 2013-14 at CFP Jatusana (Rewari), CFP Bhiwani and CFP Hisar forest divisions. In the selection of plant species preference was given to clone Eucalyptus, followed by Bakain, Frans, Jamun, Jand, Neem, Papri, Pipal, Pilkhan, Sahtoot, Shisham, Siras, Imli, B. Dek, Vad, etc. There was very good survival rate at most of the plantation sites as observed during field inspection. The project authorities were of the view that adoption of clone Eucalyptus helped in keeping good survival and better growth. They also expressed that intensive field visit by forest staff also helped in this regard. Grazing by domestic animals was biggest threat to plantation as advocated by project authority. They also advocated for additional funds so that better provision of fencing could be made and LTG plantation should be guarded with gabions.

6.11 Evaluator's Assessment

After verification of official records, Inspection of project areas, interaction with project authorities (DFOs, RFOs, Foresters, etc.) and other stakeholders of programme, etc., it was found that the above statements of project authority was true to a great extent. They followed stated guidelines of programme to a great extent. It is further suggested that internal monitoring and evaluation system of the programme should be carried out effectively on regular basis.

Photographs of Plantation Area: CFP Jatusana, Bhiwani, Hisar and DWLO Hisar (2013-14)

- CFP Jeturane: 11 Sep : (150 ha/RKM) CFP Bhiveant: 1 Sites : (25 ha) CFP Hispr: 13 Sites : (176 ha/RKM) : (414.8 ha)
- DWLD Histor 3 after

 Main Plant Species: Behede, Bekein, Eucelyptus clone, Frans, Guler, Imfr. Jamun, Noom, Papri, Pipel, Pishan, Sahloot, Shisham, Siras, Vad. etc.

To CFP Jetusana (Rewari)





















DWLO Hisar





9L	Type of band	Name of	Name of	Final A.P.O. State C	Khassa	Plantintion		ugget	No. of				
No		Scheme/ District/		,	No.	Month		ered	Phanes	Name Of Species	Spacing	GPS Coo	rdinahes
	<u> </u>	<u></u>			KM/RD		Ha	RAM	1	1	(m)	1.55	
1	2	3	. 4	. 5	6	7		9	10	11, -	12.	Longitude	Latticude
L	Farmland	tio draituge	Jan and and and and and and and and and a	Dubaldhan	NA.	July-Aug.	100	100	70000	Clonal Eucalyptus	1.5x1.5	NA NA	, 14 NA
2	Non-Forestland	LTG	Mahangri Alamina	Pall University	NA	July-Aug	98	19	4750	Neem, B. Oek, Papri, Imii Pilifaun, Salitoot, Shighem	4.01	NA	NA.
•	Non-Forestland	LTG	Mahenyah (Kuraya	Menhanderpath to Dhadhol Road 0-8 LAR	***	July-Aug	90	TB	4000	Papri Shishem	4×4	PLA	NA.
•	Non-forestland	LTG	Mahengrh /Kanina	Bhojawaa to Beveri- Khairana Kacha way	NA.	July-Aug	00		1500	Papri	454	- NA	NA.
5	Non-Forestland	LTG	Mahengrit /Kamina	Englance to Kakrain & Rumbans Road	NGA,	July-Aug	00	3.5	900	Papri	4x4 ·	NA	NA.
6.	Non-Forestland	LYG	Mahengih /Kantra	Kekrela School & Animal Hospital	NA	July-Aug	00	14	350	Papri	4x4	NA.	NA
7.	Non-Forestland	LTG	Mehenorh (Karama	Bholaves School	NA	July-Aug	-	٠, -	750	Papri, Gular, B. Dek Neem	414		
L	Non-Forestland	LTG	Mahongeh /Kanina	Bhapress Power House	NA.	July-Aug	œ	0.66	140	Sets. B. Cek	44	NA NA	NA NA
-	Non-Forestland	LTG	Mahangri //Qerica	Bhojawaa Anique Hospital	NA	July-Aug	00	0.84	210	Neem, Gular, B. Dek, Piluhan, Sata	464	NA -	NA.
1	Non-forestand	LTG	Maharapin Atlantina	Garhi Bizhod		July-Aug	-80	1,1	275	Papri, Neem, B. Dek,	424	NA.	
	Non-Forestland	ΓLC	Mahangrh Kurism	Sundreft Co. Operative Society		July-For	00	0.5	125	Papri, Noon, B. Delt, Sirts	4x4	- MA	NA NA
			Total				J00	50	32500	- -		-	

				Final AP.O.	State CAMP	A Scheme, C	JP Oh	Hami of	Haryana C	2023-14)			_		
SI. Na	Type of land (Forest/Non- forest)	Name of Scheme/	Name of District/	Name of Sky	Khasra. No.	Plantation Month						NUMBER OF SERVICES	Specing	GPS Countinates	
	101440	component,	Range		L KDAZ/ROD		HE	RKIM	Pund	, , , , , ,	(m)	Longitude	Lettucia		
1	_ 2	3	4	5	6	7	g	9	10	11	12	13	14		
1.	Facretand	Bio-Oralinage	Jined Jine	Khairani Villago, 26 Farmers	MA	July-Aug.	23	D0		Clored Ercalyptus	1.5±1.5	NA.	NA		
		_	Tota	<u> </u>	<u> </u>		25	<u> </u>	\$100						

SL No	Type of land (Farest/Nas- formati	Name of Schemas' component	Martin of District/ Range	Final A.P.O. Hame of Blue	Kimara No. KIM/RD	Plantation Month	An	negat himead	No. of Planta	Name Of Speaker	Specing (m)	GPS Coo	ndistan.
7	2	3	4	- -	-	 , -	Ha H	RION	10	11		Longitude	Lettlude
1	Fam/Private land	Bis-Ornings	l-Marrie Magay	Kumbha	NA,	July	DC	60	10000	Clamai Eucolypous	1.541,5	13 MA	NA.
2 .	Fame/Private Mand	Bio-Duiriaga	Since/Sings	Longarh	NA	Jay	00	75	75000	Clonel Excelyptus	1.8x1.5	NA.	NA NA
3.	Non- Forestland	LTG	Hhard-Bor	Changu-Dhingtone Roed	NA.	July	44	00	2125	Batcain, Neom, Britisham	1.6x1.8	NA NA	NA.
4.	Nogs- Forestiend	LTG	Hanrif Esar	Sukhani-Sugaru Road L/R	MA	July	2,5	500	526	Baltain, Aborn, Shistarn	1.5-1.5	NA.	- in
5.	Non- For estare i	LTG	i dia para di Assar	Kinela Patra Road L/R	144	July 1	6.5	60	1625	Bakain, Neev, Shistam	1 <u>-5</u> x1.5	NA.	HA.
١,	Non- Forestand	LTG	Hiseri-Fear	Paters- Karrelooi Road L/R	NA.	J. By	2.5	00	925	Shiekam	1.623,5	NA -	NA.
r.	Non- Forestland	LTG	Fototobad/ Fototobad	Mcharmadpur Rotii Roed 30 Bedopel 0-4KmL#7	NA	July	3		750	Noom, Erisham	454	NA	NA.
a.	Non- Forestend	LTG	Felshebad/ Felshebad	Dehman to Gondingur Rd. o to 5 L/R	MA	July	3	Da	750	Shiston	424	NA.	NA.
ì.	Non- Formatignal	TIG	Felchebod/ Fatetubed	Khaiperi to Jhapenia Rd. (Ito 4 Km. LAR	NA	-Valy	ê	00	1500	Shishana, B. chak	414	NA	NA.
D.]	Non- Foregiand	LTG	Fatehabadi Patehabad	Khajuri to Jingmii kalan Rd. 0-4 Km. Lift	NA.	July	4	8	1000	Shieham, Naem	April	- m -	NA
1.	Non- Forestland	LTG	Felchebad/ Falchebad	Défamus lo Mocché Rd. Dio 6 Km. L/R	NA,	July	4	00	1000	Neem. B. dek Shishem,	454	- NA	NA.
2	Non- Forestand	נוס	Feschalted / Futehabed	Jane'l in Chandrawal- Bhytan Ref 0-5km L/R	NA.	Jacop	2	00	\$00	Shishara, B, delt	434	NA.	NA.
1	Non- Forestend	LTG	Fatehabed* Fatehabed	Badopal to Bharm Road LAR	NA.	n Amily	2.5	-00	624	Manaria, Shiighguri	424	NA NA	NA.
٤.	Hon- Forsetland	LTG	Fatebabadi Fatebabad	Dehmen to should 0-4 km	NA	July	5.5	00	1378	Shahem	494	MA	NÄ
			T	otal		+	50	125	37,500		-	 -+	

	Final A.P.O. State CAMPA Schame, DWLO Histor of Naryana (2013-14)												
No	Type of last (ForestRips- forest)	Muma of Scheme	Mane of Olstrict Range	Name of Sile (Asset	Manager Man KMERED	Plantation Month	Target A	RMRR.	Ho, of Plants	Name Of Species	Specing (m)	GP8 Coo	-dinstria Letitude
7	7	1	4	- 6	•	7	•	•	10	11	12 -	13	- 4
1.	Forcettend-RF	CA-TP	JindiJind	Bir Bara Ban And (Nativo Plant Species)	NA.	July-Aug.	414.4	100	600	Noom, Jemun, Pikipin, Vari, Pipal, Baheda, Sahmut, Gular, olg.	In Cathlen-NA	NA.	NA.
٤,	Forestand	2	H A GUY H GGY	Fincing of Deat Park, Histor-804 RKM	M	NA.	00	00	MA	NA.	NA .	NA.	NA.
3.	Divition	NA.	Holand-Opin-	Purchase of Animal Resour Vahicle-1	NA.	NA.	03	00	NA.	NA A	NA.	NA.	NA.
	Total						414.4	.00	500		 	 -	- -

Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOED)

Government of India, New Delhi



MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING! IMPLEMENTED BY FARIDABAD FOREST DIVISION (T) AND COMMUNITY, FOREST DIVISION IN FARIDABAD DISTRICTS OF HARYANA AND STATE OF THE PROPERTY OF THE PROPERT

Dyration of Evalvation: 2012-13

Final Draft Reports

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OFFICE OF PRINCIPAL CHIEF CONSERVATION OF FORESTS HARYAN

February, 2015

Qकारीसमञ्जूति by.

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Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Ministry of Environment & Forests (MOEF) Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY FARIDABAD FOREST DIVISION (T) AND COMMUNITY FOREST DIVISION IN FARIDABAD DISTRICT OF HARYANA

Duration of Evaluation: 2012-13

Final Draft Report

Submitted to
OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANAVAN
BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA

February, 2016

Conducted by

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Faridabad Forest Division (T) in Faridabad District of Haryana (2012-13)" was successfully completed. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal, and other officials at PCCF office especially DCF, Mr. Garg, Mr. Hembram and office staff Mr. D.P. Tyagi for reposing faith and awarding the work of Monitoring & Evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency...

I also express my thanks to DFO, Faridabad Forest Division (T), Ms Renjitha along with RFOs of Faridabad and Ballabgarh ranges and other forest staffs. My interaction with them helped me in understanding different aspects of CAMPA implementation and its progress during 2012-13.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt, Ltd. I am highly indebted to Mr. BKP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever i approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

New Delhi, February, 2015



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Preface

released. State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Parichkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana of Faridabad forest division by PCCF office on professional terms and conditions. Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

65.66 RKM forestland was treated under CAMPA by adopting Net Present Value (50.0 RKM) and Compensatory Afforestation (15.66 RKM) schemes of plantation in both ranges (Faridabad & Ballabgarh) during 2012-13, Besides, construction of forest guard hut/quarter was started at Pralapgarh forest colony in Ballabgarh range of the division. Total expenditure incurred in the above activities was Rs. 22.6 lakh. 0.289 lakh plant species of Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, Shisham, etc. was planted in the project.

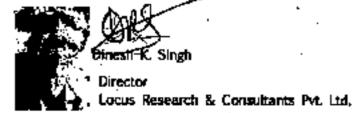
Average survival percentage of seedlings estimated was 65%. The survival percentage was highest at R.F. Alipur site/VFC (B1%) while it was lowest at Gurgaon Canal RD 0-7 L &R forestland site (57%). Average height of plantation was 6 feet. Average grading awarded to the programme was 6.4 (on 1 to 10 scale), which was very good.

Members of evaluation team interacted with a number of field level forest staff and local community in the process of field inspection and evaluation of the programme. At most places local people were happy with the afforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of fund was smooth as reported by the project authority. There was lack of awareness and not ready to own responsibility on public related issues among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future and avours of the project implementation.

New Dethi

February, 2015



ACRONYMS

ACF Assistant Conservator of Forests

Affo Afforestation

APCCF Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee

CF Conservator of Forests
CN Compartment Number
CPT Continuous Protection Trench

DCF Deputy Conservator of Forests

DFO Divisional Forest Officer
DG-Forests Director General Forest
DWLO Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Entry Point Activity

FDA Forest Development Agency
FGO Focus Group Discussion
FTC Forest and Tree Cover
GOI Government of India
GPS Global Positioning System

Faridabad Division (T) Faridabad Forest Division Territorial

la Hectare

JFMC Joint Forest Management Committee

M & E Monitoring & Evaluation
MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce
OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests.

PF Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Knometer
RO Range Officer
SC Scheduled Castes

SF Social Forestry

SMC Soil & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Village Forest Committee

LOCAL NAME AND BOTANICAL NAME OF PLANT SPECIES

SL No.	Common Name	Botanical Name
1.	Alstonia	Indian Mallow/ Devil Tree
2.	Arjun	Terminalia arjuna
3.	Bakain	Melia azedarach
4.	Blam Kheera	Kigelia pinnata
5.	Gular	Ficus giomerata
6.	Gulmonar	Delonix regia
7.	Karanj	Pongamia plnnata
8.	Kachnar	Bauhinía varjegate
9.	Kikar	Acacia Arabica
10.	Neem	Azadirecta indica
11,	Papri	Holoptelea integrifolia
12.	Pilkhan	Ficus virens ·
13.	Pipal	Ficus religiosa
14	Shisham	Dalbergia sissoo ,

GRADING AND EXECUTIVE SUMMARY

<u>ី ៤០ក្រាចពីនៃរប៉ាស់ Afforces តែបើការ " ស្រើ តែ៤០ក្រុមក្រុមការ ស្រើបត្រែការក្រាស់ ស្រីប្រែស្រីស្រី(CAMRA), Haryana-2012-43"</u>

Faridabad Forest Division in Faridabad District of Haryana

Average Grading on a Scale of 1 to 10					
Izem/Aspect Project Components					
Quantitative Aspects	Physical	9			
'	Financial	9			
Qualitative Aspects	Survival	6			
	Health of Plantation	6			
	Maintenance	6			
	Sustainability	5			
JFM/Social Aspects	Degree of Peoples' Participation	· 5			
	Satisfaction over Perceived Benefits by the Local Population	5.			
Overall Grading (Very Good) 6.4					

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of State CAMPA, Haryana at Faridabad Forest Division (T) in Faridabad district was conducted in the month of January 11-14, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency. During 2012-13, a total of 65.66 RKM forestland was treated by adopting NPV (50.0 RKM) and CA (15.66.0 RKM) plantation schemes at 5 places along with creation of asset at one place. There was 100% coverage of project sites/areas and assets in field visit and analysis. Summary of findings of the study is given below.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Parchkula.

3.0 OBJECTIVES OF THE NAP

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION /AREA OF MONITORING & EVALUATION

It covers Faridabad Forest Division (Territorial) in Faridabad district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2012-13.

6.0 NEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.D METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purposive sampling techniques were adopted as per need to interview forest officials and community leader. There was cent percent (100%) coverage area and project activities carried out by CAMPA at Faridabad during 2012-13. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, counting of plants in row was adopted.

9.D PROFILE OF THE STUDY AREA

- The state of Haryana comprises 21 districts, 45 sub-tehsils, 47 subdivisions, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- As per India State of Forest Report-2011, Faridabad district has 4.32% area under forest cover.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- During 2012-13, a total of 65.66 RXM forestland treated by adopting NPV (50.0 RXM) and CA (15.66 RKM) schemes of plantation with a total expenditure of Rs 22.6 lakh against the target of same amount.
- A total of 0.289 lakh plant species of Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, Shisham, etc. were planted in the project at five different sites comprising 65.66 RKM of forestland.

- Average survival percentage of seedlings estimated was 65%. It was highest at R.F Alipur site/VFC (81%) while it was lowest at Gurgaon Canal RD 0-7 L &R forestland site (57%). Average height of plantation was 6 feet. Growth and health of plantation was good.
- A two room forest guard hut/quarters with toilet cum bathroom, kitchen and overhead water tank (500 liters) was constructed at Pratapgarh Forest Complex of Ballabgarh forest range in the division.
- Important registers maintained in the project were work register, cashbook, sketch map, etc. Plantation
 journal was not available but the DFO assured us that plantation journal would be prepared very soon.
- The system of Monitoring and Evaluation (M & E) of CAMPA is conducted by a separate wing called M & E Wing. It is conducted either once or twice a year as reported by the project.
- In 2013, an agency named Agricultural Finance Corporation Ltd. of Delhi carried out last evaluation of CAMPA work of the duration of 2010-11 and 2011-12. Overall finding of the study was satisfactory.
- Bank account of CAMPA Programme of Faridabad forest division was in the name of Divisional Forest.
 Officer (DFO) with Corporation Bank at Faridabad Branch along with two ranges.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Important factors led the selection of species were nature of topography, soil type, climate, rainfall, sulfability of species in the area, economic value of plant species, preference shown by local community, etc.
- There was significant improvement in soil moisture conservation where plantation carried out under CAMPA programme.
- Estimated survival percentage of plantation carried out during 2012-13 was 65%. It was highest at R.F.
 Alipur (61%) while it was lowest at Gurgaon Canal RD 0-7 L&R forestland (57%).
- Overall quality of work especially plantation and creation of assets in the programme was found in good shape at majority locations as observed during field inspection.
- Important factors that Impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.
- Mostly barbed wire and bush fencing was found at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were also adopted along with barbed wire in this regard.
- There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area.. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

- Open grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation.

- Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It impacted quality and outcome of the programme adversely.
- Due to high rate of urbanization and industrialization in most part of the project area, there was high demand of labour force and hence the forest department had to face shortage of labour.
- Range offices were facing shortage of necessary vehicle and infrastructure as reported. It impacted
 performance and quality of work as well as outcome of project.
- Blotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of dimate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Some viable measures should be adopted to check grazing problem. Wild. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- The project authority should make necessary provision of protection and maintenance of plantation by adopting multi-pronged strategy. It is suggested that in urban and suburban areas the project authority should adopt gablons of Iron, brick, wood, etc. as barbed wire fencing was not successful.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community.
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF and two DFOs.
- There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nuklad-natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.
- Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthler environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

CHAPTER-1 -

PROJECT CONCEPT, STRATEGY, OBJECTIVE AND METHODOLOGY

1.1 CAMPA : An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.; a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators.
- Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- ◆ The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - III. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.

- ❖ That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs, This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:
 - i. Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation;
 - iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months, it is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Details of Establishment, State CAMPA

- The details of establishment of State CAMPA are summarized below :
- a) The State Government may establish the Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) in the State. The funds/monles received from various sources would be credited into the account of State CAMPA. It is as follows:
 - Amount transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation. Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The State Government may also credit to the State CAMPA
 - · Grants or aid received if any;
 - Any loan taken by the Authority or any borrowings made by it; and

- Any other sums received by the Authority by way of benefaction, gift or donations.
- c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 Establishment of State CAMPA. Haryana.

- On March 3, 2010, Haryana Government constituted the State Compensatory Afforestation Fund Management and Planning Authority (STATE CAMPA), Haryana for the purpose of management of funds, it will be registered as a Society by the State Government under the Societies Registration Act, 1850 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.
- State CAMPA, Haryana will have three bodies, namely a Governing Body, a Steering Committee and an Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-I), Chief Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the State Government for a period of two years will be its Members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State Compensatory Afforestation Fund Management and Planning Authority" (CAMPA) is intended as an instrument to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works, important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

- The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife conservation and protection and other related activities and for matters connected therewith or incidental thereto.
- State CAMPA would serve as a common repository of funds account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of CAMPA Programme

- Conservation, protection, regeneration and management of existing natural forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- Compensatory afforestation;
- Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
- Science, Research, Training and Capacity Building.
- Environment Protection and Sustainable Forest Management.

1.5 Geographic Location / Area of Monitoring & Evaluation

 The evaluation study covers Faridabad Forest Division (Territorial) in Faridabad district of Haryana.

1.6 Reference Period of Monitoring & Evaluation

The reference period of monitoring & evaluation CAMPA is one year, i.e. 2012-13.

1.7 Components of Project

- People's Participation
- ◆ Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
- Monitoring and Evaluation of the programme.
- Conservation and protection of forests, infrastructure development, wildlife conservation and protection and related activities.

1.8 Project Implementing Agency and Proposed Activities of the Programme

 A brief outline of the project agency and programme implementation is given below in table-1.2

Table 12: Project Implementing Agency and Proposed Activities of the Programme

m	olect	Imbreu	ieming	Agency
-		-		

◆ District : Faridabad ◆ Forest Division : Faridabad

♦ Forest Circle : Gurgaon Circle, Gurgaon

State : Нагуала.

Project Location

Watersheds/Sub-watersheds : Gurgaon Canal RD50-52(R), RD 0-27 L&R

Development Blocks : Faridabad, Bopani, Suraj Kund and Pali (Faridabad Range).

Ballabgarh, Sikrauna, Dayalpur and Tigaon (Ballabgarh Range)

Forest Ranges : Faridabad and Ballabgarh

Villages/JFMCs/Site : 6 (Slx)

Other Development Activities in the Project: Construction of Forest guard's hut/ quarters

 Preparation of Micro-plan and Plantation Journal if any: Plantation journals were found but there microplans were not available. It was not necessary in the CAMPA program as reported by project Authority.

Project Duration, Area and Cost

◆ Project Duration : 2012-13

Project Area : Target: 65.66 RKM Achievement: 65.66 RKM

♦ Project Cost : Target: Rs. 22.605 lakh, Achievement: Rs. 22.605 lakh

Proposed Strategies and Saltert Features of the Project

- Plantation Schemes: NPV and CA
- Important community assets created in the project: Construction of Forest guard but / quarter at Pratapgarh in Ballabagarh range of the division.

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

Scope of study is confined to Faridabad Forest Division (1) in Faridabad district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - + To assess physical and financial targets and achievements

- + To evaluate performance of the programme -
- + To estimate of survival percentage of plant species adopted in the project.
- To analyze factors impacting plantation survival and suggest remedial measures.
- To assess peoples' participation and assets created.
- To assess the direct and indirect benefits and impact of the programme.
- To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques
 were adopted wherever required in the selection of plantation sites, villages, forest officials
 and community leader for conducting interviews, etc.

1.13 Sample Selection, Size and Distribution

- There cent percent coverage of plantation area and other project assets during field visit in the process of evaluation of CAMPA programme in the division during 2012-13. A total 65.66 RKM forestland was treated by adopting two schemes of plantation namely Net Present Value (50.0 RKM) and Compensatory Afforestation (15.66 RKM) at five places. Besides, there was construction of forest guard but at one place. The project activity was spread over both the forest ranges of the division namely Faridabad and Ballabgarh schemes of plantation.
- To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting them at random locations in the plantation area.

1.14 Chapter-wise organization of Report -

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the Project Concept Strategy Objectives and Methodology.
 - Chapter 2 gives the <u>Profile of the Project Area and its Location</u>
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with Limitations and Constraints_of_the_Project.
 - Chapter-6 provides Suggestions and Recommendations for Improvement.

1.15 Limitations of the Study

- It hard to find respondents at both rural and urban areas of project implementation, it impacted collection necessary information.
- Lack of necessary awareness among community about details of CAMPA also impacted collection of necessary information. However, adequate efforts were made by members of evaluation team to minimize these limitations.

CHAPTER-2

PROFILE OF PROJECT AREA

2.1 State Profile

 The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambata Division, Hisar Division and Gurgaon Division. The state

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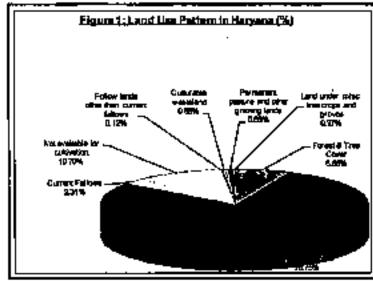
comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.

- Ambala Division has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar.
 - Gurgaon Division has six (6) districts namely Palwal,
 Faridabad, Mahendragarh, Gurgaon, Rewari, and Mewat districts in its jurisdiction.
 - While Hişar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jund, Hisar and Sursa districts.
 - And Rohtak Division has also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonipat districts in its jurisdiction.

2.1.1 Land_Use_Pattern_of_Haryana

◆ Total geographical area of Haryana is 44212 sq km which is 1,35% of the total area of the country. In terms of land use patterns about 3,64% (1395 sq km) area goes to forestland while tree cover in the state is 3,16% (1395 sq km). Thus forest and tree cover together covers 6,80% of the state.

 Haryaла is an agricultural state and about 81.80% land 15 under cultivation/Net sown area followed by not available for cultivation (13.11%). Current fallows (2.40%). Permanent pasture and other grazing (0.59%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%). Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land

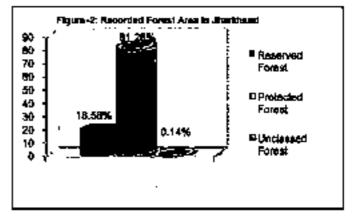


Use (India State of Forest Report 2011, FSI Dehra Dun).

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2.1.2Recorded Forest Area in Haryana

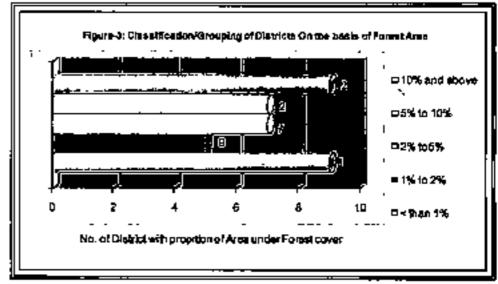
- The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. See Figure-2.

2.1.3District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1: Two districts namely Punchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group=2: two districts namely Gurgaon (8.35%) and Mewat (8.35%) fall in the category of 5% to 10% forest cover.
- Gcoup-3: It followed seven districts namely Faridabad (4.32%), Palwal, Bhiwani, Ambala, Rewari, Mahendragarh and Kaithal fall in the category of 2% to 5% forest cover.



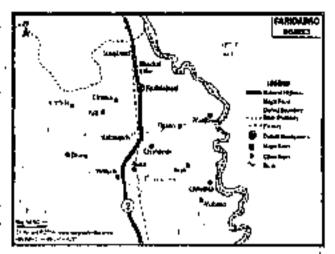
- Group_4: On the other hand 9 districts namely Hisar, Jhajjar, Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat have 1% to 2% geographical area under forest cover.
- Group-5: Fatehabad is the only district which has less than 1% area under forest cover.
 Refer Figure-3 for pictorial understanding.

2.2 Proffle of Faridabad District and Forest Division.

History: Faridabad District came into existence on 15 August 1979 as the 12th district of the state. It was carved out from erstwhile Gurgaon district. Faridabad, the south-eastern district in the state of Haryana, was founded in 1607 AD by Farid, the treasurer of Jahangir, with the object of protecting the Grand Trunk Road (now National Highway 2), which passed through the town. Sheikh Farid built a fort, a tank and a mosque, which are now in ruins. Later on, it became the headquarters of a Pargana, which was held in jagir by Ballabgarh ruler.

Geography: Faridabad is located at 28,43°N 77.32° E longitude, it has an average elevation
of 198 metres (649 ft). City is located on the plains of river Yamuna. It is bordered by the

Yamuna to the east and Aravali hills towards the west and southwest. Today, virtually all of the land has been developing with residential housing as the population of the city swelled during the mid-1990s. Much like the rest of India, the people of Faridabad rely on the ground water for their basic needs, which is gift οľ good monsoon Unlike Gurgaon, which is prone to direct hot winds coming from (in Rajasthan), Faridabad is blessed because of Aravall Range Mountains between Gurgaon and



Faridabad blocking hot summer winds to enter its geographical space. Faridabad is the largest city in the north Indian state of Haryana, in Faridabad district. It is a leading industrial center and situated in the National Capital Region (India) near the Indian capital New Delhi. It is located between Delhi, Noida, Greater Noida and Gurgaon. It is surrounded by Delhi to its North, Noida to its North East, Greater Noida to its East and Gurgaon to its West. Faridabad enjoys a prime location both geographically and politically. The river Yamuna forms the eastern district boundary with Uttar Pradesh, Faridabad is also a major industrial hub of Haryana. About 50% of the income tax collected in Haryana is from Faridabad and Gurgaon.

- ◆ Climate: The climate of Farldabad district can be classified as tropical steppe, hot semiarid (Köppen BSh) which is mainly characterized by the extreme dryness of the air except during monsoon months. During three months of south west monsoon from last week of June to September, the moist air of oceanic penetrate into the district and causes high humidity, cloudiness and monsoon rainfall. The period from October to December constitutes post monsoon season. The cold weather season prevails from January to the beginning of March and followed by the hot weather or summer season which prevails up to the last week of June. The normal annual rainfall in Farldabad district is about 542 mm (21.3 in) spread over 27 days. The south west monsoon sets in the last week of June and withdraws towards the end of September and contributes about 85% of the annual rainfall. July and August are the wettest months 15% of the annual rainfall occurs during the non-monsoon months in the wake of thunder storms and western disturbances.
- Population: As per provisional data of 2011 cersus Faridabad had a population of 1,404,653, out of which males were 750,446 and females were 654,207. The literacy rate was 84.88 per cent.

2.3 Forest Cover in Faridabad District

As per India State of Forest Report-2011, Faridabad district has 4.32% area under forest cover against 3.64% of state average. If both area under forest & tree cover is taken together this goes up to 6.80%. Main plant species adopted under CAMPA programme in the district are Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karanj, Kikar, Papri, Pilkhan, Pipal, Shisham, etc.

CHAPTER-3

QUANTITATIVE EVALUATION AND FINDINGS

3.1 Classification of Area Covered/Treated

During 2012-13, a total of 65.66 RKM forestland was treated under CAMPA by adopting Net Present Value (50.0 RKM) and Compensatory Afforestation (15.66 RKM) schemes of plantation. It was implemented in both the ranges of the division i.e. Faridabad and Ballabgarh. Under CA scheme mostly tall plants were drawn from nurseries while under NPV scheme ridge plantation method adopted. Refer table-3.1 for detailed information.

	т.	able 3.1 Area Covered	/Treated Under CAMPA (2012-13)		
SL No.	Range	Land Category	Scheme of Plantation	Areá in RKM	
1.	Baltabgarh	Forestland	FCA (Tall Plant)	0.56	
Ż	Ballabgarh	Forestland	FCA (Tall Plant)	13.24	
Sub-Tot	al Bailabgarh Range	:		13.80	
3.	Faridabad	Forestland	FCA (Tall Plant)	0.14	
4.	Faridabad	Forestland	FCA (Tall Plant)	1.72	
Sub Tat	1.86				
Total (C	(A)	•		15.66	
5.	Faridabad	Forestland	CAMPA/NPV (Ridge Plantation)	50	
Total (N	IPV)		-	50	
		Grand Total	1	65.66	
Other A	ctivities/ Assets up	der CAMPA		•	
Б.	Ballabgarh Forestland Construction of Forest Guard Quarter				

3.2 Physical and Financial Target and Achievements

A sum of Rs 22.6 lakh was the total expenditure of the entire project during 2012-13 against the target of same amount. Altogether assets were created at six places in which plantation work was conducted at five places and construction of forest guard hut/ quarters at one place. Refer table 3.2 for detail information.

	Table-3.2: Physical and Financial Target and Achievements (2012-13)						
SL	Range	JFMC/Village/Site	· Physical (Area in ha)	Financial (Rs. in takh)		
No.	rus i Ma	or Mic/ Fluage/ Site	Target Achievement		Target	Achievement	
1.	Faridabad	R.F. Alipur	50 RKM	50 RKM	IS lakh	16.00	
2.	Faridabad	Gurgaon Feeder 0-12 L&R	0.14 RKM	0.14 RKM	0.005	0.005	
3	Fandabad	Near Sector 13 & 14	1.72 RKM	1.72 RKM	0.6	0.6	
4,	Ballabgarh	Gurgaon Fæeder 50-52 R Side	0.56	0.56	0.2	0.2	
5.	Ballabgarh	Gurgaon Canal RD 0-7 L&R	13.24	13,24	4.8	4.8	
Total 65.66 65.56						· 21.605	
Othe	Other Activities/ Assets Created in the Project						
6.	6. Ballabgath Construction of Forest Guard Quarter 1.0 1.0						
	Grand Total 22.505 22.605						

3.3 Inventory/ List of Plantation

A total of 0.289 lakh plant species of Alstonia, Arjun, Bakain, Balam Khira, Gullar, Karani, Kikar, Papri, Pilkhan, Pipal, Shisham, etc. were planted in the project at five different sites comprising 65.66 RKM of forestland. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

	Table 3.3: Inventory/List of Plantation							
SL No	Range	VMage/JFMC/ Site	Scheme of Plantation	Ares RXM	No. of plants	Name of Plant Species	Year of Plantation	
1	Faridabad	R.F. Alipur	NPV/Ridge	50	25000	Kakar, Shisham		
2	Faridabad	Gurgaon Feeder RDD-12 L&R	CA/TJP.	0.14	35	Kikar, Papri	i I	
3	Faridabad	Sector 13 & 14, Faridabad	· CA/T.P.	1.72	430	Alstonia	2012-13	
4	Ballabgarh	Gurgaon Feeder 50-52	ÇA/T.P.	0.56	140	Papel	5012-13	
5	Baltabgarh	Gorgaon, Canal RD 0-7 L&R	CA/T.P.	13.24	3310	Shisham, Bakam, Papri, Arjun		
Sub Total 65.66 28915								

3.4 Analysis of Plantation and Survival Assessment

In the process of munitoring and evaluation of CAMPA programme of Faridabad Forest.

Division in Faridabad District of Haryana entire plantation area (65.66 RKM) along with all plantation sites and assets created were verified during field visit and to estimate survival percentage of plantation. Four plantation sites belonged to CA/Tall Plantation scheme while one plantation site belonged to NPV/ Ridge plantation scheme. Apart from above activities there was construction of forest guard quarters at one place in Ballabgath range.





 Average survival percentage of seedlings estimated was 65%.
 The survival percentage was highest at R.F. Alipur site/VFC (81%) while it was lowest at
 Gurgaon Canal RD 0.7 L &R forestland site (57%). Average height of plantation was 6 feet.





Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.

	Table 3.4: Analysis of CAMPA Assets and Assessment of site wile Survival							
SL No.	Range	JFMC/Sha	Scheme	Area (ha)	No. of Plants	Plants Survived	Survival (%)	Year
1	Faridabad	R.F. Allpur	Ridge	50	25000	20250	81	
2	Faridabad	Gurgaon Feeder RD 0-12 L&R Side	T.P.	014	35	22	62	
3	Faridabad	Near Sector 13 & 14 Faridabad	T.P.	1.72	430	280	65	2012-13
4	Ballabgarh	Gurgaon Feeder 50-52	T.P.	0.56	140	81	58	
5	Ballabgarh	Gurgeon Canal RD 0-7 L&R	T.P.	13.24	3310	1897	57	
		Total		65.66	28915	22519	65	

3.5 Analysis of Other Activities of the Project

◆ Construction of a two room forest guard hut/quarters with toilet cum bathroom, kitchen and

overhead water tank (500 liters) was started at Pratapgarh Forest Complex of Ballabgarh forest range in the division. However, only Rs. 1 takh was spent during

	Table 3.5: Assets Created under CAMPA (2012-13)						
Sa	Forest	Range	Details of	f Financial (Rs.)			
	Division	NAME OF THE PERSON NAME OF T	Asset Created	Tanget	Achievement		
1.	Farishing	Ballebgarti.	Construction	1 Lakh	1 Lakh		
i		Pretapgarh	of Forest				
		forest complex	Guard Quarter	L			
		Total	1Lakh	1 Lakh			

this financial year (2012-13) and it was completed in the next financial year (2013-14). Refer table 3.5 as given above along with for detail information in this regard. Also see photograph of the pucca but on the right side.



3.5 Registers/Records Maintained_in_the_Project

Important registers maintained by project authority were work register, cashbook, sketch map, etc. Plantation journal was found missing at all the plantation sites covered in the CAMPA project. However, the DFO of the division Ms Renjitha assured us that plantation journal would be prepared very soon for all the plantation sites of CAMPA.

3.7 Monitoring_and_Evaluation_System_Adopted_in_the_Project

♣ The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate wing called M & E Wing. It is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana of Faridabad forest division was conducted in October 2014. The M & E wing consists of one conservator of forest (CF) and two Deputy Conservator of Forest (DCF). Its head office is at Kamal in Haryana quarters. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state.

3.8 Involvement of Independent Agency for Evaluation of CAMPA

The project authority reported that an independent agency named Agricultural Finance Corporation Ltd. based in Delhi carried out last evaluation of CAMPA work for the duration of 2010-11 and 2011-12. It was conducted in 2013 and overall finding of the study was satisfactory.

3.9 Bank Account Details and Flow of Funds.

Bank account of CAMPA Programme of Faridabad forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Faridabad Branch. Apart from this there were two other bank accounts for ranges of the division namely Faridabad Range and Ballabgarh Range. These bank accounts were also with the same Corporation Bank at Faridabad branch. Flow of funds was smooth as reported and information gathered from the stakeholders.

CHAPTER-4

QUALITATIVE ANALYSIS AND FINDINGS

4.1 Preference and Basis of Species Selection

Important factors in the selection of plant species were nature of topography, soil type, climate, rainfall, suitability of species in the area, economic value of plant species, preference shown by local community, etc. However, the project authority took final decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

There was significant improvement in soil moisture conservation at all those places where plantation carried out under CAMPA programme. However, it was reported that due to limited provision of funds on this head of the programme did not provide much options for the project authority to carry forward additional work.

4.3 Assessment of Survival Percentage and Methodology

- After thorough evaluation of the programme the estimated survival percentage of plantation carried out during 2012-13 was 65%. It was highest at R.F. Alipur (81%) while it was lowest at Gurgaon Canal RD 0-7 L&R forestland (57%). Average height of plantation was 6 feet with average to good growth and health.
- A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, counting of plants was followed for survival assessment, information gathered through interviews with various stakeholders of the project, observations and experiences of members of evaluation team, etc. were taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

There was very little natural regeneration of plants in the CAMPA plantation as observed during field inspection. In most part of urban and suburban areas natural regeneration was negligible while on block forest and rural areas there were some glimpses of it due to presence of other species in and around the newly planted saplings.

4.5 Quality of work Observed During Field Visit

Overall quality of work especially plantation and creation of assets in the programme was
found in good shape at majority locations as observed during field inspection. Members of
evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.

4.7 Protection and Maintenance of Plantation and Project Assets

There was barbed wire and bush fencing at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were also adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be provision of better care of plantation through elaborate fencing and protection as observed. The process of awareness raising and motivation of local community should be a regular phenomenon in the project.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

• All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Meetings and interactive programmes were organized from time to time on the initiatives of DFO to update and motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.'

4.9 Role of Local People in Project Work

There was low participation of local community in the Implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Eormation of Self Help Group (SHG) in the Project

• The project authority did not take any effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

CHAPTER-5-

THE CONSTRAINTS AND LIMITATIONS OF PROJECT.

5.0 Project Constraints and Limitations: There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

5.1 Unprotect Grazing by Loose Domestic Animals

U

Open grazing by 'loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area. It led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff During 2012-13 of Project Work

Project authority reported that there was shortage of frontline staff like foresters and forest
guards in the division during 2012-13 of CAMPA programme implementation. However, fresh
recruitment was conducted in the entire state of Haryana to fill the vacant positions and
recently this problem was over. But impacted the programme adversely.

5.3 Low Wage Rate of Forest Department as Compared to Private Sector

• Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.

5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate

Due to high rate of urbanization and industrialization in most part of the project area, there
was high demand of labour force and hence the forest department had to face shortage of
labour. In industrial sector average wage rate per day was Rs, 400-500 while it was Rs, 213
in forest department.

5.5 Inadequate Infrastructure in the Division and Forest Ranges

At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority. It impacted performance and quality of work as well as outcome of project.

5.6 Other Biotic and Natural Factors Impacting Survival of Plantation

Biotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and
porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition,
extreme nature of climate (very high temperature in summer and low in winter), erratic
monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

6.1 Suggestions and Recommendations for improvement: On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

6.1.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals

As discussed above time and again about the menace of grazing in most part of plantation area and hence it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.

6.1.2 Make Proper Arrangement of Protection and Maintenance of Plantation

The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.

6.1.3 Yacant Posts of Frontline Staff Should be Filled on Time

All vacant posts of forest guards and foresters should be fulfilled on time by fresh recrultment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2012-13 of project work.

6.1.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources

There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.

6.1.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills

 Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.

5.1.6 Make Four Years of Protection and Maintenance Funding

There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.



6.1.7 Make Monitoring and Evaluation Regular Systematic and Effective

Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF and two DFOs. It head office is located at Karnal CAMPA programme along with other forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

6.1.8 Intensive Awareness Campaign to Motivate Local Community

There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

6.1.9 Organize Exposure Visit for Staff Member and Local Community

Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality and outcome of the programme.

6.1.10 Introduce Practice and Concept of Earning Carbon Credits

- The concept and practice of carbon credits is part of the global efforts to tackle

 greenhouse warming and rising temperatures. It should be introduced forthwith in the
 project area at village level for environment-related mass participatory programmes.
- Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greaning process in ways other than carbon credits is related option, if a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.2 Interview with Project Authority/DFQ

- Summary of Interviews held with DFO, Ms Renjitha is given below with contact detail. It is as follows:
- a) Ms Renjitha (IFS), DFO, Faridabad Forest Division (T), Faridabad district, Haryana, Mobile No.:+91-8901558515, Landline No.: +91-1292286760.
- The evaluator conducted interaction (pre evaluation/field visit) and interviewed (post evaluation) with DFO. Farldabad (T), Ms Renjitha along with an RFO. A number of issues related to implementation, progress, management and outcome of CAMPA were discussed in great detail. She replied all the queries straight forward and satisfactorily.
- The DFO confidently expressed that overall outcome and progress of CAMPA programme carried out during 2012-13 under Faridabad Forest Division in Faridabad district of Haryana was very good.

- On selection and preference of plant species in the project, the DFO was of the opinion that important factors like topography, soil condition, local climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, etc., were taken into consideration. Most preferred plant species in the project were Papri, Shisham, Kikar, Bakain Anjun, Alstonia, etc.
- With reference to benefits accrued and impact of CAMPA programme, the project authority further said that it generated employment opportunity to members of households who worked and got opportunity to earn additional income. Plantation helped in improving ecology and environment of the area. Construction of forest guard hut/quarter at Pratapgarh forest colony under Ballabgarh forest range had significant impact on forest staff working in the field.
- For betterment in the project outcome, the DFO told that she maintained regular interaction with staff members, monitored their work records and past performance, fixed accountability on the basis of performance, etc. it helped in improving performance of staff and quality of work.
- The project authority also explained that important factors impacting growth and survival of plantation were grazing by domestic animal, Illicit felling of plant, shortage of labour forces, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, low wage rate under forest department, etc.
- Finally the DFO assured the members of evaluation team that plantation journals, which were missing, would be prepared of all the plantation sites carried out under CAMPA during 2012-13.

6.3 Evaluator's Assessment

After field inspection, meeting with DFO, other forest officials, local community and analysis and verification of official records / documents, it was concluded that above statements made by the DFO. Ms Renjitha was true to a great extent. The project authority did a commendable job in the programme at Faridabad forest division. Awareness raising campaigns should be conducted at regular interval by adopting modern tools of mass media for better impact. Monitoring and evaluation work of the programme should be streamlined and conducted effectively at regular interval.

Photographs: Plantation Area and Other Project Assets of Faridabad Division (2012-13)

Site-1: R.F Algur, Range: Fandabed, Scheme: NPV/Ridge, Area: 50 RKM, No. of Plant: 25000 (Kikar, Shisham)

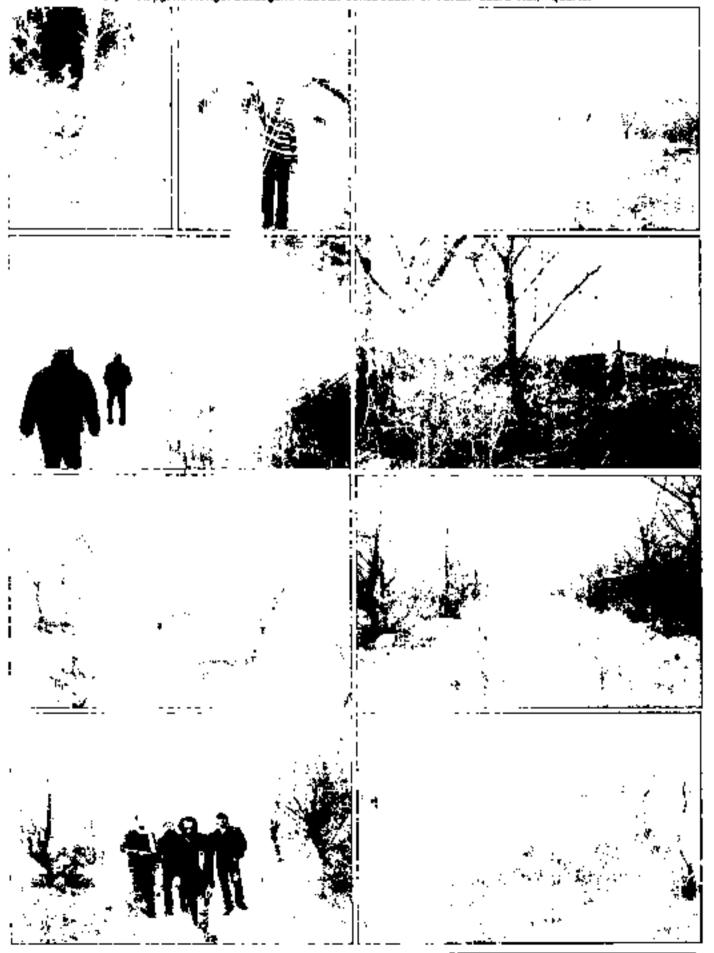
Site-2* Gurgaon Feeder RD 0-12 L&R, Range: Feridabad, Scheme: CATP, Area: 0.14 RKM, No. of Plant: 35 (Kittar, Papri)

Site-3: Sector 13 & 14 Faridabad, Range: Fandabad, Scheme: CA/TP, Area; 1,72 RKM, No. of Plant; 430 (Alatonia)

Site-4 Gurgeon Feeder 50-52, Range: Ballabgeth, Scheme: CA/TP, Aren: 0 56 RKM, No of Plant: 140 (Papri)

Site-6. Gurgaon Canal RD 0-7 L &R, Bicheme: CA/TP, Area: 13.24 RKM, No of Plant: 3310 (Shisham, Bakain, Paon, Arjun)

Site-6: Forest Colony Pratapgarh, Range: Ballabgarh, Assets: Construction of Forest Guard Hut / Quarter

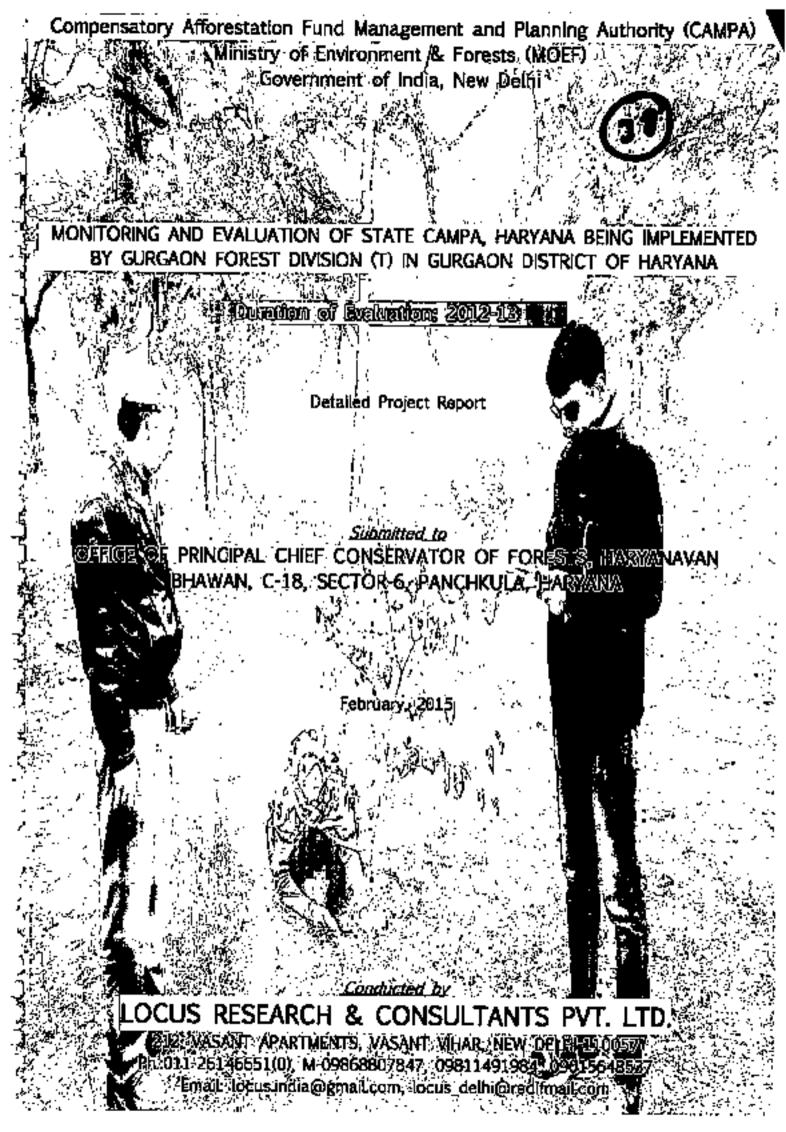




No.	Type of land	Name of Scheme/	Name of Range/	Nama of Site	Khasera No.	No. Month	4	arget hieved	Spacing (m)	Name Of Species	No. of Plants	GPS Coordinates	
	(Forest/Non -forest)	component	Block/Beat		KM/RO		Ha	RKW				Longhude	Latitude
1	2	3	4	5	6	7	8	9	10	11	12	13	14
L	Forestland	FCA (Tall Plant)	Faridabad	R.F. Alipur	X	July		50 RKM	NA	Kikar, Shisham	25000	77°26′25″E	25*27*24*E
2.	Forestiand	FCA (Tall Plant)	Faridabad	Gurgaon Feeder 0-12 L&R	NA	July		0.14 RKM	NA	Kikar, Papri	35	77*20'28.3"E	28°20'15.3°E
3.	Forestland	FCA (Tall Plant)	Faridabad	Near Sector 13 & 14	NA	July		1.72 RKM	NA	Alistonia	430	77*209.8°E	28°2373.1°E
4,	Forestland	FCA (Tall Plant)	Ballabgarh	Gurgaon Feeder 50 52 R Séde	NA	July		0.56	NA	Papri -	140	77"20'27.7"E 77"20'30.5"E 77"20'27.7"E 77"20'30.5"E	28°21'32.2'E 28°21'50.5'E 28°21'32.2'E 28°21'50.5'E
5.	Forestland	NPV (Ridge Plantation)	Ballabgarh	Gurgaon Cartal RD 0- 7 L&R	N A	July		13.24	NA	Shisham, Bakalo, Papri, Arjun	3310	77°20'28.3°E	28-2015.7°E
	Total	<u></u>	·	· · · · · · · ·		<u> </u>] -	6566		·	28915	-	

	Final AP.O. State CAMPA Scheme (2012-13) of Faridabad Forest Division (T) in Faridabad District of Haryana									
51	Item of Work	Sanctioned Amount		Actual Expe	Deviation if Any					
No.	. '	· (Res. In Leakh)	Amount	Quantity	Location/Remark					
			(Rs. in Lakh)							
L	Construction of Forest Guard Hut/Quarter at Pretapgarh in Ballabgarh range	1.0	1.0	1	At Pratapgarh forest colony in Ballabgarh range	Not-Completed in 2012-13				
[Trolet.		10							

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Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Ministry of Environment & Forests (MOEF) Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA, HARYANA BEING IMPLEMENTED BY GURGAON FOREST DIVISION (T) AND WILDLIFE FOREST DIVISION IN GURGAON DISTRICT OF HARYANA

Duration of Evaluation: 2012-13

Draft Final Report

Submitted_to

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Conducted by

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Dinesh K. Singh

Director

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New Delhi, February, 2015



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Preface

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates......a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character. State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1850 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana at Gurgaon by PCCF office on professional terms and conditions. Locus is registered under Companies Act of 1956. Since its Inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

Under CAMPA programme, a total 95.016 RKM forestland was treated along with work initiated on boundary wall, and construction of staff flats during 2012-13. Total expenditure incurred on above activities was Rs. 36.92 lakh against the target of Rs. 79.96 lakh. A total of 23769 plant species of Ailanthus, Alstonia, Amaltas, Arjun, Bakam, Ber, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pilkhan, Pipal, Shisham, Stras, etc. were planted at five sites /VFCs by adopting NPV and CA schemes.

Average survival of seedlings estimated was 63%. The survival percentage was highest at Bhondsi site/VFC (77%) and it was lowest at Kadipur forestland site (51%). Average height of plantation was 6 feet. Average grading awarded to the programme was 6.2 (on a scale of 1 to 10), which was very good.

Members of evaluation team interacted with JFMC local community and forest officials in the process of field inspection of project area. At most places local people were happy with the efforts made by forest department. A Placitation Journal was missing but other project related records were recorded and kept well. Selection of species was made in accordance with local factors and needs of the community. Flow of fund was smooth as reported by the project authority. There was lack of awareness and low sense of responsibility on public and environmental issues among the local people. Overall outcome of the programme was satisfactory.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

February, 2015



, ≱465— Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

ACRONYMS

ACF Assistant Conservator of Forests

Afforestation

APCCF Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee
CF Conservator of Forests

CF Conservator of Forests
CN Compartment Number
CPT Continuous Projection To

CPT Continuous Protection Trench
DCF Deputy Conservator of Forests

DFO Divisional Forest Officer
DG-Forests Director General Forest
DWLO Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Entry Point Activity

FDA Forest Development Agency
FGO Focus Group Discussion
FTC Forest and Tree Cover
GOI Government of India
GPS Global Positioning System

Gurgaon Division (T) Gurgaon Forest Division Territorial

Ha Hectare

JFMC Joint Forest Management Committee

M & E Monitoring & Evaluation
MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme
NGO Non-Government Organization

NPV Not Present Value

NTFP Non-Timber Forest Produce OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

PF Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Kilometer
RO Range Officer
SC Scheduled Castes
SF Social Forestry

SMC Soll & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Vallage Forest Committee

LOCAL NAME AND BOTANICAL NAME OF PLANT SPECIES

SL No.	Common Name	Botanical Name
1.	Alainthus	Alainthus
2	Alstonia '	Indian Mallow/ Devil Tree
3.	Amaltas	Cassia fistula
4.	Arjun	Terminalia arjuna
5.	Bakain	Melia azedarach
6.	Ber	Ziziphus mauritiana
7.	Chakrasia/Indian Redwood	Chukrasia tabularis
8.	Champa	Magnolia champaca
9.	Gulmohar	Delonix regia
10.	Jamun	Syzygium cumini
11.	Kachnar	Baulilnia variegata
12.	Khair	Acacia catechu
13.	Kikar	Acacia Arabica
14.	Lasoda	Cordia Dichotoma
15.	Neem	Azadirecta indica
16.	Papri	Holoptelea integrifolia
17.	Pilkhan	Ficus virens
19.	Pipal	Ficus religiosa
20.	Shisham	Dalbergia sissoo
21.	Siras	Albizzia lebbeck

GRADING AND EXECUTIVE SUMMARY

Page Compensation Afforestation Fund Management and Planning Authority (CAMPA). Haryana

Gurgaon Forest Division in Gurgaon District of Haryana

Average Grading on a Scale of 1 to 10							
Item/Aspect	Value						
Quantitative Aspects	Physical	9					
	Financial	8					
Qualitative Aspects	Survival	6					
	Health of Plantation .	-6					
	Maintenance	6					
	Sustainability	, 5					
JFM/Social Aspects	Degree of Peoples' Participation	5					
	Satisfaction over Perceived Benefits by the Local Population	.5					
Overall Grading (Very Goo	od)	5.2					

Executive Summary

1.0 Introduction

Monitoring and evaluation of State CAMPA, Haryana of Gurgaon Forest Division (T) in Gurgaon district was conducted in the month of January (7-10), 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency. A total 95.016 RKM forestland treated with NPV and CA plantation schemes at 5 places along with creation of two assets during 2012-13. There was 100% coverage of project sites/areas and assets during field visit. Summary of findings of the study is given below.

2.0 CAMPA: An Overview

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Panchkula.

3.0 Objectives of the NAP

- Important objectives of CAMPA are as follows:
 - i. Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - IL Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.

4.0 Geographic Location / Area of Monitoring & Evaluation

It covers Gurgaon Forest Division (Territorial) in Gurgaon district of Haryana.

5.0 Reference Period

The reference period of monitoring & evaluation CAMPA is one year, i.e. 2012-13.

6.0 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any in from the stated guidelines, etc.

7.0 Objectives of the Study

- Main objectives of the monitoring & evaluation are as follows:
 - . To assess physical and financial targets and achievements
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created.
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 Methodology and Sample selection

 Simple random, systematic, stratified and purposive sampling techniques were adopted as per need and interviewing forest officials and community leader, etc. There was cent percent (100%) coverage area and project activities carried out during 2012-13.

9.0 Profile of the Study Area

- The state comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state. As per India State of Forest Report-2011, Gurgaon district has 8.35% area under forest cover.

10.0 Main Findings of the Study

10.1 Quantitative Findings

- 95.016 RKM land forestiand was treated under CAMPA programme by adopting CA scheme at Gurgaon range in Gurgaon forest division (T) during 2013-14. Besides, initiatives were made for creation of assets i.e., boundary wall and staff flats. But they could not be finished in this financial year.
- Total expenditure was Rs. 36.92 lakh on entire project work against the target of Rs. 79.96 lakh during the same period.
- 23769 plant species of Allanthus, Alstonia, Amaitas, Arjun, Bakain, Ber, Chakrasia, Champa, Guimohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pikhan, Pipal, Shisham, Siras, etc. were planted in the project.
- Average survival percentage of seedlings estimated was 63%. The survival percentage was highest at BhondsI site/VFC (77%) and it was lowest at Kadipur forestland site (51%). Average height of plantation was 6 feet. Growth and health of plantation was good. A sample plot of 0.25 ha (50meters50meter) was adopted on block forest area to count saplings at random locations to estimate survival percentage. For row /linear plantation, row counting of plants was followed. Feedbacks through interviews with various

stakeholders of project, observations and experiences of members of evaluation team were also considered to validate and estimate survival percentage.

- Work register, Cash book, Maps, etc. were Importance registers maintained by the project authority.
 Plantation journal was missing but project authority assured us that it would be introduced soon.
- Monitoring and Evaluation (M & E) wing conducts monitoring of CAMPA for once or twice a year on average basis. Last evaluation of CAMPA was carried out in October 2014 for the entire four years of project activity (2010-11 to 2013-14). The headquarters of M & E wing is located at Karnal in Harvana.
- Flow of funds was smooth at all levels as reported by the project authority.

10.2 Qualitative Findings

- Type of soil, climate and natural factors, survival factor and sultability in the in the area, demand/choice put by local community, etc. were main factors in the selection of species.
- CAMPA plantation accrued benefits in conserving soil moisture. The project authority reported that there
 was no provision of additional funds for soil moisture conservation work.
- Natural regeneration of plantation in the CAMPA was negligible. In block forest region there were some glampses of it due to presence of other species in and around the newly planted saplings.
- Overall quality of work was found satisfactory at majority locations as observed during field visit.
- Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soll condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.
- For protection of plantation Barbed wire fencing was very common at all sites along with a few brick/iron/wood gabions in urban and sub-urban areas. Foresters and forest guards were responsible for making regular rounds of plantation area in this regard.
- The project authority was of the view that meetings and interactive programmes were organized at certain intervals on the initiatives of DFO to acquaint, update and motivate forest staffs with necessary information on forestry programmes and CAMPA related issues.
- There was average to low participation of local community in the implementation and protection of the programme.
- CAMPA programme accrued both direct and indirect benefits, it helped in improving quality of ecology and environment benefitting all kinds of flora and fauna. Wage employment during project activity and plantation season also accrued benefits to local people in earning additional income.

11.0 Constraints and Limitations of the Project

- Grazing by domestic animals had adverse impacted survival and growth of plantation, it caused far
 reaching damage to plantations as animals' feet loosen the soil, and has a cascading detrimental effect
 on all saptings planted in the area.
- There was shortage of foresters and forest guards in the division during 2013-14. The programme had adverse impact on quality and outcome due to this during 2013-14.
- Average wage rate of forest department was Rs. 213 per day, which was much low as compared to local industrial establishments and urban areas (Rs. 400-500 per day) causing hardship and Umitation in finding labour force during peak plantation season and project work.
- Due to high rate of urbanization and industrialization, there was high demand of labour force and hence
 the forest department had to face shortage of labour. In industrial sector average wage rate per day
 was Rs. 400-500 while it was Rs. 213 in forest department and hence the forest.

- Range level offices were facing shortage of necessary vehicles for day to day activities as reported by the project authority. It impacts the performance of staff and quality and outcome of project work.
- Main factors impacting growth and survival of plantation were damage caused by wild animals like, rabbits, blue buils and porcupines, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), ematic monsoon rain, rapid urbanization, etc.

12.0 Suggestions and Recommendations

- A viable strategy should be adopted to minimize the menace of grazing by domestic animals in most part of the project area. Wild animals like blue bulls and rabbits also caused damage to plantation. Local community should be motivated to adopt stall feeding to their animals.
- A multi-pronged strategy should be adopted for protection and maintenance of plantation, it was observed that barbed wire fencing was very common at most plantation sites. It is suggested that in urban and suburban areas the project authority should adopt gablons of Iron, brick or wood for better survival and higher outcome.
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure on existing staff.
- A provision of fine /punishment or both should be levied against all persons involved in unprotected grazing and deliberate damage to plantation.
- Workshops and Capacity building programmes should be organized by involving field level forest staffs along with some willing local community to impart skill enhancement and better knowledge.
- There should be regular funding provision for four consecutive years for protection and maintenance of plantation for better outcome.
- Monitoring and evaluation system is critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). The project authority should pay a better attention in this regard to increase its effectiveness.
- Mass madia communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall
 writings, nuikad nataks, slogen shouting, rallies, advertisement in local newspapers, etc. should be
 adopted for awareness for better and long lasting impact among local community.
- Exposure visit and tour programme should be organized for forest staffs to advance nursery and
 plantation areas within the state and outside for better understanding and learning new ideas and
 knowledge. These are important methods of development process.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures in new ways, and it should forthwith be introduced in our country at the village level of environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

CHAPTER-1

PROJECT CONCEPT, STRATEGY, OBJECTIVE AND METHODOLOGY

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, their compensation for the lost forestland is also to be decided by the ministry and the regulators.
- Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.

- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:
 - i. Conservation, protection, regeneration and management of existing forests;
 - ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation;
 - lv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water, and
 - v. Research, training and capacity building,
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Details of Establishment State CAMPA

- The details of establishment of State CAMPA are summarized below :
- a) The State Government may establish the Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - Amount transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV), Catchment Area Treatment Plan or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the Forest (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting Into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The State Government may also credit to the State CAMPA
 - Grants or aid received if any;
 - Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 Establishment of State CAMPA, Haryana

- On March 3, 2010, Haryana Government constituted the State Compensatory Afforestation Fund Management and Planning Authority (STATE CAMPA), Haryana for the purpose of management of funds, it will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.
- State CAMPA, Haryana will have three bodies, namely a Governing Body, a Steering Committee and an Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance). Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-II). Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the State Government for a 'period of two years will be its Members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State Compensatory Afforestation Fund Management and Planning Authority" (CAMPA) is intended as an instrument to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural

regeneration, conservation and protection of forests, infrastructure development, wildlife conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife, its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/orgoing in the State Forest Department.

1.4 Objectives of CAMPA

- Conservation, protection, regeneration and management of existing natural forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- Compensatory afforestation;
- Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
- Science, Research, Training and Capacity Building.
- Environment Protection and Sustainable Forest Management.

1.5 Geographic Location /Area of Monitoring & Evaluation

 The evaluation study covers Gurgaon Forest Division (Territorial) in Gurgaon district of Haryana.

1.6 Reference Period of Monitoring & Evaluation

The reference period of monitoring & evaluation CAMPA is one year, i.e. 2012-13.

1.7 Components of Project

- People's Participation
- ◆ Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
- Monitoring and Evaluation of the programme
- Conservation and protection of forests, infrastructure development, wildlife conservation and protection and related activities.

1.8 Details of Project Implementing Agency and Proposed Activities

 A brief outline of the project agency and programme implementation is given below in table-1.2

Table 1.2: Project Implementing Agency and Proposed Activities of the Programme

		g Agency and Proposed Activities of the Programme
Project Implementing Agency		
District	:	Gurgaon
◆ Forest Division	:	Gurgaon (T)
◆ Forest Circle	:	South Circle, Gurgaon
♦ State	1	Haryana
Project Location		
 Watersheds/Sub-watersheds 	:	NA .
◆ Development Blocks (9)	;	Gurgaon, Farukhnagar, Manesar, Sohna, Damdama, Badrhalpur, Hadey Mandi, Inchapuri and Bhorkalan
◆ Forest Ranges (3)	:	Gurgaon, Sohna and Hailey Mandi but there was no CAMPA work at Hailey Mandi range during 2012-13.
◆ Villages/VFCs/Sites	;	7 (Seven): List attached with chapter-3

Other Development Activities in the Project Area.

There was no implementation any other afforeataron scheme during 2012-13 in CAMPA area. In urban areas some other schemes were implemented. However, developmental activities of line departments were implemented in most part of the CAMPA programme.

Preparation of Micro-plan and Plantation Journal

 There was no requirement of micro-plan as reported and hence not prepared, But plantation journal was also missing. Work register was available and used as plantation journal.

Project Duration	:	2012-13
Project Area and assets created	;	Target and achievements: 95.016 RKM Plantation and creation
		of boundary wall, and construction of staff flats (incomplete)
Project Cost	:	Target: Rs. 79.96 lakh, Achievement/spent: Rs. 36.92 lakh

Proposed Strategies and Salient Features of the Project

- Plantation Scheme: Compensatory Afforestation (CA) and Net Present value (NPV)
- Assets/Infrastructure created under CAMPA: there was no provision for creation assets in the name of EPA in CAMPA as reported. However, apart from Plantation CAMPA programme has wide scope for creation of assets and infrastructure.

1,9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1,10 Scope of the Study

· Scope of study is confined to Gurgaon Forest Division (T) in Gurgaon district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.

1,13 Sample Selection, Size and Distribution

There was 100% coverage of plantation area (95.016 RKM) and other project assets in the process of field visit for monitoring and evaluation of CAMPA, Haryana of Gurgaon forest division and district. Out of five plantation sites four of them belonged to NPV scheme namely Khuntpuri-sector 4&5, Raipur RF, Bhondsi, and Kadipur forest land and one site was under CA scheme namely Wazirabad, Sec.54 Forest Land. Besides, there were two other sites where assets created in the project, i.e. construction of Staff Flats at Om Nagar on Pataudi Road and creation of boundary wall at Kadipur government land.

1.14 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the <u>Project Concept</u>, <u>Strategy Objectives and Methodology</u>.
 - Chapter-2 gives the <u>Profile of the Project Area and its Location</u>
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with <u>Limitations and Constraints of the Project.</u>
 - Chapter-6 provides Suggestions and Recommendations for Improvement.

1.15 Limitations of the Evaluation Study

- It hard to find respondents at both rural and urban areas of project implementation. It impacted collection necessary information.
- Lack of necessary awareness among community about details of CAMPA also impacted collection of necessary information. However, adequate efforts were made by members of evaluation team to minimize these limitations.

CHAPTER-2

PROFILE OF PROJECT AREA

2.1 State Profile

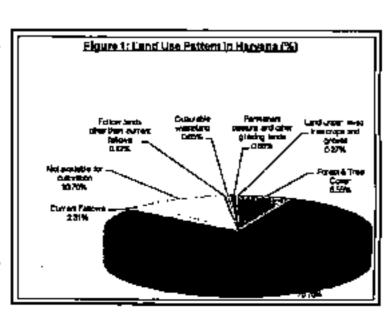
The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state

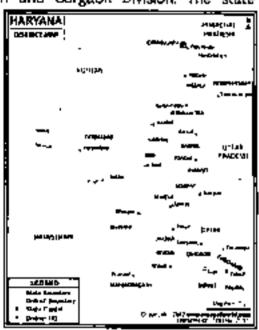
comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6.759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.

- Ambala Division has five (5) districts namely Kaithal,
 Ambala, Panchkula, Kurukshetra, and Yamunanagar.
- Gurgaon Division has six (6) districts namely Palwal,
 Faridabad, Mahendragarh, Gurgaon, Rewarl, and Mewat districts in its jurisdiction.
- While Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Sirsa districts.
- And Rohtak Division has also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonlpat districts in its jurisdiction.

2.1.1 Land Use Pattern of Harvana

- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use patterns about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- Haryana is an agricultural state and 81.80% under about land cultivation/Net sown area followed by not available for cultivation (13.11%). Current fallows (2.40%). Permanent pasture and other grazing lands (0.69%), Culturable wasteland (0.67%). Land under misc, tree crops and groves (0.28%). Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below, Source: Land Use (India State) of Forest Report 2011, FSI Dehra Dun).



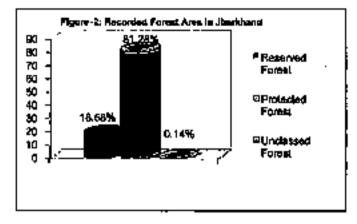


2.1.2Recorded Forest Area in Haryana

The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests

constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.

 An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's



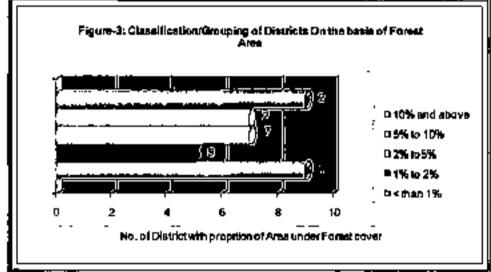
geographical area. The state has taken an initiative in conserving the depleting population of vultures by establishing a conservation center at Phijor. See Figure-2.

2.1.3 <u>District wise Distribution of Forest Area in Haryana</u>

Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group:1: Two districts namely Punchkula (8.35%) and Yamunanagar (10.97%) have more

than 10% area under forest cover.

- Group-2: two districts namely Gurgaon (8.35%) and Mewat (8.35%) fall in the category of 5% to 10% forest cover.
- Group-3: It followed seven districts namely
 Faridabad (4.32%),
 Palwal Bhiwani.



Ambala, Rewari, Mahendragarh and Kaithal fall in the category of 2% to 5% forest cover.

- Group-4: On the other hand 9 districts namely Hisar, Jhajjar, Kamal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat have 1% to 2% geographical area under forest cover.
- Group:5: Fatehabad is the only district which has less than 1% area under forest cover.
 Refer Figure-3 for pictorial understanding.

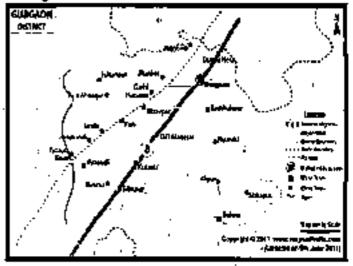
2.2 Profile of Gurgaon District

• Gurgaon is a leading financial and industrial city of India, situated in the National Capital Region near the Indian capital New Delhi in the state of Haryana. It is located 32 km southwest of New Delhi. Gurgaon district has a population of 876,824. Witnessing rapid urbanization, Gurgaon has become the city with the third highest per capita income in India, even though the city grapples with the problem of lack of proper infrastructure and

utilities, frequent power outages and rising crime. Historically known as *Guru Gram*, the city's economic growth story started when the leading Indian automobile manufacturer Maruti

Suzuki India Limited established a manufacturing plant in Gurgaon in the 1970s. Today, Gurgaon is home to about 250 Fortune 500 companies.

The origin of the city's name can be traced back to ancient Hindu scriptures. It is believed that this land was owned by the legendary rulers Pandavas and Kauravas who presented it to Guru Dronacharaya, their royal guru for warfare, as an appreciation of his training. The land came



to be known as *Guru Gram*, which literally translated means "Village of the Guru", which in due course of time got distorted to the name Gurgaon. The village still exists within the modern day city.

- Gurgaon is located in Gurgaon district in the Indian state of Haryana and is situated in the south eastern part of the state, and northern part of the country. The city is located on the border with Delhi with New Delhi to its north east. The city has a total area of 282.7 square miles (738.8 km²). The average land elevation is 711.9 ft (217 m) above sea level.
- Under the Köppen climate classification, Gurgaon experiences monsoon-influenced humid subtropical climate (Cwa). The city experiences four distinct seasons spring, summer, autumn and winter, along with the monsoon season setting in towards the latter half of the summer. Summers, from early April to mid October, are typically very hot and humid, with an average daily June high temperature of 104 °F (40 °C). The season experiences heat indices easily breaking 110 °F (43 °C). Winters are very cold and foggy with few sunny days, and with a December daytime average of 37.4 °F (3 °C). The Western Disturbance brings some rain in winters that further add to the chill. Spring and autumn are mild and pleasant seasons with low humidity. The monsoon season usually starts in the first week of July and continues till August. Thunderstorms are not uncommon during the Monsoon. The average annual rainfall is approximately 28.1 inches (714 mm).

2.3 Forest Cover in Gurgaon_District

4 As per India State of Forest Report-2011, Gurgaon district has 8.35% area under forest cover against 3.64% (6.80% both forest & tree cover) of state average. Main plant species adopted under CAMPA programme in the district are Allambus, Alstonia, Amaitas, Anjun, Bakain, Ber, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pilkhan, Pipal, Shisham, Siras, etc.

CHAPTER-3

QUANTITATIVE EVALUATION AND FINDINGS

3.1 Classification of Area Covered/Treated

• During 2012-13, a total 95.016 RKM forestland was treated by adopting plantation scheme of Net Present value (NPV-4 sites) and Compensatory Afforestation (CA-one site) at 5 paces of Sohna and Gurgaon forest ranges. Funds also allocated for creation of two assets namely construction of flats for staff and boundary wall. Refer table-3.1 as given below.

	Table 3.1 Area Covered/Treated Under CAMPA									
27	Land Category	Scheme of Plantation	Area in RKM.	Year						
1.	Reserve Forest	State CAMPA (NPV)	20							
2,	Compact	State CAMPA (NPV)	7							
3.	Compact	State CAMPA (NPV)	1							
4.	Forest U/S 38	State CAMPA (NPV)	16	2012-13						
5.	Sec. 4&5 Gurgaon	Compensatory Afforstation (CA)	بحبسسا 51.016	2015-13						
6	Construction of Staff Flat	s in Om Nagar and Pataudi Road	· -							
7.	Boundary Wall of Kadipui									
		95.016								

3.2 Physical and Financial Targets and Achievements

A sum of Rs. 36.92 lakh was spent on the entire CAMPA project work during 2012-13 against the target of Rs 79.96 lakh. On plantation work at five places total expenditure made was Rs.34.53 lakh while Rs. 2.39 lakh was spent on other assets (Construction of Staff Flats at Om Nagar on Pataudi Road and boundary Wall at Kadipur Govt land) against the target of Rs.45.25 lath. These assets were. But the assets were not completed in this financial year. Refer table 3.2 for detail information about expenditure as given below:

	Table 3.2 Physical and Financial Target and Achievements of CAMPA (2012-2013)										
SL.	Range	Range JFMC/Village/Site Physical				cial					
Ng,			(Area In	ha/RKMJ)	On Rug	ees)					
			Terget	Achievement /	Target	Achievement					
. 1.	Sohna	Khuntpurl	51,016	51.016	1887370	1268920					
2.	Sohna	Ralpur RF	20	20 1/	720000	720000					
3.	Sohna	3hondsi	16	15 /	57 600 0	576000					
4.	Gurgaen	Kadipur forest land	7	7.	252000	252000					
5.	Curgaon	Wazirabad, Sec.54 Forestland	. 1	1 -	36000	36000					
		Total	95.016	95,016	3471370	3452920					
5.	Gurgaon	Construction of Staff Flats in (Om Magar and Pa	taudi Road	1000000	239409					
7.	Gurgaon	Boundary Wall of Kadepur Gove	3525000	00							
		Grand Total	95.016	95,016	7996370	3692329					

3.3 Inventory/List_of_Plantation

A total 23769 plant species was planted on 95,016 RKM forestland at five sites/VFCs in two ranges by adopting NPV (4 sites) and CA (1 site) schemes of plantation Main plant species adopted were Allanthus, Alstonia, Amaltas, Arjun, Bakain, Ber, Chakrasia, Champa, Gulmohar, Jamun, Kachnar, Khair, Kikar, Lasoda, Neem, Papri, Pilithan, Pipal, Shisham, Siras, etc. Rangewise, year vise, scheme wise and area wise list of plantation is given below in Table 3.3.

Monitoring & Evaluation of State CAMPA Haryana being implemented by Gurgaon Forest Division in Gurgaon District (2012-13)

		_	lable-3.3: List	of JFMCs,	/Plantatio	1 Treated in the Project	
я	Range	Village/JFMC	Schame of	Area In	No. of	Name of Plants Species	Year of
No.		/Site	Plantation	RKM,	Plants		Plantation
Ŀ	Sohna	Khumtpuri,	NPV	51,D15	12769	P. Papri (10000). Bakain (500), Jamun (500)	
		Sec. 485				Lasoda (1769)	
2	Sohna	Rzúpur RF	NPV	20	5000	P.Papri (2500), B.Papri (2500)	1
3.	Sohna	Bhondsl	NPV	16	4000	P. Papn (2000), Khair (2000)	1
ą.	Gurgaon	Kadipur	NPV	7	1750	Jamun (50), Papa (421), Alaimhus (5)	
		forest land		i		Gulmohar (400) Kikar (550) Champa (250) Kachnar (7), Chakrasia (60), Ber (2), Pipel (5)	2012-13
5.	Gurgaon	Wazurabad,	CA	1	250	Jamun (30), Neem (50), Shisham (50).	
]	CO BACH	Sec.54 Forest		٠ ١	~~	Alatonia (50), Arjun (20) and Bakain (50)	
		Land		ļ			
\vdash		Sub-Total		95.016	23759	,	1

3.4 Analysis and Assessment of Survival Percentage of Plantation

◆ The entire plantation area (95.016 RKM) and other project assets were covered in the field visit for monitoring and evaluation of CAMPA, Haryana at Gurgaon. Out of five plantation









sites four sites belonged to NPV scheme namely Khuntpurl-sec. 48.5, Rafpur RF, Bhondsl, and Kadipur forest land and one site was under CA scheme namely Wazirabad, Sec.54 Forest Land.

 Average survival percentage of seedlings estimated was 63%. The survival percentage was highest at BhondsI site/VFC (77%) and it was lowest at Kadipur forestland site (51%).
 Average height of plantation was 6 feet. Growth and health of plantation was good. Refertable 3.4 for further information along with photographs.

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	Table 3.4 List of Sample Villages/JFMCs/Plantation Sites and Survival Estimation											
SI.	Range	Site/VFC	Scheme	Artes (RKM)	No. of Plants	Plants Survived	Survival (%)	Year				
1.	Sohne	Khuntpuri, Sec. 48-5	看老	51.016	12759	5895	54					
2.	Sphna	Refer RF	ΛĀN	æ	5000	3450	69					
3.	Sohna	Bhondsl	NPV	16	4000	3080	77,					
4	Guitgaon	Kadipur (orest land	NPY	7	1750	893	(51)	2012-13				
5	Gurgaon	Wazirabad, Sec.54	-CA/	1 ~	250		_					
		Forest Land	_			168	67					
	-	Sub-Total	95.016	23769	14486	63						

3.5 Other Activities / Assets Created in the Project

 Through CAMPAprogramme Initiatives were taken for the creation of two assets at Gurgaon forest range of Gurgaon division namely boundary wall at Kadipur and construction



	Details of Assets Created under CAMPA (2012-13)											
	Formal		Details of	Financial (Rs.)								
51.	Distalon	Range	Asset. Created	Target	Actions ment							
1	Gurgaon (T)	Gurgaon	Construction of Soulf Flats	1000000	239409							
2	Gungation (TI)	Gungson	Boundary Weak of Kadipur,	3525000	B							
			4525000	239409								

of staff flats at Om Nagar and Pataudi road. However, both of them were not completed in this financial year (2012-13). Details of them are given above in tabular form.

3.6 List of important Registers/Records Maintained and Available in the Project

Importance register/ Records maintained by the project authority were work register, Cash book, Maps, etc. Plantation Journal/register was missing. However, the project authority assured us that it would be taken care very soon for all the plantation sites in the project.

3.7 Process of Monitoring and Evaluation of Project

Monitoring and Evaluation (M & E) of CAMPA is carried out by M & E wing average once or twice a year. Last evaluation of CAMPA was carried out in October 2014 for the entire four years of project activity (2010-11 to 2013-14). The headquarters of M & E wing is located at Kamal in Haryana. It consists of one conservator of forest (CF) and two Deputy Conservator of Forest (DCF). M & E wing conducts monitoring & evaluation of all forestry programmes being implemented in the district comprising two forest divisions.

38 Role of Independent Agency in Evaluation Process of CAMPA

It was reported that an independent agency named Agricultural Finance Corporation Ltd. of New Delhi carried out monitoring & evaluation of CAMPA programme for the duration of 2011-12 and final reports of all the districts were submitted in 2013. An overall finding of the study was good.

3.9 Flow of Funds and Bank Accounts Details

Bank account of CAMPA Programme was in the Name of Divisional Forest Officer at Corporation Bank with saving A/C No.: 044900101023499 at Gurgaon Branch. Apart from this there were three other bank accounts (one each) at range level (Gurgaon, Sohna, and Hailey Mandi-Pataudi). It is operated by chairman from a Village Forest Committee (VFC) who might be a Sarpanch or Deputy Sarpanch and member secretary, a Range Forest Officer (RFO). These bank accounts existed with a nearest available branch of any bank from a range forest office. Flow of funds was smooth at all levels as reported by the project authority.

CHAPTER-4

QUALITATIVE ANALYSIS AND FINDINGS

4.1 Preference and Basis of Species Selection

Main factors considered in the selection/choice of plant species were type of soil, climate and natural factors prevailing in the area, suitability in the in the area economic value benefitting local people, demand/choice put by local community, etc. However, the project authority took the final call in this regard after taking into account of above factors.

4.2 Status of Soil and Moisture Conservation

• It was observed that plantation conducted under CAMPA accrued benefits in conserving soil moisture. It was average in most part of project area. However, the project authority reported that there was no provision of additional funds for soil moisture conservation work.

4.3 Assessment of Survival Percentage of Plantation and Methodology Adopted

- Average estimated survival percentage of seedlings planted during 2012-14 was 63%. The survival percentage was highest at Bhondsi site/VFC (77%) and it was lowest at Kadipur forestland site (51%). Average height of plantation was 6 feet. Growth and health of plantation was also very good.
- A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random locations to estimate survival percentage. For row /linear plantation, row counting of plants was followed. Feedbacks through interviews with various stakeholders of project, observations and experiences of members of evaluation team were also considered to validate and estimate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

There was very little natural regeneration of plants in the CAMPA plantation as observed during field inspection. In most part of urban and suburban areas natural regeneration was negligible while on block forest and rural areas there were some glimpses of it due to presence of other species in and around the newly planted saplings.

4.5 Quality of work as Observed during Field Visit

 Overall quality of work of plantation and assets created by CAMPA was found satisfactory at majority locations as observed during field visit. A thorough inspection of all the project sites was conducted by members of evaluation team in this regard.

4.6 Factors Affecting Growth and Survival Percentage of Plantation

Important factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, rapid urban sprawl, etc.

4.7 Protection and Maintenance of Plantation and Project Assets

Barbed wire fencing was adopted at all the plantation sites for protection of plantation along with a few brick/ iron/wood gablons in urban and sub-urban areas. Forest staff especially foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance, it was observed that in urban part there should additional care and provision of fencing and protection. There is need to motivate community people in this regard.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

Most of the forest staffs working in the field such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle the necessary requirements while dealing with various aspects of forestry programmes. But even daily wages or temporary staffs, watchers, etc. should also be imparted necessary skill to deal with new challenges of the programme. The project authority was of the view that meetings and interactive programmes are organized at certain intervals on the initiatives of DFO to acquaint, update and motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project

There was average to low participation of local community in the implementation and protection of the programme. Among target project sites and VFC forest officials maintained interaction from time to time. But it was not adequate, interaction, meetings and awareness raising programmes with local community should be a regular phenomenon of such programmes for sustainable development and better outcome of the programme. Modern tools of mass media should be adopted in the awareness and motivation of community to catch their attention and its long lasting impact.

4.10 Banafits and Impact of the Programme

CAMPA programme accrued both direct and indirect benefits. Plantation helped in bringing additional geographical area under plantation and forest cover resulting into extra availability of fuel-wood and fodder along with other forest produces, it helped in improving quality of ecology and environment as well as micro-climate of the area, benefitting all kinds of flora and fauna. Part-time wage employment during project activity and plantation season also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project Area

Presently, there was not any effort initiated by the project authority in direction of of SHG formation under CAMPA programme. It was reported that CAMPA did not have any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT

The project authority faced a number of natural and anthropogenic constraints and limitations in programme implementation, protection and management, which impacted the performance. Some of the most notable constraints and limitations of the project are discussed below.

5.1 Uncontrolled Grazing by Loose Domestic Animals in most part of Project Area

Grazing impacted survival and growth of plantation adversely. It was a common problem in most part of the project area. Unprotected grazing caused far reaching damage to plantations: the animals' feet loosen the soil, and has a cascading detrimental effect on all saplings planted in the area. It led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff during Programme Implementation (2013-14)

It was reported that there was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation, However, recently freshrecruitment was conducted in the entire state of Haryana to fill the vacant positions and now it was normal capacity was okay. But the programme had adverse impact on quality and outcome due to shortage of staffs during 2012-13.

5.3 Low wage Rate of Forest Department as compared to industrial sector.

Wage rate of forest department (average Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (Rs. 400-500 per day) causing hardship and limitation in finding labour force during peak plantation season and project work. It adversely impacted quality and outcome of the programme.

5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate

Due to high rate of urbanization and industrialization in most part of the project area, there was high demand of labour force and hence the forest department had to face shortage of labour. In industrial sector average wage rate per day was Rs. 400-500 while it was Rs. 213 in forest department.

5.5 Lack of infrastructure in the Division and Range Level Offices

At division level there was no problem of basic infrastructure including vehicle but range level offices were facing shortage of necessary vehicles for day to day activities as reported by the project authority. It impacts the performance of staff and quality and outcome of project work.

5.6 Growth and Survival of Plantation Faced severe heating due to several Factors

Important factors having adverse impact on growth and survival of plantation were damage caused by wild animals like, rabbits, blue bulls and porcupines, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic monsoon rain, rapid urbanization, etc.

«CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

Based on the foregoing description, analysis and assessment of the CAMPA programme and interaction and interviews held with forest officials, the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

6.1 Suggestions and Recommendations

6.1.1 Control on Grazing by Domestic cattle and Wild Animals

The project authority should adopt a viable strategy to check or at least minimize the menace of rampant grazing by domestic animals in most part of the project area. Wild animals like blue bulls and rabbits in some part of project areas also caused damage to plantation. Local community should be motivated to adopt stall feeding to their animals.

6.1.2 Make Elaborate Arrangement for Protection and Maintenance of Plantation

There should be a suitable provision of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing of barbed wire should be adopted as per requirement to certain locations and type of plantation. It was observed that barbed wire fencing was very common at most plantation sites, it is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick or wood for better survival and higher outcome.

6.1.3 Fill all Vacant Posts of Frontline Staff on time through Proper Recruitment Process

 All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure on existing staff. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was felt badly during 2013-14 of project work.

6.1.4 Make a Provision of fine /punishment against Damage of Forest Wealth

A provision of fine /punishment or both should be levied against all persons involved in unprotected grazing and deliberate damage to plantation. Such punishments or fines could work as deterrent among the local community. However, the project authority said that such provisions are present and adopted when required as per the forest rules and guidelines.

6.1.5 Run a capacity-building Programme to Impart knowledge and hone skills

 Workshops and Capacity building programmes should be organized by involving field level forest staffs along with some willing local community to impart skill enhancement and better knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.

6.1.6 Make the Protection and Maintenance funding for Four Years

There should be regular funding provision for four consecutive years for protection and maintenance of plantation for better outcome.

5.1.7 Regular, systematic and Effective Monitoring and Evaluation System

Monitoring and evaluation is critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department was based in Karnal comprising tone CF and two DFOs who take care of this work for the entire forestry programme. The entire plantation programmes and related work were monitored and evaluated once a year. The project authority should pay a better attention in this regard to increase its effectiveness.

6.1.8 Run an Intensive Awareness Campaign to Motivate Local Community

It must be noted that for better awareness there should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad-natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

6.1.9 Make a Provision of Exposure Visit to Staff member and Opinion Leaders

↑ There should be provision of exposure visits of forest staffs to advance nursery and plantation areas within the state and outside for better understanding and learning new ideas and knowledge. These are important methods of development process.

6.1.10 Introduce the Concept and Practice of Carbon Credits

The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures in new ways, and it should forthwith be introduced in our country at the village level of environment related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option, if a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.2 Interview with Project Authority

- Summary of Interviews with Project Authority with Contact Details
- a) Ms Vasvi Tyagi (IFS), DFO, Gurgaon Forest Division (T), Gurgaon district, Haryana, Mobile No.:+91-8860450860, Landline (Off.) No.: +91-1242322057
- Post evaluation and finishing field inspection of entire project area, the evaluator interviewed the DFO, Gurgaon (T). Ms Vasvi Tyagi along with RFOs and foresters. We discussed issues related to CAMPA implementation, its progress, management and overall outcome. The DFO replied our queries satisfactorily.

- Project authority expressed confidence and satisfaction on overall outcome and progress of CAMPA programme during 2012-13 of Gurgaon Forest Division (T) in Gurgaon district. With regard to selection/ choice of plant species the project authority was of the view that factors like topography and soil, climatic condition, survival factor, biotic factor, low damage due to grazing, preference of local people, etc. were main factors in this regard. Most preferred plant species under CAMPA were Papri, Amaltas, Kachnar, Amaltas, Pilkhan, Bakain, Guimohar, Neem, Shisham, etc.
- ◆ To ensure better outcome in the project the DFO and other officials maintained regular interaction with staff members, monitored their previous records of work, fixed the accountability on the basis of performance, etc.
- With regard to benefits and impact of CAMPA programme the project authority said that it generated employment opportunity to all those members of households who worked as daily wage workers for earning additional income. The plantation of CAMPA helped in improving ecology and environment of the area. Construction of forest guard hut/quarter at Pratapgarh forest colony under Ballabgarh forest range had significant impact on forest staff.
- The DFO further said that main reasons of plant casualty were open grazing by loose domestic animal, Illicit felling of plant, shortage of labour forces, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), orratic nature of monsoon rain, rapid urban sprawl, etc.
- On adopting the provision of fine /punishment against wrong indulgence and causing damage to project assets including open grazing by domestic cattle, the project authority said that existing Forest Acts were adopted whenever required.

6.3 Evaluator's Assessment

After field inspection, meeting with forest officials, local community and verification of records / documents, it was concluded that above statements made by DFO, Gurgaon (T) Ms Vasvi Tyagi was true to a large extent. The project authority carried out good work under CAMPA programme at Gurgaon forest division. Awareness raising campaigns should be a regular activity in the programme by adopting modern tools of mass media for better impact higher motivation. Monitoring and evaluation work should be streamlined and carried out effectively at regular interval.

Photographs: Plantation Area and Project Assets of Sohna Range and Gurgaon Range

Plantation Sites:1 Raipur RF, Scheme: NPV, Year: 2012-13, Area: 20Rkm linear both sites of road. No. of Plants: 5000 (P. Papri-2500 and B. Papri-2500). Plantation Sites:2. Bhonsi (Forest L/S 38), Scheme: NPV, Year: 2012-13, Area: 16RKM linear both sites of road. No. of Plants: 4000 (P. Papri-2000 and Khairi-2000). Plantation Sites:3. Khuntpuri, Scheme: CA. Year: 2012-13, Area: 51.018 RKM, No. of Plants: 12789 (P. Papri-10000 and Beken-500, Jamun-500, Lescota-1789).

Plantation Sites:4 Kedlpur, Forestland, Scheme: NPV, Year: 2012-13, Area: 7RKM, No. of Plants: 1750 Kikar (550), Papri (421), Gulmohar (400), Champa (250), Ehakrasia (60), Jamun (50), Kachnar (7), Pipal (5), Allanthus (5), and Ber (2)

Plantation Sites: §. Sec.-45, Forestland, Schema: NPV, Year: 2012-13, Area: (RKM, No. of Plants: 250- Alstonia (50), Neem (50), Bakain (50), Shisham (50), Jamun (30), Arjun (20)



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	Final AP.O. State CAMPA Scheme for 2012-13 of Gurgaon Forest Division-T in Gurgaon district												
SL No	Type of land (Forest/Non-	Name of Scheme/	Name of Range/	Name of Site	Khasra No.	Plantation Month	At	arget hieved	Spacing (m)	Name Of Species	No. of Plants	GPS Coo	rdinates
<u> </u>	(crest)	component	Block/Beat	_	KM/RD		Ha	RKM				Longitude	Latitude
1	2	3	4	5	6	7	8	9 _	10	11	12	13	14
l.	Reserved Forest	State CAMPA (NPV)	Sohna/ Sohna/ Raipur	Rauipur RUF	ł	July 2012	a	20	4x4	P.Papri (2500) B. Papri (2500)	5000	` N 284 013558	E77* 03728
2.	Compact	State CAMPA (NPV)	Gurgaon/ Gurgaon/ Gurgaon	Kadipur Forestland	-	July 2012			4x4	Kikar (550), Papri (421), Gulmobar (400), Champa (250), Chakrasia (60), Jamun (50), Kechnar (7), Pipal (5), Atlanthus (5), and Ber (2)	1750	N 28° 36536	E 76* 59526
3.	Compact	Skale CAMPA (NPV)	Gurgaon/ Gurgaon/ Gurgaon	Sector-45 Forestland	-	July 2012	Ċ	1	4x4	Alstonia (50), Neem (50), Bakain (50), Shisham (50), Jamun (30), Arjun (20)	250	N 28° 13558	6 077° - 03728
4,	Forest U/S 38	State CAMPA (NPV)	Sohna/ Badshahpur/ Bhondsi	Bhondaí	-	July 2012	0	16	4x4	P.Papri (2000), Khair (2000)	4000	77° 04327	28* 36309
5.	NA .	CA THE	Sohna/ Damdame Silani	Khontpuri	_	July 2012	a	51.01 <u>6</u>	3x3	P.Papri (10000), Lasode (1769), Bekain (500), and Jamun (500)	12769	77, 11, 12, 32	28. 12, 41, 11
	Total			-			_	95.016		ı	23769	-	-

	Final A.P.O. State CAMPA Scheme for 2012-13 of Gurgaon Forest Division-T in Gurgaon District							
SL	Itam of Work	Sanctioned		Actual Ex	Deviation if Any			
No.		Amount Rs.	Amount	Quantity	Location/Remark			
1.	Construction of Staff Flats in Om Nagar on Pataudi Road-CA	1000000	239409	1	Om Nagar, Gurgaon	Not Completed in 2012-13		
2	Boundary Well of Kedipur Govi. Land-CA -	3225000	00	1	Kadipur, Gurgaon	Work not started in 2012-13		
	Total	4225000	239409 .	2		-		

Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENT BY MAHENDRAGARA EOREST DIVISION IN MAHENDRAGARH DISTRICT OF HARVANA

Duration of Evaluation: 2012-13

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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY MAHENDRAGARH FOREST DIVISION IN MAHENDRAGARH DISTRICT OF HARYANA

Duration of Evaluation: 2012-13

Final Report

DEFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA

VAN BHAWAN C-18, SECTOR-6, PANCHKULA, HARYANA

April, 2015

Conducted_by

LOCUS RESEARCH & CONSULTANTS PVT PETDS

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Mahendragarh Forest Division in Mahendragarh District of Haryana (2012-13)" was successfully completed. However, it would not have been possible without the kind support of many individuals and organizations working and associated with Locus Research & Consultants Pvt. Ltd. I would like to extending sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal and other officials at PCCF office especially DCF, Mr. Garg, Mr. Hembram along with office staff Mr. D.P. Tyagi for reposing faith and awarding the honour of Monitoring & Evaluation of State CAMPA Haryana to Locus Researchill & Consultants Pvt. Ltd., a Delhi based professional agency.

also express my thanks to DFO, Markelf-Forest Division, Mr. Ved Prakash along with RFOs and other forest staffs, My interaction with them helped in understanding different aspects of CAMPA implementation and its progress during 2012-13.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt, Ltd. I am highly indebted to Mr. IBKP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Dinesti K. Singh

Director
Locus Research & Consultants Pvt. Ltd.
New Delhi, April, 2015



Locus Research & Consultants Pvt. Ltd. 212, Vasant Apartments, Vasant Vibar New Delhi-110057

Preface

Mahendragath Forest Division-2012-130

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates, i.e. a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA to resolve based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds, it will be registered as a Society by the State Government under the Societies Registration Act, 1850 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana implemented by Mahendragrh Forest Division by PCCF office on professional terms and condition, Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

During 2013-13 a total 92.68 RKM/ha (67.68 RKM and 26 ha) land was treated under CAMPA by adopting CA CAMPA-ANR and CAMPA urban. Rs. 14.97 lakh was spent against the target of Rs. 71.23un the entire project activity. A total of 0.219 lakh plant species of *Papni, Neem Shisham, Bakain*, etc. were planted in the project at 15 sites.

Average survival percentage of seedlings estimated was 68%. The survival percentage was 72% at RF Duloth under Mahendragarh range. Average height of plantation was 6 feet. Growth and health of plantation was good. Average grading awarded to the programme was 6.5 (on 1 to 10 scale), which was very good.

In the process of evaluation, members of evaluation team interacted with field level forest staff and local community. At most places local people were happy with the efforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species, was made in accordance with local factors and needs of the community. Flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

April, 2015

Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

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/	ACTONIVIE
11	ACRONYM5
ACF	Assistant Conservator of Forests
Affo	Afforestation
APCCF	Additional Principal Chief Conservation of Forests
APOs	Annual Plan of Operations
AR	Artificial Regeneration
CA	Compensatory Afforestation
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CCF	Chief Conservator of Forests
· CEC	Central Empowered Committee
ĊF	Conservator of Forests
CN	Compartment Number
CPT	Continuous Protection Trench
DÇF	Deputy Conservator of Foresis
DFO	Divisional Forest Officer
DG-Forests	Director General Forest
DWLO (Divisional Wild Life Officer
ENF	Establishment of Natural <u>Fore</u> st
EPA :	Entry Point Activity
FDA .	Forest Devalopment-Agency
FGD	Focus Group Discussion
FTC	[Forest and Tree Cover
GOI :	Sovernment of Infold
CPS	Capel Positioning System
Ha : '	Heclare :
JFMC I.	Joint-Forest Management Committee
M&E	
MFP MOEF	Minor Forest Produce
MAEB	Ministry of Environment & Forests
NARES NAR	National Afforestation & Eco-Development Board National Afforestation Programme
NCH NCH	National Afforestation Programme Name at Cheudhary
NGO	Nangal Chaudhary Non-Government Organization
NEV NEW	Non-bovernment Organization Net Present Value
NTEP	Nex Present Value Non-Timber Forest Produce
OBC	Other Backward Castes
PCCF	Principal Chief Conservator of Forests
PF	Protected Forest
PRA	Participatory Rural Appraisal
ROF	Rehabilitation of Degraded Forest
RED	Research and Evaluation Division
RF	Reserved Forest
RFO	Range Forest Officer
rkim	Row Kilometer
RQ	Range Officer '
SC	Scheduled Castes
\$F	Social Forestry
SMC	Soil & Moisture Conservation
ST	Scheduled Tribes
TOR	Terms of Reference
LIF.	Un-class Forest
VFC	Village Forest Committee
/ I	, and the second se

Local Name and Botanical Name of Plant Species

SL. Na.	Common Name	Botanical Name
1.	Arjun	Terminalia arjuna
2.	B akain	Melia azedarach
3.	Jamun	Terminalia arjuna
4.	Neem	Azadirecta indica
5.	Papri	Holoptelea integrifolia
6.	Pipal	Ficus religiosa
7.	Shisham	Dalbergia sissoo

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2012-13

	Average Grading on a Scale of 1 to 10				
Item/Aspect	Project Components	Value			
Quantitative Aspects	Physical	9			
,	Financial	8			
Qualitative Aspects	Survival	7			
•	Health of Plantation	6			
	Maintenance	. 6			
	Sustainability	6			
JFM/Social Aspects	Degree of Peoples' Participation				
	Satisfaction over Perceived Benefits by the Local Population				
Overall Grading (Very Goo		6.5			

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of CAMPA programme of Mahendragarh Forest Division in Mahendragarh district was conducted in the month of April 25-29, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based agency. 92.68 RKM/ha (67.58-RKM and 25 ha) forestland was treated under CAMPA by adopting CA, CAMPA-ANR and CAMPA-Urban schemes of plantation during 2012-13. A sample of 68.60% (63.58 RKM/ha) was drawn for field inspection of plantation area and other assets of the project and to estimate survival percentage.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court Issued orders that there would be a CAMPA as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Penchlouia.

3.0 OBJECTIVES OF THE CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - iii. Compensatory afforestation;
 - iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION / AREA OF MONITORING & EVALUATION

The study covered the elentire Mahendragerh Forest Division in Mahendragerh district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2012-13.

6.0 KEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purposive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. A sample of 68,60% (63,58 RKM/ha) was drawn during field visit of plantation area to estimate survival percentage of plantation. Sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saptings at random location to estimate survival percentage. Row counting of plants was adopted.

9.6 PROFILE OF THE STUDY AREA

- Haryana was created on November 1, 1966 with seven districts. Subsequently 14 other districts were included through restructuring the previous ones. Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use pattern about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- Mahendragerh district is situated in the south western comer of Haryana. It is located at 28.28°N 76.15°E. According to India State of Forest Report-2011, Mahendragerh district has 3.82% area under forest cover against 3.64% of state average. Main plant species found and adopted under CAMPA programme in the district were Papri, Bakain, Shisham, Arjun, Kikar, Neem, Pipal, etc.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- 92.68 RKM/ha (67.68-RKM and 25 ha) forestiend was treated under CAMPA by adopting CA, CAMPA-ANR and CAMPA-Urban schemes of plantation during 2012-13.
- Rs. 14.97 Jakh was spent on project during 2012-13 against the target of Rs. 71.23.
- 0.219 lakh plant species of Papri, Neem Shisham, Baliain, etc. were planted in the project at 15 sites.
- Average survival percentage of seedlings estimated was 68%. The survival percentage was 72% at RF Duloth under Mahendragerh range while it was only 64% at Amarapur to Thanwas Rozad under NCH range. Average height of plantation was 6 feet.

- Two types of registers were maintained namely cashbook and work book. DFO said that plantation journal would be prepared soon for all the plantation sites.
- Monitoring and Evaluation (M & E) of CAMPA along with other forestry programmes are conducted by a separate wing called M & E Wing. The last evaluation of state CAMPA Haryana of Mahendragarh Forest Division was conducted in October 2014. It consists of one CF and two DCFs. Its head office is at Karnal in Haryana.
- An independent agency called Agricultural Finance Corporation 1td. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.
- Bank account of CAMPA Programme of Mahendragarh forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Mahendragarh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Factors impacting choice of species were topography, soil type, climate, rainfall, suitability in the area, economic value, preference by locals, etc. Project authority called the final shot in this regard.
- Improvement in soil moisture conservation was observed at most plantation sites of CAMPA.
- Umited natural regeneration of plant species in the plantation area was found. In urban and suburban
 zone it was negligible while on block forestland there were some glimpses of it.
- Quality of Work in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.
- Open and rash grazing by loose domestic animals, wild animals like, rabbits, blue built and porcupine, destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. impacted Growth and Survival of Plantation
- Foresters and forest guards were responsible for making regular rounds of plantation area in the process
 of protection and maintenance. Barbed wire and bush fencing were found at most plantation sites under
 protection of plantation. In urban areas brick/iron/wood gablens were also adopted along with barbed.
- Motivation and Technical Competence of Personnel Involved in the Project was found satisfactory. Range
 Forest Officers (RFO), foresters and forest guards were trained to tackle necessary work.
 Temporary/daily wages workers, cattle watchers, etc. were lacking these skills to deal with new
 challenges of the programme.
- Role of Local People in Project Work was far from satisfactory. There was low participation of local community in the programme. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA accrued both direct and indirect benefits in the project area. Additional geographical area came under forest cover. It helped in improving quality of ecology and environment as well as micro-dimate of the area.
- Formation of SHG in the Project was optional for the project authority to provide additional benefits of community in the project area. There was no attempt at this front from the project authority.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

 Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.

- There was shortage of front/line staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial establishments and urban areas (@Rs.400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season.
- Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area and in NCR region.
- Inadequate Infrastructure at range level offices impacted performance and quality of work as reported by some officials.
- Biotic and natural factors like wild animals like, rabbits, blue buils and porcupines, terrain, poor soil
 condition, extreme nature of climate (very high temperature in summer and low in winter), ematic
 monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.D SUGGESTIONS AND RECOMMENDATIONS

- Measures should be taken to check grazing in the area. Stall feeding of domestic animals should be promoted among local community through regular awareness and motivation.
- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gablons of Iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out regularly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pemphlets, posters, wall writings, slogan shouting, ratiles, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- Selection plantation species should be based on scientific parameters and local factors. There was
 adoption of high proportion of Papri at most plantation sites during 2012-13. The project authority
 agreed with our view points and assured us that due attention would be given in future plantation.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an Inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- ◆ The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10[®] 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - II. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - III. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority.

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- I. Conservation, protection, regeneration and management of existing forests;
- il. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- lil. Compensatory afforestation;
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
- v. Research, training and capacity building,
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monles received from various sources would be credited into the account of State CAMPA. It is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - Grants or ald received if any;
 - . Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-II), Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- State CAMPA is intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monles collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife, its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows;
 - Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory Afforestation
 - Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - ♣ Environment Protection and Sustainable Forest Management.

1.5 Geographic Location of Monitoring & Evaluation

- The study covers entire Mahendragarh Forest Division in Mahendragarh district of Haryana.
- 1.6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.e. 2012-13.

1.7 Components of the Project

- Main components of CAMPA are as follows:
 - People's Participation
 - ♣ Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - Monitoring and Evaluation of the programme
 - Conservation and protection of forests, infrastructure development, wildlife conservation and protection, etc.
 - Extension and awareness
 - Monitoring of the programme, etc.

1.8 Project implementing Agency and Proposed Activities of the Programme

 A brief outline of the project agency and programme implementation is given below in table-1.2

Table 1.2; Implementing Agency and Proposed Activities of the Programme

Table 22, Implei	HELL	ing Agency and Proposed Activities of the Programme
Project Implementing Agency		
District	:	Mahendragarh
◆ Forest Division	:	Mahendragerh
♦ Forest Circle	:	Gurgaon Circle, Gurgaon
♦ State	:	Haryana
Project Location		
 Watersheds/Sub-watersheds 	;	NA .
◆ Development Blocks	:	NA .
◆ Forest Ranges (3)	:	Mahandragarh, 2. NCH and 3. Namaul During 2012-13 CAMPA work was conducted in all of them.
◆ Project Sites/Locations	:	15 (Fifteen)
Assots / Infrastructure Development	. Ac	ivities s. If any
◆ NA		
Preparation of Plantation Journal :	and	Record Upkeep
 There was not any separate remaintained cash book, which 	agişa Nad	ter or Plantation journals for plantation site. However, the project authority is the details of plantation and other assets of the programme. During the evaluator discussed the importance and benefits of plantation journals.
Project Duration, Area and Cost	•	
◆ Project Duration	:	2012-13
◆ Project Area (78.8 RKM)	:	Target: 92.68 RKM/ha (67.68 RKM and 25 ha)
◆ Project Cost	;	Target: Rs.71,23 lakh and achievement: Rs.14,97 (akh)
Proposed Strategies and Salfert Fe	atul	
◆ There is no provision of VFC in		
 Plamation was cerried out und 		
		

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

 Scope of study is confined to Mahendragarh Forest Division in Mahendragarh district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - · To analyze factors impacting plantation survival and suggest remedial measures,
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques
 were adopted wherever required in the selection of plantation sites, villages, forest officials
 and community leader for conducting interviews, etc.
- Sample Selection, Size and its Distribution: A sample of 68.60% (63.58 RKM/ha) was drawn during field visit of plantation area to estimate survival percentage of plantation. To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting the plantation at random locations along with row counting keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the <u>Project Concept</u>, <u>Strategy Objectives and Methodology</u>.
 - Chapter-2 gives the Profile of the Prolect Area and its Location
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with <u>Project Constraints and Limitations</u>
 - Chapter-6 provides <u>Suggestions</u> and <u>Recommendations</u>.

1.14 Limitations of the Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation, in-depth discussion with various stakeholders of the programme helped a lot in this regard.

Chapter-2

Profile of Project Area

2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 61 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala_Division has five (5) districts namely. Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar,
- Gurgaon Division has six (6) districts namely Mahendragarh, Mahendragath. Gurgaon, Rewarl, and Mahendragarh districts in its jurisdiction.
- Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Mahendragath districts.
- Rohtak Division also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonipat in its jurisdiction.

2.1.1 Land Use Pattern of Haryana

- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland while area under tree cover is 3.16% (1395 so km). Thus forestland and tree cover together covers 6.80% of the state geographical area.
- Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation (13.11%), Current fallows (2.40%). Permanent pasture and other grazing lands

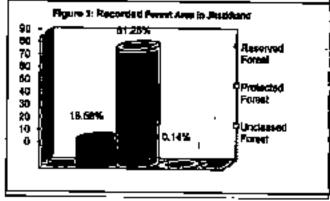


Figure 1: Land Use Pettern in Huyana (%)

(0,69%), Culturable wasteland (0,67%), Land under misc. tree crops and groves (0,28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use (India State of Forest Report 2011, FSI Debra Dun).

2.1.2Recorded Forest Area in Haryana

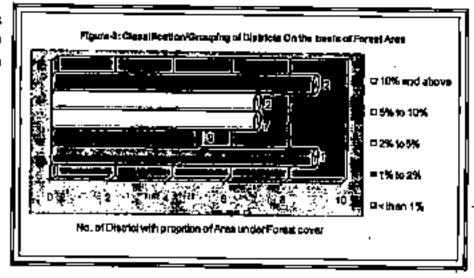
- The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests,
- An area of 303,92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.59% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. Refer Figure-2.

2.1.3District wise Distribution of Forest Area in Haryana.

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1; Two districts namely Panchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group-2: Two districts namely Gurgaon (8.35%) and Mahendragarh (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala, Palwal, Faridabad, Mahendragarh Bhiwani, Rewari and Kaithal fall in the category of 2% to 5% forest cover.



- Group-4: Nine districts namely Hisar, Jhajjar, Karnal, Kurukshetra, Panipat, Rohtak, Mahendragarh, and Sonipat and they fall in group of 1% to 2% forest cover.
- Group-5: One district namely Fatehabad which has less than 1% area under forest cover.
 Refer Figure-3 for further information.

2.2 Profile of Mahendragarh District and Forest Division

 Mahendragarh district is situated in the south western corner of Haryana. It is located at 28.28°N 76.15°E it has an average elevation of 262 metres (859 feet), Mahendragarh district is bounded on the north by Bhiwani and Rohtak districts, on the east by Rewari

district and Alwar district of Rajasthan, on the south by Alwar, Jaipur and Sikar districts of Rajasthan, and on the west by Sikar and Jhunjhunu districts of Rajasthan. The district occupies an area of 1,859 sq. km. Namaul city is the administrative headquarters of the district. Mahendragarh is one of the very few districts in India where the name of the district and its main town are different.

It is named after Maharaja Mahendra Singh who was the ruler during the Mughal era, it is situated at the bank of Dohan river (which was a seasonal river), which is at the verge of extinction. Mahendragarh district is divided into 4 tehsils, Namaul, Ateli, Kanina and Mahendragarh and 1 sub-tehsils, namely, Nangal Chowdhary. There are 4 Vidhan Sabha constituencies in this district:



Ateli, Mahendragarh, Narnaul and Nangal Chaudhry. All of these are part of Bhiwani-Mahendragarh Lok Sabha constituency.

◆ As of 2011 it is the third least populous district of Haryana (out of 21), after Panchkula and Rewari. It has a population of 9.22 roughly equal to the nation of Fiji or the US state of Delaware. This gives it a ranking of 462rd in India (out of a total of 640). The district has a population density of 485 inhabitants per square kilometre. Its population growth rate over the decade 2001-2011 was 13.43%. Mahendragarh has a sex ratio of 778 females for every 1000 males and a literacy rate of 76.9%.

2.3 Forest Cover In Mahendragarh District

 According to India State of Forest Report-2011, Mahendragarh district has 3.82% area under forest cover against 3.64% of state average. Main plant species found and adopted under CAMPA programme in the district were Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Neem, Pipal, Ber, etc.

Chapter-3

Quantitative Evaluation and Findings

- 3.1 Classification of Area Covered/Treated
 - 92.68 RKM/ha (57.68-RKM and 25 ha) forestland was treated under CAMPA by adopting CA, CAMPA-ANR and CAMPA-Urban schemes of plantation during 2012-13. It was implemented in all three ranges of the division (Mahendragarh, NCH and Namaut). Refer table-3.1 for detailed information.





	•	Table 3.1 Area Covered/Tre	ated Under	CAMPA (2012-13)	l		
SL	Range	Project/Plantation Site	Land	Scheme of	A	ušt	Y ear of
No		Troject Financial and	Category	Pfantation	ha.	RKM	Plantation
1	Mahendragarh	RF Sohla, Comp. No.4	RF	CA	8.	27.68	
2	Mahendragarh	ndragarh RF Duloth, Comp. No.8 RF CAMPA/ANR		CAMPA/ANR	•	10]
	Sub Total						1
3	NCH	Maliya Ki Dhani to Nayan Rd	PF	CAMPA/ANR	4,4	00	1
٧	NCH	Armirpora to Thanwas Rd	PF	CAMPA/ANR	1.5	00	1
5	NCH	Meliya ki Dhani to Nareda Rd	PF	CAMPA/ANR	1.85	00	1 .
6	NCH	Amarpura Banthari Rd	PF	CAMPA/ANR	2.25	00	1
7	Nactual	Thana Sec. 4 & 5 area	PF.	CAMPA/ANR	15	00	1
		Sub Total		•	25	00	1
8	NCH	New Anaj Mandi Mangal Chaudhary	PF	CAMPA/Urban	00	1	2012-13
9	NÇH	Power House Nangal Chaudhary	PF	CAMPA/Urban	00	4	1
10	NOH	Animal & Civil Hospital NCH	PF	CAMPA/Urban	00	1	1
11	NCH	College Nangal Chaudhary	PF	CAMPA/Urban	00	2	1
12	NCH	Nameul Nangal Chaudhary Rd	PF	CAMPA/Lirban	00	1	1
13	NCH	Nangal Chitodhary Kumaniya Rd	PF PF	CAMPA/Urban	CC	2	i 1
14	NCH	Noteyaza to Gaushala Rd	2F	CAMPA/Urban	00	4	1
15	Narnaul	New Anaj Mandi & Shamshan Chat	₽F	CAMPA/Urban	00	15	1
		00	30				
		Grand Total			25	67,58	
					92.68	RKM/ha	

- 3.2 Physical and Financial Target and Achievements
 - ◆ Total expenditure of the entire project during 2012-13 was Rs. 14.97 lakh against the target of Rs. 71.23. In the programme plantation work was carried out in all three ranges of the division. Refer table 3.2 for detail information.



		Table 3.2: Physical and Financial T						
sı		The season of th	Ber E.		al-Arca			(Re. in lakh)
No.	Range	Plantation Site	T ₄	ugat	Actionsment		T	Anhin an
			ha	RKM	hal	RKM	Target	Achievement
ָן	Maherdragarh	RF Sohla, Comp. No.4	00	27.68	00	27,68	12.46	
5	Mahandragarh	RF Duloth, Comp. No.B	- 00	10	00	10	1.50	
3	NCH	Maliye Ki Dheni to Nayan Ro	4.4	00	4.4	00	0.84	
4	NCH	Amarpura to Thacwas Rd	1.5	000	1.5	00	0.21	
5	NCH	Maliya ki Chant to Marada Rd	1,85	00	1.85	00	0.27	
6	NCH	Amarpura Barihari Rd	2.25	00	225	00	0.32	
7	Mamaul	Thans Sec. 4 & 5 area	15	00	15	-00	2.18	
8	NCH	New Anaj Wandi Nangal Chaudhary		1	00	1	0.88	4,16+
9	NCH	Power House Nangal Chaudhary	×	4'	00	4	2.75	1.50=5.65
10	NCH	Animal & Civil Hospital NOH	00	1	<u> </u>	1	0.69	
11	NCH	College Nengat Chaudhary	(%)	2	00	2	1.37	
12	N CH	Nameul Nameal Chaudhary Rd	00	1	00	1	0.68	
13	NÇ.	Nangal Chaudhary Kamaniya Rd	00	2	00	2	1,37	
14	₹	Nolayaza to Caushala Rd	00	4	Öü	4	2.74	
15	Nameul	New Anaj Mandi & Shamahan Glast	00	15	00	15	10.28	
		Total	25	67,68	25	57.68	38,14	5.65
	r 4clivities/Assob							
	enance of Plants	ation					1509100	645714
Boundary Wall							100000	99903
	e Quarter						1500000	85400
Contr	act Service emp						100000	100000
		Sub Total					33.09100	9.32014
		Grand Total	-				71.23	14.97

3.3 Inventory/ List of Plantation

 A total of 0.219 lakh plant species of Papri, Neem Shisham, Bakain, etc. were planted in the project at 15 sites comprising 92.68 RKM/ha land in all three ranges of the division. Rangewise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

a l	— Donos	<u>_</u>	Scheme of	۸ ۸	Teat	No. of	Name of Plant	Year of Plantati on
No		Project/Plantation Site	Plantation	Нш	RKM	plants	Species	
ī	Mahendragarh	RF Sohla, Comp. No.4	CA .	00	27.68	6920	Papri, Neem	
2	Mathemoragam	RF Dukoth, Comp. No.8	CAMPA/ANR	00	10	2500	Papri	1
3	NCH	Mallya Ki Dhami to Nayan Rd	CAMPA/ANR	4.4	00	880	Papri	1
4	NCH	Amarpura to Thanwas Rd	CAMPA/ANR	1.5	00	300	Papri, Neem	1
5	¥Ç.	Mathya ku Chani to Nareda Ro	CAMPA/ANR	1.85	00	370	Papri	1
6	<u> </u>	Amerpura Bantheri Rd	CAMPA/ANR	2.25	00	450	Papri, Neem	1
7	Namayi	Thana Sec. 4 & 5 area	CAMPA/ANR	15	œ	3000	Papri, Neem	1
8	NCH	New Anaj Mandi NCH	CAMPA/Urban	70	1	250	Papri	1
9	Ž.	Power House Nangal Chaudhery	CAMPA/Urban	00	4	1000	Papri	7012-13
LD j	NCH	Animal & Civil Hospital NCH	CAMPA/Urban	0:0	1	250	Papri	1
11	NCH	College Nangai Chaudhary	CAMPA/Urban	00	2	500	Papri	1
12	ИÇН	Nameul Nampai Chaudhary Rd	CAMPA/Urban	00	1	250	Papri	1
13	XCH XCH	Nangai Cheudhacy Kameniye Rd	CAMPA/Urban	D0	2	500	Papri, Neem	1
14	춫	Nolayaza to Gaushala Rd	CAMPA/Urban	00	4	1000	Papri, Neem	1
15	Marnaut	New Arial Mandi & Shumshan	CAMPA/Urban	00	15	3750	Papri, Neem,	1
		Ghat					Bakain	
		Total	_	_ 25 _	67,68	21920	<u>.</u> .	1
		_			158			
	_			RKT	4∕ha	l		1

- 3.4 Analysis of Sample Plantation and Survival Assessment
 - A sample of 68.60% (63.58 RKM/ha) was drawn during field visit of plantation area and to estimate survival percentage of plantation.
 - Average survival percentage of seedlings estimated was 68%. The survival percentage was 72% at RF Duloth under Mahendragarh range while it was only 64% at Amarapur to Thanwas Roaad under NCH range. Average height of plantation was 6 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.



	Table 3.4: Analysis of Sample Plantation sites and Assessment of Survival												
St. No.	Range	Plantetion Site	Scheme	Area (tus/RK 40	No. of Plants	Plants Survive d	Survivel (%)	Year					
1	Mahendragarh	RF Sahla, Comp. No.4	CA	27,68	5920	4913	71	-					
2	Mahandraga/fi	RF Duiloth, Comp. No.8	CAMPA/ANR	10	2500	1500	72						
3	NCH	Maliya Ki Dhami to Nayan Rd	CAMPA/ANR	4.4	980	563	64						
4	NCH	Amerpure to Tharmas Rd	CAMPA/ANR	· L5	300	186	62	2012-13					
5	NCH	Power House Nangal Chaudhary	CAMPA/Urban	4	1000	660	68						
6	NCH	Animal & Civil Hospital NCH .	CAMPA/Urban	1	250	173	69						
7	Namasi	New Anaj Mancil & Shamshan Ghat	CAMPA/Lirban	15	3750	2475	56						
		Total		63.58	15600	10790	- 68						

3.5 Registers/Records Maintained in the Project

Cashbook and work registers were maintained by project authority. DFO of the division
assured the evaluation team with regard to preparation of plantation journal for all the
plantation sites conducted under CAMPA programme.

3.5 Monitoring and Evaluation System in the Project

The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate evaluation wing called M & E Wing, it is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana at Mahendragach forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF), its head office is at Kamal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.

3.7 Involvement of independent Agency for Evaluation of CAMPA

The project authority reported that an independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12, Overall findings of the study were satisfactory as reported.

3.8 Bank Account Details and Flow of Funds

Bank account of CAMPA Programme of Mahendragarh forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Mahendragarh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

Chapter-4

Qualitative Analysis and Findings

4.1 Preference and Basis of Species Selection

 Topography, soil type, climate, rainfall, sultability of species in the area, preference shown by local community, etc. were main factors in the selection of plant species. However, the project authority took decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

Wherever the plantation was conducted under CAMPA programme there was some improvement in soil moisture conservation. However, limited provision of funds on this head of the programme did not provide much option to the project authority to carry out additional work related to it.

4.3 Assessment of Survival Percentage

Average survival percentage of seedlings estimated was 68%. The survival percentage was 72% at RF Duloth under Mahendragarh range white it was only 64% at Amarapur to Thanwas Roaad under NCH range. Average height of plantation was 6 feet. Growth and health of plantation was good. To estimate survival percentage a sample plot of 0.25 ha (50meterx50meter) was adopted at random location and row counting of plantation was also adopted to count the seedling at random location, information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

 Natural regeneration of plant species in the area was hardly observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone there were some glimpses of it due to presence of other species around plantation area.

4.5 Quality of Work

 Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

 Grazing by domestic animals, damage wild animals like, rabbits, blue bull and porcupine, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. were important factors that impacted growth and survival of plantation

4.7 Protection and Maintenance of Plantation

 Barbed wire and at few places bush fencing were important measures at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions. were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be better care of plantation through elaborate fencing and regular care. The process of awareness raising and motivation of local community should be adopted in the project at regular intervals.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc., should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

♣ There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme:

CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fooder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

The project authority did not take any effort for SHG formation under CAMPA programme, it was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT

There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

5.1 Unprotect Grazing by Loose Domestic Animals

 Open grazing by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area, it led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff

Project authority reported that there was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation. However, frash recruitment was conducted in the entire state of Haryana to fill the vacant positions and recently this problem was over. But impacted the programme adversely.

5.3 Low Wage Rate of Forest Department as Compared to Private Sector

 Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.

5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate

 Due to high rate of urbanization and industrialization in some part of the project area and in NCR region, there was high demand of labour force and hence the forest department had to face shortage of labour as reported.

5.5 Inadequate Infrastructure In the Division and Forest Ranges

 At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority, it impacted performance and quality of work as well as outcome of project.

5.6 Other Blotic and Natural Factors Impacting Survival of Plantation

Biotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. Impacted growth and survival of plantation.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy, it is as follows:

- 6.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals
- Some viable measures should be adopted to check or at least minimize harzings. Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
- The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gabions of Iron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2012-13 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.
- 6.6 Make Four Years of Protection and Maintenance Funding
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- 6.7 Make Monitoring and Evaluation Regular, Systematic and Effective
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF and two DFOs. It head office is located at Karnal. CAMPA programme along with other

forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

- 6.8 Intensive Awareness Campaign to Motivate Local Community
- There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.
- 6.9 Organize Exposure Visit for Staff Member and Local Community
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality and outcome of the programme.
- 6.10 Selection plantation species should be based on scientific parameters and local factor.
- There was adoption of high proportion of Papri at most plantation sites during 2012-13. The
 project authority agreed with our view points and assured us that due attention would be
 given in future plantation.

5.11 Introduce Practice and Concept of Earning Carbon Credits

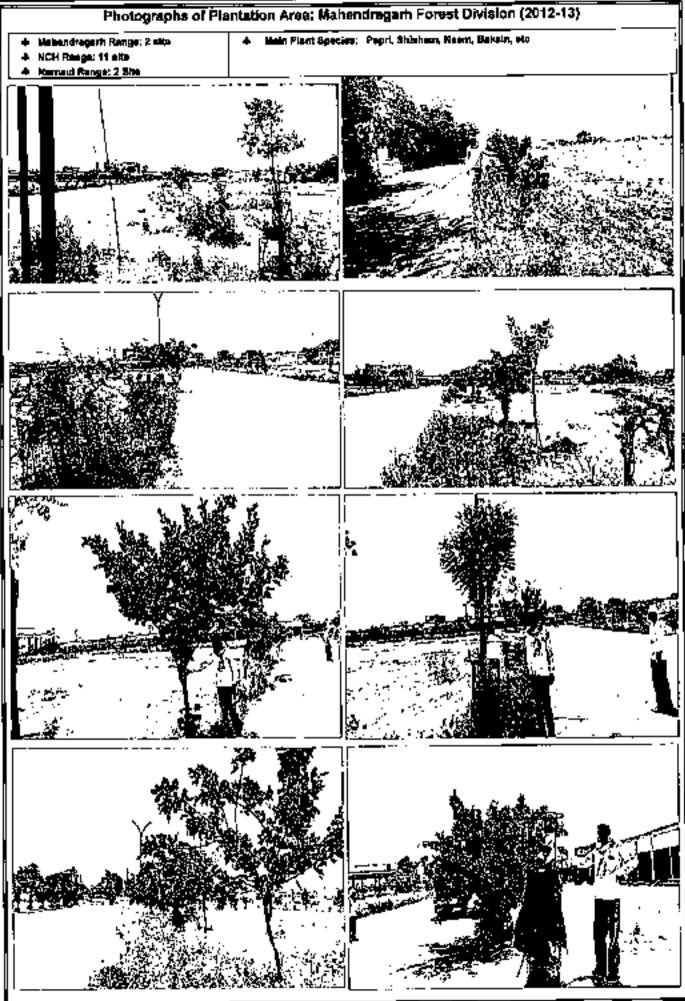
The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures, it should be introduced forthwith in the project area at village level for environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option.

5.12 Interview with Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation team interacted interviewed DFO Mahendragarh (Mr. Ved Prakash, Mob:+91-9416365166, Office:: +91-1285220229) along with RFOs, Foresters and Forest Guards. A brief summary of interviews is as follows.
- DFO, Mr. Ved Prakash and other officials were happy with outcome and progress of CAMPA work carried out during 2012-13. About selection of plant species they were of the view that soil, climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, etc. were main factors. Most preferred plant species in the division were Papri, Neem, Bakain, Shisham, etc. Open grazing due high cattle pressure, rocky terrain, poor soil, erratic and low rain fall were main of factors plantation casualty. The project authority further said that all the field staffs were hard working and they owned responsibility and performed their duty well. There was need to work hard to improve the outcome of the programme.

6.13 Evaluator's Assessment

After field inspection, verification of official records and interaction with DFO and other stakeholders of the programme, it was concluded that above statements made by the project authority was true to a great extent. The project authority followed the stated guidelines of programme. Modern tools of mass media should be adopted for awareness campaigns for better impact. System of internal monitoring and evaluation in the programme should be streamlined and carried out effectively.



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SL No	Type of tand	Name of Scheme/	Name of Range	Name of Site	Khasra Nn.	Plantatio n Month	Target Achieved		No. of Plants	Name of Species	Spacing (m)	GPS Coordinates	
	Gorest/Mon -forest/	companent			KM/RD		Ha	RKM				Longitude	Latitude
1	2	3	4	5	5	7	8	9	10	11	12	13	14
1.	RF	CŅ	Mahendragarh	RF Sohle, Comp. No.4	NA.	July	D O	27.58	6920	Papri, Neom	4x4	NA.	NA.
2.	RF	CAMPA/ANR	Mahendragarh	RF Duloth, Comp. No.2	NA.	July	00	10	2500	Papri	4x4	. NA	NA '
3.	Road	CAMPA/ANR	NCH	Maliya Ki Dhani to Nayan Rd	NA.	July	4.4	200	880	Papri	4x4	NA .	NA.
4.	Road	CAMPA/ANR	NCH	Amurpura to Therwas Rd	NA.	July	15	00	300	Papri, Nesm	484	NA.	NA
5.	Road	CAMPA/ANR	NCH	Maliya ki Dhani to Nareda Rd	N/A	July	1.85	00	370	Papri	474	NA.	NA
6.	PF	CAMPA/ANR	₩ÇH	Amerpura Banihari Rd	NA.	July	225	00	450	Papri, Neem	4×4	NA	NA
7.	Forestaund	CAMPA/ANR	Nameul	Thans Sec. 4 & 5 ares	NA	Justy	15	00	3000	Papri, Neem	4x4	NA NA	NA
8.	Campus	CAMPA/Urban	NCH	New Anaj Mandi NCH	NA.	July	00	1	250	Papri	dzd	NA.	NA
9.	Power House area	CAMPA/Urban	NCH	Power House Nangal Chauchary	NA.	July	00	4	1000	Papri	484	NA .	NA.
10.	Hospital	ZAMPA/Lirtxan	NCH	Animal & Ovil Hospital NOH	NA.	July	00	1	250	Papri	444	NA .	NA
11.	College	CAMPA/Lirban	NCH	College Nurgal Chauchary	NA.	July	00	2	500	Papri	414	NA	NA
12.	Road	CAMPA/Urban	МСН	Namaul Nangal Charchary Rd	NA.	July	00	1	250	Papri	4x4	N/A	NA
13.	Road	CAMPA/Lirban	МОН	Nangai Chaudhary Kamaniya Rd	NA.	July	00	2	500	Papri, Neem	4364	NA	NA
14,	Forestland	CAMPA/Lirban	жэн	Nolayeza to Generala, Rd	NA.	July	00	4	1000	Papri, Neero	414	NA ·	NA
15.	Саптрия	CAMPA/Lirban	Nameul	New Angi Mandi & Shamshan Ghat	NA.	July	00	15	3750	Papri, Neera, Bakaun	4x4	NA .	NA
		<u> </u>	:		-	7: 1	25	67.68	21920	_	-	-	_

Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

Government of India, New Delhi



MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED

Duration of Evaluation; 2012-13

a Final Report

Submitted to

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTAN III

April 2015

LOQUS RESEARCH & CONSULTANTS PVILLID.

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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY MEWAT FOREST DIVISION (NUH) IN MEWAT DISTRICT OF HARYANA

Duration of Evaluation: 2012-13

Final Report'

Submitted_to

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA

April, 2015

Conducted by

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Mewat Forest Division (Nuh) In Mewat District of Haryana (2012-13)" was successfully completed. However, it would not have been possible without the kind support of many individuals and organizations working and associated with Locus Research & Consultants Pvt. Ltd. I would like to extend my sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal and other officials at PCCF office especially DCF, Mr. Garg, Mr. Hembram along with office staff Mr. D.P. Tyagi for reposing faith and awarding the honour of Monitoring & Evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency.

I also express my thanks to DFO, Mewat Forest Division, Mr. Harlsh Walia along with RFOs and other forest staffs. My Interaction with them helped in understanding different aspects of CAMPA implementation and its progress during 2012-13.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly indebted to Mr. BKP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

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Director Locus Research & Consultants Pvt. Ltd. New Delhi, April, 2015



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Preface

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates. i.e. a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programines and d) provide a mechanism to State CAMPA to resolve usues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently tying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana of **Methods** forest division by PCCF office on professional terms and condition, Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry professionals and subject experts with many years of experience.

During 2012-13 a total of 7880 RKM forestland was treated under CAMPA by adopting CA (51.80 RKM) and NPV (27 RKM) schemes of plantation at F.P. Jhirka of Mewat (Nuh) forest division. Total expenditure incurred in the above activities was Rs. 28.92 takh. A total of 0.198 takh plant species of *Papri, Bakain, Shisham, Arjun, Kihar, Balam Khira, Tun, Jamun, Reuryho, Allanthus, Neem, Pipri, Ber,* etc., was planted in the project.

Average survival percentage of seedlings estimated was 70%. The survival percentage was71% at FP Jhirks Anaj Mandi under NPV scheme and it was 69% at Alipur Tigra Reegath Sec. 485. Average height of plantation was 6 feet. Average grading awarded to the programme was 6.5 ton 1 to 10 scale), which was very good.

In the process of evaluation members of evaluation team interacted with field level forest staff and local community. At most places local people were happy with the efforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation

New Delhi

April, 2015

emesh K Singh

Director

Locus Research & Consultants Pvt. Ltd.

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- 4	c.	м		N	7	M	3

ACF Assistant Conservator of Forests

Affo Afforestation

APCCF Additional Principal Chief Conservation of Forests

APDs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee
CF Conservator of Forests
CN Compartment Number

CPT Continuous Protection Trench
DCF Deputy Conservator of Forests

DFO Divisional Forest Officer
OG-Forests Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Entry Point Activity

FOA Forest Development Agency
FGD Focus Group Discussion
FTC Forest and Trac Cover
GOI - Government of India
GPS Global Positioning System

Faridabad Division (T) Faridabad Forest Division Territorial

a Hectare

JFMC Joint Forest Management Committee

M & E Monitoring & Evaluation
MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme
NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

pp Protected Forest

PRA Participatory Rural Appraisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Kilometer
RO Range Officer
SC Scheduled Castes
SF' Social Forestry

SMC Soll & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Un-class Forest

VFC Village Forest Committee

Local Name and Botanical Name of Plant Species

ŞL. No.	Common Name	Botanical Name
1.	Ailanthus	Ailanthus excelsa
2.	Arjun	Terminalia arjuna
3.	Bakain	Melia azedarach
4.	Ber	Ziziphus mauritiana
5.	Blam Kheera	Kygelia pinnata
6.	Jamun	Terminalia arjuna
7.	Kikar	Acacia Arabica
8.	Neem	Azadirecta indica
9.	Papri	Holoptelea integrifolia
10.	Pilkhan	Ficus virens
11.	Pipal	Ficus religiosa
12.	Reunjha	Acacia leucophloea
13.	Shisham	Dalbergia sissoo
14	Тип .	Toona ciliate

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2012-13

Mowat Forest Division, Mawat District, Haryana

	Average Grading on a Scale of I to 10	
Item/Aspect	Project Components	Yalue
Quantitative Aspects	Physical	9
	Financial	8
Qualitative Aspects	Survival	7
	Health of Plantation	6
	Maintenance	6
	Sustainability	6
JFM/Social Aspects	Degree of Peoples' Participation	5
	Satisfaction over Perceived Benefits by the Local Population	5
Overall Grading (Very Go	od)	5.5

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of CAMPA programme of Mewat Forest Division in Mewat district carried out during 20122-13 was conducted in the month of April 15-18, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency. A total of 78.80 RKM forestland was treated by adopting CA (51.80 RKM) and NPV (27 RKM) plantation schemes at 3 places at FP Jhirka Forest range. There was 72.80% coverage of project sites/areas in field visit analyse the programme and to estimate survival percentage. Summary of findings of the study is given below.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

3.0 OBJECTIVES OF THE CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION /AREA OF MONITORING & EVALUATION

The study covered the elenthre Mewat (Nuh) Forest Division in Mewat district of Harvana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2012-13.

6.0 NEED OF THE STUDY

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project,
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created.
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.D METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purposive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. There was coverage of 72.08% project area. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count septings at random location to estimate survival percentage. On row /linear plantation, counting of plants in row was adopted.

9.0 PROFILE OF THE STUDY AREA

- The state of Haryana comprises 21 districts, 45 sub-tehsils, 47 subdivisions, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6,759 villages. During the creation of state of Haryana on November 1, 1966, there were only seven districts in the state. Subsequently, 14 other districts were included through restructuring the previous ones.
- Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use pattern about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- As per India State of Forest Report-2011, Mewat district has 8.5% area under forest cover.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- 78.80 RKM forestiand was treated under CAMPA by during 2012-13. It was implemented at only FP Jhirka range of the division.
- ♦ Total expenditure during 2012-13 Rs 28.92 lakh against the target of same amount. Plantation work was carried out at three places in FP Jhirka forest range on 78.80 RKM protected forestland.
- A total of 0.198 lakh plant species of Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Ailanthus, Neem, Pipal, Ber, etc. were planted at three sites.
- A sample of 72.08% (56.80 RKM) was drawn during field visit of plantation area to estimate survival
 percentage of plantation.

- Average survival percentage of seedlings estimated was 70%. The survival percentage was 71% at FP Jhirka Anaj Mandi under NPV scheme and it was 69% at Alipur Tigra Reegarh Sec. 485. Average height of plantation was 6 feet. Growth and health of plantation was good.
- Work register and coshbook were important registers maintained by project authority in this project. DFO of the division assured the evaluator that plantation journal would be prepared in all the plantation sites conducted under CAMPA programme when it was discussed with him.
- The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate evaluation wing called M & E Wing. It is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana at Mewat forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF). Its head office is at Kamal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry-programmes of the state along with CAMPA.
- An independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12 as reported by project authority. Overall findings of this study were satisfactory.
- Bank account of CAMPA Programme of Mewat forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Nuh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Main factors in the selection of plant species were topography, soil type, climate, rainfall, suitability of species in the area, preference shown by local community, etc. were. However, the project authority took decision in this regard after taking into account of all these factors.
- CAMPA programme Improved soil moisture conservation to extent. Limited provision of funds on this
 head of the programme did not provide much option to the project authority to carry out additional work
 related to it.
- Natural regeneration of plant species in the area was hardly observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone there were some glimpses of it due to presence of other species around plantation area.
- Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection.
- Grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and portupine, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. were important factors that impacted growth and survival of plantation
- Barbed wire and at few places bush fencing were important measures at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance.
- Forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

- There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area.
- CAMPA programme accrued direct and indirect benefits. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fooder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT.

- Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial
 establishments and urban areas (@Rs.400-500 per day). It caused hardship and limitations to project
 authority in finding labour forces during peak plantation season.
 - Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area and in NCR region.
 - Inadequate Infrastructure at range level offices impacted performance and quality of work as reported by some officials.
 - Biotic and natural factors like wild animals like, rabbits, blue bulls and porcupines, terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gabions of iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Viable measures should be adopted to check grazing problem. Stall feeding of domestic animals should
 be promoted among local community of the area through regular awareness and motivation.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out regularly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, slogen shouting, railles, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas
 within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people tiving in and adjoining area in about 1.73 takh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - iii. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority.

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- i. Conservation, protection, regeneration and management of existing forests;
- It. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- iii. Compensatory afforestation;
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
- v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV).
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the Forest (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - Grants or aid received if any;
 - · Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monles received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-5, Panchkula, Haryana.
- ❖ State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-II), Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas Including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- "State CAMPA is intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual
 engagement of personnel wherever there is shortage of personnel. This should be done
 cautiously to avoid recurring revenue expenditure on the State Government. (t may also
 take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - 4 Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory Afforestation
 - Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - Environment Protection and Sustainable Forest Management.

1.5 Geographic Location of Monitoring & Evaluation

- The study area covers the entire Mewat Forest Division (Nuh) in Mewat district of Haryana.
- 1.6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.e. 2012-13.

1.7 Components of the Project

- Main components of CAMPA are as follows:
 - People's Participation
 - + Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - ★ Monitoring and Evaluation of the programme.
 - Conservation and protection of forests, infrastructure development, wildlife conservation and protection, etc.
 - Extension and awareness
 - Monitoring of the programme, etc.

1.8 Project Implementing Agency and Proposed Activities of the Programme

 \diamond A brief outline—of the project agency and programme implementation is given below in table-1.2

Table 1.2: Implementing Agency and Proposed Activities of the Programme

Project Implementing Agency			
 District 	:	Mewat	
 Forest Division 	:	Mewat	

Forest Circle : Gurgaon Circle, Gurgaon

State : Haryana

Project Location

Watersheds/Sub-watersheds : NA
 Development Blocks : NA

conducted at only F.P. Jhirka range.

♦ Project Sites/Locations : 3 (Three)

Assets/ Infrestructure Development Activities a, if any

NA

Preparation of Plantation Journal and Record Upkeep

There was not any separate register or Plantation journals for plantation site. However, the project authority maintained cash book, which had the details of plantation and other assets of the programme. During interaction with project authority, the evaluator discussed the importance and benefits of plantation journals.

Project Duration, Area and Cost

♦ Project Duration : 2012-13

Project Area (78.8 RKM) : Target: 78.80 RKM (51.8 RKM with CA Scheme and 27 RKM with NPV)

Scheme and it was achieved cent per cent

Project Cost : Target: Rs.28.92 lakh and Achievement: Rs.28.92 lakh

Proposed Strategies and Sallert Features of the Project

- There was no provision of VFC in CAMPA.
- Plantation was carried out under NPV and CA schemes/components

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

Scope of study is confined to Mewat Forest Division in Mewat district of Haryana.

1.11 Objectives of Monitoning & Evaluation

- · Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - · To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.
- Sample Selection, Size and its Distribution; There was 72,08% (56,80 RKM) coverage of plantation area in the project during field visit in the process of evaluation of CAMPA programme during 2012-13 from the total target of 78,80 RKM. It was 51,80 RKM from CA scheme and 5 RKM from NPV scheme of plantation. The entire project activity was carried out at FP Jhirka forest range during 2012-13 in Mewat forest division.
- To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting the plantation at random locations along with row counting keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter_wise_organization_of_Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the <u>Project Concept</u>, <u>Strategy Objectives and Methodology</u>.
 - Chapter-2 gives the Profile of the Project Area and its Location
 - Chapter-3 discusses Quantitative Analysis and Findings_of_the Study.
 - Chapter-4 gives Qualitative Analysis and Findings.
 - Chapter-5 deals with <u>Project Constraints and Limitations</u>
 - Chapter-5 provides Suggestions and Recommendations.

1.14 Limitations_of_the_Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation. In-depth discussion with various stakeholders of the programme helped a lot in this regard.

Chapter-2

Profile of Project Area

2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division. Hisar Division and Gurgaon Division. The state comprises 47 subdivisions, 21 districts, 45 sub-tensils, 67 tensils/towns and 116 blocks. The state is home to 81 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala Division has five (5) districts namely. Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar.
- Gurgaon Division has six (6) districts namely. Mewat. Mahendragarh, Rewari, and Mewat districts in its jurisdiction.
- Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Sirsa. districts.

Robtak Division also has five (5) districts namely Karnal, Jhajjar, Robtak, Panipat, and

Sonipat in its jurisdiction.

21.1Land Use Pattern of Haryana

- Total geographical area of Haryana is **442)2** sq km which is **1.35%** of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland while area under tree cover is 3.15% (1395 sq. km). Thus forestland and tree cover together covers 6.80% of the state geographical area.
- Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation (13,11%), Current fallows (2,40%), Permanent pasture and other grazing lands

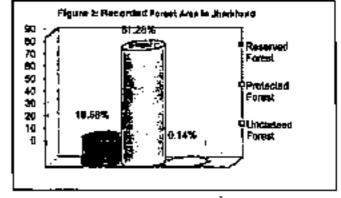


Figure 1: Land Use Pattern in Haryana (%)

(0.69%), Culturable wasteland (0.67%), Land under misc. tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc., See Figure +1 as given below, Source: Land Use (India State of Forest Report 2011, FSI Dehra Dun).

2.1.2Recorded Forest Area in Haryana

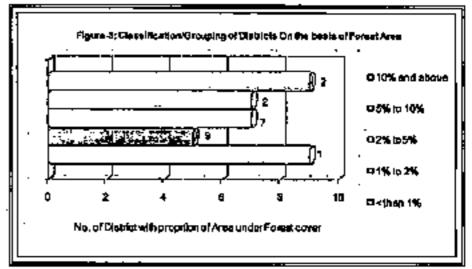
- The recorded forests area in the state is 3.64% of its geographical area. Reserved Forests
 - constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. *Refer Figure-2*.

2.1.3District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1: Two districts namely Panchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group:2: Two districts namely Gurgaon (8.35%) and Mewat (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala, Palwal, Faridabad, Mahendragash Bhiwani, Rewari and Kaithal fall in the category of 2% to 5% forest cover.



- Group-4: Nine districts namely Hisar, Jhaljar, Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat and they fall in group of 1% to 2% forest cover.
- Group-5: One district namely Fatehabad which has less than 1% area under forest cover.
 Refer Figure-3 for further information.

2.2 Profile of Mewat District and Forest Division

Mewat district is one of the 21 districts and altuated in the southern part of Haryana. It was carved as the 20th district of Haryana from 'erstwhile Gurgaon district and Hathin Block of Farldabad district on 4th April 2005. However, Hathin sub-division was shifted to Palwal.

district in 2008. It is bounded by Gurgaon district on the north, Rewari district on the west and Faridabad and Palwal districts on the east. Noh town is the headquarters of this district. The district comprises Nuh, Taoru, Nagina, Firozpur Jhirka and Punhana blocks along with 431 villages and 297 panchayats.

- The district occupies an area of 1859.61sq, km. Mewat is populated by the Meos community (mostly Muslims) who are agriculturalists. It has a population of 10.89 lakh (2011 census) roughly equal to Cyprus or the US state of Rhode Island. This gives it a ranking of 420° in
 - India out of a total of 640 districts. The district has a population density of 729 inhabitants per square kilometer, its population growth rate over the decade 2001-2011 was 37.94%. Mewat has a sex ratio of 906 females for every 1000 males and a literacy rate of 56.1%. The average household size in rurat Mewat was 7
- The soil of Mewat is light in texture, particularly sandy, sandy loam and clay loam. The upper hills are mostly barren. The main occupation of the people is agriculture and agro-based activities. The agriculture in Mewat is mostly rain fed except in small pockets where canal irrigation is available. Agriculture production measured in terms of crop yield per hectare is comparatively low to



- the other districts of the State. Animal husbandry, particularly dairy is the secondary source of income for people of Mewat and those who live closer to the hilly ranges of Aravali also keep a few sheep and goets. Milk yields are not so low, however, due to heavy indebtedness most of the farmers are forced to sell the milk to the lenders at lower than normal price, which drastically reduces their income. The poultry population in Mewat is much less in comparison to other districts of Haryana State.
- Climate and Rainfall: Mewat falls under the Sub-Tropical, Semi-arid climatic zone with extremely hot temperature in summer. Dryness of air is standard feature in Mewat except during the monsoon season. May and June are the hottest months of the year with the temperature ranging from 30° C to 48° C. January, on the other hand is the coldest month with temporature ranging between 2° C to 25° C. Strong dusty winds are conspicuous during summer. The annual rainfall varies considerably from year to year. The maximum rainfall is experienced during the monsoon season, which reaches its peak in the month of July. The principal precipitation occurs during monsoon period from June to September when about 80% of the rainfall is received. The average rainfall varies from 336 mm to 440 mm in the district.

2.3 Forest Cover in Mewat District

 According to India State of Forest Report-2011, Mewat district has 8.5% area under forest cover against 3.64% of state average. Main plant species found adopted under CAMPA programme in the district were Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reurijha, Ailanthus, Neem, Pipal, Ber, etc.

Chapter-3

Quantitative Evaluation and Findings

3.1 Classification of Area Covered/Treated

Altogether 78.80 RKM forestland was treated under CAMPA by adopting Compensatory Afforestation (51.80 RKM) and Net Present Value (27 RKM) schemes of plantation during 2012-13. It was implemented at only FP Jhirka range of the division. Refer table-3.1 for detailed information.

	Table 3.1 Area Covered/Treated Under CAMPA (2012-13)							
SL No	Range	Project/Plantation Site	Land Category	Scheme of Plantation	Area in RKM	Y ear of Plantation		
1,	FP Jhárka	Alipur Tigra, Reegarh Sec.4 & 5	Protect Forest	CA-TP	51.80			
2	FP Jhirka	Alipur Tigra, Reegarh Sec.4 & 5	Protect Forest	NPV-TP	22	2012-13		
3.	FP Jhirka	Jhir, Anaj Mendi, FP Jhirka	Protect Forest	NPV-TP	5]		
		_	78.80					

3.2 Physical and Financial Target and Achievements

Total expenditure of the entire project during 2012-13 Rs 28.92 lakh against the target of same amount. In the programme plantation work was carried out at three places in FP Jhirka forest range on 78.80 RKM protected forestland. Refer table 3.2 for detail information.

		Table-3.2: Physical and Financial	Target and A	chievements (20	12-13)		
5L			Physical	(Area in ha)	Financial (Rs. in takh)		
No.	Kaliga	Frantapoli See	Target	Achievement	Target	Achievement	
1.	FP Jhärke	Alipur Tigra. Reegarh Sec.4 & 5	51.80	51.80	19.20	19.20	
2.	fP Jhirka	Alipur Tigra, Reegarh Sec.4 & 5	22	SS	7.92	7.92	
3.	FP Jhirika	Jhir, Anaj Mandi, FP Jhirka	5	5	1.80	1.80	
		Total	78,80	78.80	28.92	28.92	

3.3 Inventory/ List of Plantation

A total of 0.198 takh plant species of Papri, Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Ailanthus, Neem, Pipal, Ber, etc. were planted in the project at three different sites comprising 78.80 RKM of forestland. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

	Table 3.3: Inventory/List of Plantation							
Я	Range	Project/Plantation Site	Scheme of	Area	No. af	Name of Plant	. Year of	
No		_	Plantation	RKM	plants	Species	Plantation	
1	FP Jhirka	Alipur Tigra, Raegarh Sec. 4 B 5	CA	51. 8 0	12950	Kikar, Shisham,	i	
	of Jilling			31.60		Bakain, Papri] '	
₹.	£P "Ahlrka	Allpur Tigra, Reegarh Sec.4 & 5	NºV	22	5500	Kikar, Shisham, Papri	2017-13	
3	FP Jhirka	Jhir, Anaj Mandi, FP Jhirka	MPV	5	1250	Shisham, Papri]	
	''	Total		78.B0	19800			

3.4 Analysis of Sample Plantation and Survival Assessment.

In the process of monitoring and evaluation of CAMPA programme of Mewat Forest Division in Mewat District of Haryana a sample of 72.08% (56.80 RKM) was drawn during field visit of plantation area to estimate survival percentage of plantation.

♣ Average survival percentage of seedlings estimated was 70%. The survival percentage was

71% at FΡ **Jhirka** Anai Mandi uлder NPV scheme and WAS 69% at Alipur Tigra Reegarh Sec. **48**-5. Average





height of plantation was 6 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.

		Table 3.4: Analysis of Sample Plan	tation sites	and Asser	sament of	Survival.		
SL No.	Range	Plantation Site	Scheme	Area (ha)	No. of Plants	Plants Survived	Survival (56)	Year
1	FP Jhinka	Alipur Tigra, Reegarh Sec.4 & 5	Ğ	51.80	12950	8936	- 69	74. A 14
2	FP Jhirka	Jhir, Anaj Mandi, FP Jhirks	MPV	5	1250	888	п	2012-13
		Total		56.80	14200	9824	70	

3.5 Registers/Records Maintained in the Project

Work register and cashbook were important registers maintained by project authority in this project OFO of the division assured the evaluator that plantation journal would be prepared in all the plantation sites conducted under CAMPA programme when it was discussed with him.

3.6 Monitoring and Evaluation System in the Project

The system of Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate evaluation wing called M & E Wing, it is conducted either once or twice a year as reported by the project. The last evaluation of state CAMPA Haryana at Mewat forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF), its head office is at Karnal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.

3.7 Involvement of Independent Agency for Evaluation of CAMPA

An independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12 as reported by project authority. Overall findings of this study were satisfactory.

3.8 Bank Account Details and Flow of Funds

Bank account of CAMPA Programme of Mewat forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Nuh branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

Chapter-4

Qualitative Analysis and Findings

4.1 Preference and Basis of Species Selection

Topography, soil type, climate, rainfall, suitability of species in the area, preference shown by local community, etc. were main factors in the selection of plant species. However, the project authority took decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation.

Wherever the plantation was conducted under CAMPA programme there was some improvement in soil moisture conservation. However, limited provision of funds on this head of the programme did not provide much option to the project authority to carry out additional work related to it.

4.3 Assessment of Survival Percentage

- The estimated survival percentage of plantation carried out during 2012-13 was 70% it was highest at FP Jhirka Anaj Mandi under NPV scheme (71%) while it was 69% at Alipur Tigra Reegarh Sec. 4 & 5 Average height of plantation was 6 feet and they had good growth and health.
- To estimate survival percentage a sample plot of 0.25 ha (50meterx50meter) was adopted at random location and also row counting of plantation was also adopted to count the seedling at random location. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

 Natural regeneration of plant species in the area was hardly observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone there were some glimpses of it due to presence of other species around plantation area.

4.5 Quality of Work

 Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue bull and porcupine, destruction by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. were important factors that impacted growth and survival of plantation

4.7 Protection and Maintenance of Plantation

Barbed wire and at few places bush fencing were important measures at most plantation sites for protection of plantation in urban and sub-urban areas brick/ iron/wood gabions were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be better care of plantation through elaborate fencing and regular care. The process of awareness raising and motivation of local community should be adopted in the project at regular intervals.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts, Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

The project authority did not take any effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

CHAPTER-5

THE CONSTRAINTS AND LIMITATIONS OF PROJECT.

There were a number of natural and antisropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

- 5.1 Unprotect Grazing by Loose Domestic Animals
 - Open grazing by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area. It led to stunted growth of plants, which survived even after facing these challenges.
- 5.2 Shortage of Frontline Forest Staff During 2012-13 of Project Work
 - Project authority reported that there was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation. However, fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and recently this problem was over. But impacted the programme adversely.
- 5.3 Low Wage Rate of Forest Department as Compared to Private Sector
 - Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.
- 5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate
 - Due to high rate of urbanization and industrialization in some part of the project area and in NCR region, there was high demand of labour force and hence the forest department had to face shortage of labour as reported.
- 5.5 Inadequate Infrastructure in the Division and Forest Ranges
 - At division level there was not a blg issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority, it impacted performance and quality of work as well as outcome of project.
- 5.6 Other Biotic and Natural Factors Impacting Survival of Plantation
 - Biotic and natural factors like wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

CHAPTER-6

SUGGESTIONS AND RECOMMENDATIONS

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy, it is as follows:

- 6.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals
- As discussed above time and again about the menace of grazing in most part of plantation area and hence it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
- The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2012-13 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.
- 6.6 Make Four Years of Protection and Maintenance Funding
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- 6.7 Make Monitoring and Evaluation Regular, Systematic and Effective
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF

and two DFOs. It head office is located at Kamal CAMPA programme along with other forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

6.8 Intensive Awareness Campaign to Motivate Local Community

There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long fasting impact among local community.

6.9 Organize Exposure Visit for Staff Member and Local Community

Project authority should organize exposure visits of forest staffs to advance nursery and
plantation areas within and state outside for better understanding and learning new ideas
and knowledge. These are important tools and methods of development process and also to
improve quality and outcome of the programme.

6.10 Introduce Practice and Concept of Earning Carbon Credits

- 4 The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.
- Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.11 Interview with Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation team interacted interviewed DFO Mewat (Mr. Harish Walia, Mob:+91-9416317400, Office.: +91-1267274701) along with RFOs, Foresters and Forest Guards. A brief summary of interviews is as follows.
- The DFO, Mr. Hansh Walia along with other project authority felt satisfaction overall outcome of the programme and progress of the programme conducted during 2012-13. With regard to selection plant species soil type, climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, atc. were main factors as replied by the. Most preferred plant species in the division were Bakain, Shisham, Arjun, Kikar, Balam Khira, Tun, Jamun, Reunjha, Atlanthus, Neem, Pipal, Ber, etc. Open grazing due high cattle pressure, rocky terrain, poor soil, erratic and low rain fall were main of factors plantation. Casualty. The project authority further said that all the field staffs were hard working and they owned responsibility and performed their duty well. There was need to work hard to improve the outcome of the programme.

6.12 Evaluator's Assessment

After field inspection and thorough interaction with DFO and other stakeholders of the programme along with verification of official records, it was concluded that above statements made by the project authority was true to a great extent. The project authority followed the stated guidelines of programme. Modern tools of mass media should be adopted for awareness campaigns for better impact. Internal monitoring and evaluation in the programme should be updated and carried out effectively.

Monitoring & Evaluation of CAMPA being Implemented by Mewerl Forest Division (Nuh) in Mewerl District of Rangene (2012-13). Photographs of Plantation Area: Mewat (Nuh) Forest Division (2012-13) She-1: Ana, Wark FP Jhilma, Range: FP Jhirka, Scheme: NPY/TP, Area: 5 RKM, No. of Plant: 1250 0(Mar. Padri, Shisham) Sha-2: Allpur Tigra, Reegath Sec.4 &5, Range: FP Uhirka Scheme: NPY/TP, Area: 22 RKM, No. of Plant: 5500 (Kikar, Shisham, Papri) Site-2; Alipur Tigra, Reegarti Sec.A &5, Range: FP Jivrka, Scheme: CA/TP, Area: 51 60 RKM, No. of Plant: 12950 Kilkar, Shisham. Bakain, Papri, etc.

SI. No	Type of land (Forest/Non-	Name of Scheme/	Name of Range/	Name of Site	Khasra No.	Plantatio n Month		vget Neved	Specing (m)	Name Of Species	No. of Plants	GPS Cox	ordinates	
	forest)	сопропен	Block/Beat .		KM/RD		Ha	RKM				Longitude	Latitude	
1	Z	3	4	5	6	7	9	9	10	11	12 -	13	14	
ı.	Forestland	СА/ПР	FP Jhirka/Allpur Tigra/Allpur Tigra	Alipur Tigra, Reseach	Sec.4 & 5	July	NA.	51.80	4,4	Kiker, Shisham, Bakain, Papn	12950	Starting Point N 27*44'296" E 076° 59'346"	Last Point N 27°44'313" E 076° 59'577"	
2.	Forestland	NPV/TP	FP Jhirka Alipur Tigra/Alipur Tigra	Allpur Tegra, Reegarh Sec.4 & 5	Reegarh	July	NA	22	4x4	Kikar, Shisham, Papri	5500	Starting Point N 27*44'413" E 076* 59'578"	Last Point N 27*44'509" E 076* 59'383"	
3.	forestland	NPV/TP	FP _Inicks/ FP Jhicks/Jhic	Jhir, Anaj Mandi, FP Jhirka	Sec.4 & 5	July	NA.	5	424	Shisham, Papri	1250	Starting Point N 27*45'50,1" E 076* 57'10,1"	Last Point N 27°45'43.4" E 076' 57'24.6"	
	Total	_	· _	· _	_	_	<u> </u>	78.80	<u> </u>		19800	· · -	5/245	

Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

Government of India, New Delhi



MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY PALWAL FOREST DIVISION IN PALWAL DISTRICT OF HARYANA

Duration of Evaluation: 2012-13

Final Report

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA



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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)
Government of India, New Delhi

MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED PALWAL FOREST DIVISION IN PALWAL DISTRICT OF HARYANA

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Submitted to
OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA
WAN-BHAWAN, C-18, SECTOR 6, PANCHKULA, WAYANA

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Director Locus Research & Consultants Pvt. Ltd. New Delhi, April, 2015



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Proface

(Palwal Forest Division)

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates, i.e. a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Huryana was established on March 3, 2010 for the purpose of management of finds, it will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation. Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoe CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryane of **Pakastal** forest division by PCCF office on professional terms and condition. Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been empanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

During 2012-13 a total 43,40 RKM land was treated under CAMPA by adopting CAMPA-Urban Porestry (30 RKM) and Compensatory and Afforestation (13.4 RKM) schemes of plantation at Palwa Division. Total expenditure incurred in the above activities was Rs. 14.66 lakh. A total of 0.108 lakh plant species of *Papri. Shisham, Jamun, Pilkhan, Silvernak, Chakrasia, Alestonia, Kajelia, Lesisionia, Molsri, etc.* were planted in the project at 22 places/sites.

Average survival percentage of plaants estimated was 67%. It was highest (70%) at Palwal-Hathin Road and it was only 65% at Hathin-Kondal Road under Hodal forest Range. Average height of plantation was 6 feet, Growth and health of plantation was good. Average grading awarded to the programme was 6.4 (on 1 to 10 scale), which was very good.

In the process of evaluation members of evaluation team interacted with field level forest staff and local community. At most places local people were happy with the efforts made by forest department. Plantation journal was missing but other project related records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

April, 2015

Dinesti K. Singh

Locus Research & Consultants Pvt. Ltd.

ACRONYMS

ACF Assistant Conservator of Forests

Afforestation

APCCF Additional Principal Chief Conservation of Forests

APOs Annual Plan of Operations
AR Artificial Regeneration
CA Compensatory Afforestation

CAMPA Compensatory Afforestation Fund Management and Planning Authority

CCF Chief Conservator of Forests
CEC Central Empowered Committee

CF Conservator of Forests
CN Compartment Number

CPT Continuous Protection Trench
DCF Deputy Conservator of Forests
DFO Divisional Forest Officer

DG-Forests Director General Forest
DWLO Divisional Wild Life Officer
ENF Establishment of Natural Forest

EPA Entry Point Activity

FDA Forest Development Agency
FGD Focus Group Discussion
FTC Forest and Tree Cover
GOI Government of India
GPS Global Positioning System

Ha Hectare

JFMC Joint Forest Management Committee

M & E Monitoring & Evaluation
MFP Minor Forest Produce

MOEF Ministry of Environment & Forests

NAEB National Afforestation & Eco-Development Board

NAP National Afforestation Programme NGO Non-Government Organization

NPV Net Present Value

NTFP Non-Timber Forest Produce
OBC Other Backward Castes

PCCF Principal Chief Conservator of Forests

PF Protected Forest

PRA Participatory Rural Appreisal
RDF Rehabilitation of Degraded Forest
RED Research and Evaluation Division

RF Reserved Forest
RFO Range Forest Officer
RKM Row Kilometer
RO Range Officer
SC Scheduled Castes
SF Social Forestry

SMC Soil & Moisture Conservation

ST Scheduled Tribes
TOR Terms of Reference
UF Unidass Forest

VFC Village Forest Committee

Local Name and Botanical Name of Plant Species

SL. No.	Common Name	Botanical Name
1.	Alestonia	Indian Mallow/ Devil Tree
2.	Arjun	Terminalia arjuna
3.	Jamun	Terminalia arjuna
4.	Blam Kheera	Kigelia pinnata
5.	Kikar	Acacia Arabica
6.	Molsri	Mimusops elengi
7.	Neem	Azadirecta indica
8.	Papri	Holoptelea integrifolia
9.	Pilkhan	Ficus virens
10.	Shisham	Dalbergia sissoo
11.	Silveroak	Grevillea robusta

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2012-13

	Pahwal Forest Division, Palwel District, Haryana	. <u>-</u>			
Average Grading on a Scale of 1 to 10					
Item/Aspact	Project Components	Value			
Quantitative Aspects	Physical	9			
	Financial	6			
Qualitative Aspects	Survival ·	7			
	Health of Plantation	6			
THE PROPERTY OF THE PROPERTY O	Maintenance	6			
	Sustainability	5			
JFM/Social Aspects	Dagree of Peoples' Participation	5			
	Satisfaction over Perceived Banefits by the Local Population	4			
Overall Grading (Very God	xd)	6.4			

Executive Summary

1.0 INTRODUCTION

Monitoring and evaluation of CAMPA programme of Palwal Forest Division in Palwal district was conducted in the month of April 19-22, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based agency. A total of 43.40 RKM land was treated by adopting CAMPA-Urban Forestry (30 RKM) and CA (13.4 RKM) schemes of plantation during 2012-13. A sample of 74.65% (32.40 RKM) was drawn for field inspection of plantation area and other assets of the project and to estimate survival percentage.

2.0 CAMPA: AN OVERVIEW

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestand diverted to non-forest uses. On 10th July 2009, Supreme Court Issued orders that there would be a CAMPA as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Panchkula.

3.0 OBJECTIVES OF THE CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - III. Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - v. Research, training and capacity building.

4.0 GEOGRAPHIC LOCATION /AREA OF MONITORING & EVALUATION

The study covered the elentire Palwal Forest Division in Palwal district of Haryana.

5.0 REFERENCE PERIOD

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2012-13.

6.0 NEED OF THE STUDY

 Moritoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 OBJECTIVES OF THE STUDY

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze fectors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management,

8.0 METHODOLOGY AND SAMPLE SELECTION

Simple random, systematic, stratified and purpositive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. 74.65% (32.40 RKM) area was sampled to assess the programme and estimate survival percentage. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, counting of plants in row was adopted.

9.0 PROFILE OF THE STUDY AREA

- Haryana was created on November 1, 1966 with seven districts. Subsequently 14 other districts were included through restructuring the previous ones. Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use pattern about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- Palwal is the 21^R district of Haryana state in northern India and Palwal city is its headquarter. It is shuated at a distance of 60 km from Delhi on the Delhi-Mathura highway (NH-2). As per India State of Forest Report-2011, Palwal district has 4.32% area under forest cover.

10.0 MAIN FINDINGS OF THE STUDY

10.1 QUANTITATIVE ANALYSIS AND FINDINGS

- 43.40 RKM land was treated under CAMPA by adopting CAMPA-Urban Forestry (30 RKM) and CA (13.4 RKM) schemes of plantation. It was implemented in both ranges namely Palwal and Hodal.
- Total expenditure was Rs. 14.66 takk against the target of same amount. Plantation work was carried out at 22 places.
- 0.108 lakh plant species of Papri, Shisham, Jamun, Pilkhan, Silveroak, Chakresia, Alestonia, Kajelia, Lesistonia, Moisri, etc. were planted.
- Average survival percentage of seedlings estimated was 67%. It was highest (70%) at Palwel-Hathin
 Road and 65% at Hathin-Kondal Road under Hodal forest Range. Average height of plantation was 6
 feet. Growth and health of plantation was good.

- Two types of registers were maintained namely cashbook and work book, DPO said that plantation journal would be prepared soon for all the plantation sites.
- Monitoring and Evaluation (M & E) of CAMPA along with other forestry programmes are conducted by a separate wing called M & E Wing. The last evaluation of state CAMPA Haryana of Palwal Forest Division was conducted in October 2014. It consists of one CF and two DCFs. Its head office is at Kamal in Haryana.
- An independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.
- Bank account of CAMPA Programme of Palwal forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Palwal branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 QUALITATIVE ANALYSIS AND FINDINGS

- Factors impacting choice of species were topography, soil type, dimate, rainfall, suitability in the area, economic value, preference by locals, etc. Project authority called the final shot in this regard.
- Improvement in soft moisture conservation was observed at most plantation sites of CAMPA.
- Limited natural regeneration of plant species in the plantation area was found. In urban and suburban zone it was negligible while on block forestland there were some glimpses of it.
- Quality of Work in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.
- Open and rash grazing by loose domestic animals, wild animals like, rabbits, blue bull and porcupine, destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of dimate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. impacted Growth and Survival of Plantation
- Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. Barbed wire and bush fencing were found at most plantation sites under protection of plantation. In urban areas brick/iron/wood gabions were also adopted along with barbed.
- Motivation and Technical Competence of Personnel Involved in the Project was found satisfactory. Range Forest Officers (RFO), foresters and forest guards were trained to tackle necessary work. Temporary/daily wages workers, cattle watchers, etc. were lacking these skills to deal with new challenges of the programme.
- Role of Local People in Project Work was far from satisfactory. There was low participation of local community in the programme. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA accrued both direct and indirect benefits in the project area. Additional geographical area came
 under forest cover. It helped in improving quality of ecology and environment as well as micro-climate of
 the area.
- Formation of SHG in the Project was optional for the project authority to provide additional benefits of community in the project area. There was no attempt at this from the project authority.

11.0 CONSTRAINTS AND LIMITATIONS OF THE PROJECT

 Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.

- There was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs.213 per day) was low as compared to local industrial establishments and urban areas (@Rs.400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season.
- Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area and in NCR region.
- Inadequate Infrastructure at range level offices impacted performance and quality of work as reported by some officials.
- Blotic and natural factors like wild animals like, rabbits, blue buils and porcupines, terrain, poor soil
 condition, extreme nature of climate (very high temperature in summer and low in winter), enation
 monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Measures should be taken to check grazing in the area. Stall feeding of domestic animals should be promoted among local community through regular awareness and motivation.
- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gablons of iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff.
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out regularly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, slogan shouting, rallies, etc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.

Chapter-1

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of Industries or roads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Honble Supreme Court for relief. On 10° July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hor CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Euriae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - iii. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an Interim arrangement to get CAMPA going, 10% of the accumulated principal
 amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- i. Conservation, protection, regeneration and management of existing forests;
- Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- iii. Compensatory afforestation:
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water, and
- v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement, it will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10th 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months, it is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monies from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act. 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - Grants or ald received if any:
 - . Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in Interest-bearing account(s) In nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee. Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members. Principal Secretary, Forests will be Member Secretary of the Governing Body. Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members. Principal Chief Conservator of Forests will be its Member Secretary.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-I), Chief Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works, it will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- State CAMPA is Intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. Important/mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1960 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government it may also take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - 4 Compensatory Afforestation
 - + Emirorimental services, which include:-
 - * Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, production.
 - Science, Research, Training and Capacity Building.
 - Environment Protection and Sustainable Forest Management.

1.5 Geographic Location of Monitoring & Evaluation

- The study area covers entire Palwat Forest Division in Palwal district of Haryana.
- 1.6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.e. 2012-13.

- 1 1 .

1.7 Components of the Project

- Main composignts of CAMPA are as follows:
 - ♣ People's Participation.
 - * Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - ♣ Monitoring and Evaluation of the programme.
 - ◆ Conservation and protection of forests, infrastructure development, wildlife conservation and protection, etc.
 - Extension and awareness
 - · Monitoring of the programme, etc.

1.8 Project Implementing Agency and Proposed Activities of the Programme

* A brief outline of the project agency and programme implementation is given below in table 1.2 %

Table 1.2: Implementing Agency and Proposed Activities of the Programme (2012-13)

Project (Implemen	iliuE '	Rency
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♦ District : Palwal
♦ Forest Division : Palwal

← Forest Circle : Gurgaon Circle, Gurgaon

♦ State : Haryena

Project Location

♦ Watersheds/Sub-watersheds : NA
 ♦ Development Blocks : NA

5 Forest Ranges (2) : 1.Palwal and 2. Hodel CAMPA work conducted in both of them

♦ Project Sites/Locations : 22 (Twenty).

Assets/ Infrastructure Development Activities s, if any

S NA

Preparation of Plantation Journal and Record Upkeep

• There was not any separate register or Plantation Journals for plantation site. However, the project authority maintained cash book, which had the details of plantation and other assets of the programme. During interaction with project authority, the evaluator discussed the importance and benefits of plantation journals.

Project Duration, Area and Cost

• Project Duration : 2012-13

♦ Project Area (78,8 RKM) : Target 43.40 RKM and 100 per cent achieved.

♦ Project Cost ! : Target: Rs. 14,66 fakh and Achievement: Rs. 14,66 lakh.

Proposed Strategies and Salient Features of the Project

No provision of VFC.

♦ Plantation was carried out under CAMPA-Urban Plantation and CA schemes

19 Need of the Study

Monitoring page evaluation of CAMPA assesses the process of programme implementation, its
programs programme implementation, if any from the stated guidelines, etc.

1.10 Scope of the Study

Scope of study is confined to Palwal Forest Division in Palwal district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements.
 - To evaluate performance of the programme.
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - · To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.
- Sample_Selection, Size_and_its_Distribution: A sample of 74.65% (32.40 RKM) was drawn for field inspection of plantation area and other assets of the project and to estimate survival percentage. The total target area of CAMPA was 43.40 RKM. To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting the plantation at random locations along with row counting keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the <u>Project Concept</u>, <u>Strategy Objectives and Methodology</u>.
 - Chapter 2 gives the <u>Profile of the Project Area and its Location</u>
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter Anglysis and Findings,
 - Chapter 5, deals with Project_Constraints_and_Limitations.
 - Chapter 6 provides Suggestions and Recommendations.

1.14 Limitations of the Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation, in-depth discussion with various stakeholders of the programme helped a lot in this, regard.

15 to 1

Profile of Project Area

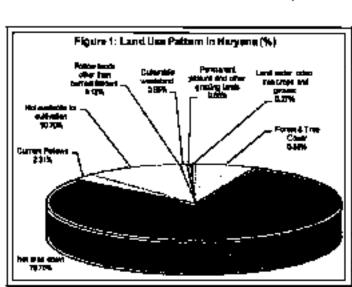
2.1 State Profile

- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6759 villages. On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala Division has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar.
- Gurgaon Division has six (6) districts namely Palwal, Mahendragam, Rewarl, and Palwal districts in its jurisdiction.
- Hisar: Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind. Hisar and Sirsa. districts.
- Rohtak Division also has five (5) districts namely Kamal, Jhajjar, Rohtak, Panipat, and Sonipat in its jurisdiction.

2.1.1Land Use Pattern of Haryana

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 Total geographical area of Haryana is 44212 sq. km which is 1.35% of the total area of the country. As per land use pattern about 3.64% (1395 sq km) area goes to forestland while area under tree cover is 3.16% (1395 sq. km). Thus forestland and tree cover together covers 6.80% of the state geographicall area.



 Haryana is an agricultural state and about 81.80% land is under cultivation/Net sown area followed by not available for cultivation (13.11%), Current fallows (2.40%). Permanent pasture and other grazing lands



(0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use (India State of Forest Report 2011, FSI Dehra Dun).

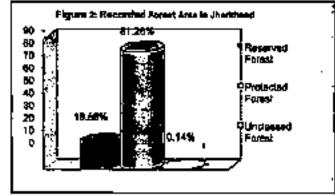
21.2Recorded Forest Area in Haryana

The recorded forests area in the state is 3.64% of its geographical area, Reserved Forests constitutes 1815.97%. Protected Forests

(74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected

Forests.

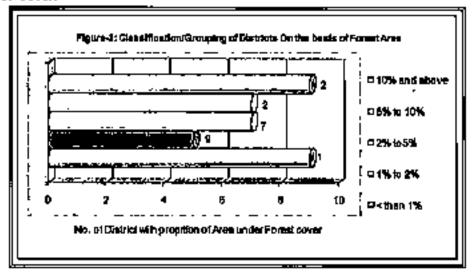
 An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries.
 This constitutes 0.69% of the state's geographical area. The state has taken an



initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor. *Refer Figure-2*.

2.1.3 District wise. Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1: Two districts namely Punchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group-2: Two districts namely Gurgaon (8.35%) and Palwal (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala, Palwal, Paridabad, Mahendragarh Bhiwarii, Rewari and Kaithal, Fall, in the category of 2% to 5% forest cover.



- Group 4 Whee districts namely Hisar, Jhagar, Karnal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat and they fall in group of 1% to 2% forest cover.
- Groint: One: district namely Fatehabad which has less than 1% area under forest cover.
 Refer Figure: 3 for further Information.

2.2 Profile of Pálwai District and Forest Division.

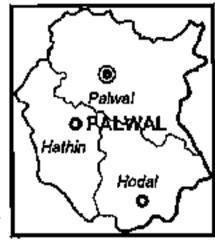
Palwal is the 21" district of Haryana state in northern India and Palwal city is its headquarter it is situated at a distance of 60 km from Delhi on the Delhi-Mathura highway (NH-2). It is a place of great antiquity, supposed to figure in the earliest Aryan traditions.

 $\psi_{i}(\gamma) = \phi(i - i \xi)$

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under the name of Apelava, part of the Pandava kingdom of Indraprastha, which was later restored by Vikramaditya.

Palwal is located at 28.15 N 77.33 E. It has an average elevation of 195 metres (639 ft). Palwal has many temples. Schools, Colleges and banks. It also contains developed areas like Housing board colony, New colony, Main market, shivapuri, Krishna colony, camp colony, Huda sector 2, etc. Government is also putting more emphases toward the economy and development of Palwal as it is situated in mid, of developed cities like Delhi, Gurgaon, Nolda, Farjdabad. Khair, Mathura at and about an equiv-distance, it consist agriculture based areas as well as commercial areas.



- The city Palwal got its name from a demon, "Palwasur" who ruled this place during the reign of Pandavas. He was killed by Balarama, elder brother of Shri Krishna. In his memory, every year a festival is organised in palwal which is known as "Baldev Chhat Ka Mela". There is also a temple dedicated to Balaram near Municipal Office chowk. Railway Station of Palwal is the place from where Mahatma Gandhi ji were arrested first time. A historical building "Gandhi Ashram" was made in the memory of Mahatma Gandhi Syed Yusuf Ali Palwali was a noble and rich man from Palwal during the short ruling period of Muhammad Azam Shah and died along with Muhammad Azam Shah on 19 June 1707 at the battle of Jajuwan:
- On 15 August, 1979, Gurgaon district was further divided to form a new Faridabad district, and Palwal became a part of it. Finally Palwal became the 21st district of Haryana on 15 August, 2008. According to the 2011 census Palwal district has a population of 10.40 lake. This gives it a ranking of 43rd in India (out of a total of 640)[8] The district has a population density of 761 inhabitants per square kilometre (1,970/sq mi). Its population growth gate over the decade 2001-2011 was 25.49%. Palwal has a sex ratio of 879 females for every 1000 males and a literacy rate of 70.3%.
- District comprises 282 Villages, 237 Gram Panchayats, 1 Municipal Council, 2 Municipal Committee, 3 Sub Divisions, 4 Development Blocks and 3 Tehsils. Sub Division is under the control of sub Divisional Magistrate white each Dev. Block is under the control of Block Development, and Panchayat Officer.

2.3 Forest Cover in Palwal District

According to India State of Forest Report 2011, Palwal district has 4.32% area under forest cover against 3.54% of state average. Main plant species found and adopted under CAMPA programme, in the district were Papri, Shisham, Jamun, Pilkhan, Silveroak, Chakresia, Alestonia, Kajelia, Lesistonia, Moisri, Neem, Pipal, Ber, Kikar, etc.

Quantitative Evaluation and Findings

3.1 Classification of Area Covered/Treated

 43.40 RKM land was treated under CAMPA by adopting CAMPA-Urban Forestry (30 RKM) and Compensatory Afforestation (13.4 RKM) schemes of plantation during 2012-13. It was implemented in both ranges of the division namely Palwal and Hodal. Refer table-3.1 for detailed information.





		. Table 3.1 Area Covered,	/Treated Und	er CAMPA		
SL No	Range	Plantation/Project Ste	Land Category	Scheme of Plantation	Area In RXVI	Y ear of Plantation
1,	Palwel	Panciwau Road, KM, 0-1, L&R	Road	<u> </u>		
2	Palwal	Agwanpur Road, KM, 1-2, L&R	Road	CAMPA (Urban	15	
3	Palmal	Asawta Road, XM. 0-2, L&R	Road	Forestryl-T.P.	1.5	.
4	Palwal	Police Line, NH-2, KM, 65-66, R/s.	Road	1		l
5	Hodal	Mini Sect/ate, Hathin	Ground	CAMPA (Urban Forestry)-T.P.	0.52]
6	Hodai	Govt. School, Hathin	Ground	-do-	11.4	1
7	Hodal	Bus Stand, Hathin	Ground	·do·	. 2	1
В	Hodal	Hatten-Ceblab Road, KM, 1-3, L&R	Road	·do-	1.08	1
Ŧ	Hodai	Hatten-Rindka Road, KM, 1-25, L&R	Road	-do-	0.58]
10	Hodel	Hatter-Kondal Road, kM, 2-2-5, L&R	Road	-do-	0.94	1
11	Hodai	Hathir-Lakhnaka Road, KM, C-1, L&R	Road	-do-	0.32	2012-13
12	Hodal	Hathin-Rarsika road, KM 1-2.5, LSR	Road	40-	0.795] 2015.7
13	Hodal	Palwai-Hathin road, KM, 16-17, L&R	Road	-do-	0.7]
14	Hodal	Garhi Vinoda Approach road km. 0-1.5, L&R	Road	-do-	0.52]
15	Hodal	Mandi road, Hathin, KM 0-0.5, L&R	Road	-do-	0.136	1
16	Hodal	Uttawar Distributory RD, 68-70, L&R	Canal	-do-	0.906	1
17	Hodal	S.T.P. Hodal	Ground	-do-	4.26	1
18	Hodal	Govt. Hospital, Hodal	Ground	-d o -	1.42	1
19	Hoodal	Water Supply Ground, Hodal	Ground	-do-	0.16]
20	Hodal	Arimat Husbandry Hospital, Hodal	Ground	·do·	0.16]
21	Hodal	Rasulpor-Kusak-Hassanpur road, KM, 24-31, LSR	Road	CA TP.	7	
22	Hodal	Hassanpur-Maholi road, KM, 1-5, L&R	Road	CA TP.	6.4	1
	<u> </u>	Sub Total	· 	•	43.40	

3.2 Physical and financial Target and Achievements

Total experience of the entire project during 2012-13 was Rs. 14.66 lake against the target of same amount in the programme plantation work was carried out at 22 places in both the forest ranges namely Palwall and Hodal and covered 43.40 RKM land. Refer table 3.2 for detail information.



	14. ₹4 Table-3.≥ Physical and Financial Target and Achievements (2012-13)						
SL.	Range	Plantation/Project Site	Physical (Area in RKM)	Financial (Rs. in lakh)		
No.	<u> </u>	Ref. 815 3	Target	Achievement	Target	Achievement	
1.		Parchwati Road, KML 0-1, LBR					
2		Agwanpur Road, KM 1-2, LSR	15	15	4.99	4.99	
3	Paheal (() Asama Road, Na. U-2, USK					
4	Pahwal .	Police Line, N81-2, KM, 65-66, R/s.]				
5	Hodel	Mini Sectrate, Hathin	0,52	0.52	0.17	0.17	
6		Govt. School, Hathin	0.4	0.4	0.13	0.13	
7		Bus Stand, Hathin	2	Ż	0.66	0.56	
B	'	Hathin-Gehlab Road, KM, 1-3, L&R	1.08	1.08	0.35	0.35	
9	_	Hathin-Rindka Road, KML 1-25, L&R	0.68	0.69	. 0.22	0.22	
10		Hathin-Kondal Road, kM. 2-25, L&R	0.94	0.94	031	0.31	
11		Hathin Lakhraka Road, KM 0-1, 1&R	0.32	0.32	D.11	0.11	
12		Hathin-Rensika road, KM, 1-2.5, L&R	0.796	0.795	0.26	0.26	
13	f	Pahval-Hathin road, KM, 16-17, L&R	0.7	0.7	0.23	0.23	
14	• .	Garti Vinoda Approach road km, 0-1,5, L&R	0.52	0.52	0.17	0.17	
_ 15		Manda road, Hathin, KM. 0-0.5, L&R	0.136	0.136	0.05	0.05	
15	_	Uttawar 06spy. RD. 68-70, L&R	0.908	0.908	0.30	0.30	
17		S.T.P. Hodget	4.26	4.26	1.48	1.48	
18		Govt. Hospital, Hodel	1.42	1.42	0,47	0.47	
19		Water Supply Ground, Hodal	0.16	0.16	0.05	0.05	
20		Animal Husbandry Hospital, Hodel	0.16	0.16	0.05	0.05	
21		Rasulpur-Kusak-Hassanpur road, KML 24-31, L&R	7	7	243	2.43	
22		Hassanpur-Maholi road, KM, 1-6, LRR	6.4	6.4	223	2,23	
		Sub Total	43,40	43.40	14.65	14,65	

3.3 Inventory/, List of Plantation

A total 0.108 lakh plant species of Papri, Shisham, Jamun, Pilkhan, Silveroak, Chakresia, Alestonia, Kajëlia, Lesistonia, Molsri, etc. were planted in the project at 22 places/ sites comprising 43.40 RKM of land. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

		Table-3.3: Inventory ∕	let of Prent	ation			
SL No	Range	Pleotation/Project Sus/Village Name	Scherpe /Model	Area (RXM)	No. of plants	Name of Plant Species	Year of Plantation
1	Pahval	Parithini Road, KM. 0-1, L&R	CAMPA				T
2	Pahval	Agrigod Villicad, KM. 1-2, L&R	CAMPA] ,,	3750	Sherman,	l
3	Pahval:	Asantantus, KM, O-2, LBR	CAMPA	15	3750	Chairresia.	l
4	Patral	Pollod Liber NH-2, KML 65-66, R/s.	CAMPA	1			l
5	Hodai	Min Section. Hathin	CAMPA	0.52	130		ĺ
6	Hodal	Govt/School, Hashin	CAMPA	0.4	100	1	ŀ
7	Hodal	BuşiStand, Hadin	CAMPA	ż	500	Silveroak,	
8	Hodal	Hathin:Gehlab Road, KML 1-3, L&R	CAMPA	1.08	270	Chakresu, Alestoria	
ģ	Hodel	Hathin-Rindka Road, KM, 1-2.5, L&R	CAMPA	0.58	170	Total Control	
10	Hode1	Hathin-Kondel Road, Idel. 2-2.5, L&R	CAMPA	0.94	235	1	
11	Hode	Hathin-Lakhnaka Road, KM, 0-1, L&R	CAMPA	0.32	80	Карейа	1
12	Hodel	Hathin-Rensika road, KM, 1-25, L&R	CAMPA	0.796	199	Kajeta	1
13	Hodet	Paleral Hatten road, KML 16-17, L&R	CAMPA	0.7	175	Kajella, Lestatonia	2012-1
14	Hoder	Cartii Virjotta Approach road km, 0-1,5, L&R	CAMPA	0.52	- 130	Kajelle, Lesistonia	i
15	Hode(Matridi, road, Hathin, KML 0-0.5, L&R	CAMPA	0.136	34	Lesissonia	ĺ
16	Hode(Uttawar/Distry, RD, 68-70, LBR	CAMPA	0.908	227	Kajello, Lesistonia	ĺ
17	Hodat	STP. Hodal.	САМРА	4,26	1065	Sistem, Columb	•
18	Hodat .	Gova Hospital, Hodel	CAMPA	1.42	355	Chakreso, Silveroak, Mokri	1
19	Hodal	Water Supply Ground, Hodal	CAMPA	0.16	49	Siverouk	1
20	Hodal	Arrimal Hosbandry Hospital, Hodal	CAMPA	0.16	40	Severoek]
21	Hodal	Rasilipur Krisak-Hassanpur road, KM, 24-31, L&R	, CX	7	1750	PMNers, Papri, Jamus, Sheshum	
22	Hodel	Hassampur Mahoti road, XM, 1-5, LSR	CA	6.4	1600	Pathan, Papil, Jamen, Shirbasa	
		Sub-Total	•	43.40	10850		1

- 3.4 Analysis of Sample Plantation and Survival Assessment
 - ♣ A sample of 4.65% (32.40 RKM) was drawn for field inspection of plantation area and other rassets and to estimate

survival percentage.

 Average survival percentage seedlings estimated was 67%. The survival percentage was highest (70%) at Palwal-Hathin Road and it. was only 65% at Hathin-Kondal Road under Hodal forest Range. Average height of plantation was 5 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.





		Table 3.4: Analysis of San	ple Plantation sites	and Ass	exament of	Survival		
SI No	Raunge	Plantation Site	Schane	Arten (ha)	No. of Plants	Plants Survived	Survival (%)	Year
ı	Pat-ai	Penchwati road, Agustour road, Asawata road, Police Line, Govi, Girls Collage Palval and Equit Palval City	Urben Foreury	15	3750	2550	68	
3	Hodel	Rasulpur Kusak-Hassampur road	<u> </u>	7	1750	1155	66	
3	Hodal	Bus Stand, Hather	CA-Urban /TP	2	500	335	69	
4	Hodal	Hatteni-Gehlav road	CA-Urban /TP	1.08	270	167	59	2012-13
5	Hodel	Hathin-Kondai road	CA-Urban /TP	0.94	235	153	65	
6	Hodai	Patwal-Mathin road	CA-Urban /TP	0.7	175	115	70	
7	Hodal	S.T.P., Hodal	CA-Urban /TP	4.26	1065	692	67	
8	Hodal	Govt. Hospital & Risidence	CA-Urban /TP	142	355	245	69	
		Total		324	8100	5409	67	

3.5 Registers/Records Maintained in the Project

- Two types of registers were maintained by project authority namely cashbook and work. book. DFO was of the view that plantation journal would be prepared soon for all the plantation sites conducted under CAMPA programme during 2012-13.
- 3.6 Monitoring and Evaluation System in the Project
 - ◆ Monitoring all Evaluation (M & E) system of CAMPA and other forestry programmes are conducted by a separate wing called M & E Wing. The last evaluation of state CAMPA Haryana of Raival Forest Division was conducted in October 2014. The M & E wing consists of one gonservator of Forests (CF) and two Deputy Conservator of Forests (DCF). Its head office is it want and in Haryana. It was also reported that M & E wing conducts evaluation of entire folestry programmes of the state along with CAMPA.

3.7 Involvement of Independent Agency for Evaluation of CAMPA

◆ The project authority reported that an independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12. Overall findings of the study were satisfactory as reported.

3.8 Bank Account Details and Flow of Funds.

 Bark account of CAMPA Programms of Palwal forest division was in the name of Divisional. Forest Officer. (DFO) with Corporation Bank at Palwal branch. Flow of funds was smooth as persinformation gathered from various stakeholders of the programme.

Qualitative Analysis and Findings

4.1 Preference and Basis of Species Selection

Main factors in the selection of plant species were nature of topography, soil type, climate, rainfail, suitability of species in the area, economic value of plant species, preference shown by local community, etc. However, the project authority took final decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

There was significant improvement in soll moisture conservation at all those places where plantation carried out under CAMPA programme. However, it was reported that due to limited provision of funds on this head of the programme did not provide much options for the project authority to carry forward additional work.

4.3 Assessment of Survival Percentage

Average- survival percentage of seedlings estimated was 67%. The survival percentage was highest (70%) at Palwal-Hathin Road and it was only 65% at Hathin-Kondal Road under Hodal forest Range. Average height of plantation was 6 feet. Growth and health of plantation was good. 0.25 ha (50meterx50meter) sample plot was adopted at random location along row counting of plantation to estimate survival percentage. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

There was little natural regeneration of plant species in the plantation area as observed during field inspection. In most part of urban and suburban zone natural regeneration was negligible while on block forestland in rural areas there were some glimpses of it due to presence of other species in and around the new plantation.

4.5 Quality of Work Observed During Field Visit

Overall quality of work especially plantation and creation of assets in the programme was
found in good shape at majority locations as observed during field inspection. Members of
evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Factors that impacted growth and survival of plantation were grazing by loose domestic animals, damage caused by wild animals like, rabbits, blue buil and porcupine, destruction caused by human beings, tough and unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc.

- 4.7 Protection and Maintenance of Plantation and Project Assets
 - There was barbed wire and bush fencing at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were also adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be provision of better care of plantation through elaborate fencing and protection as observed. The process of awareness raising and motivation of local community should be a regular phenomenon in the project.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their dury.

4.9 Role of Local People in Project Work

There was low participation of local community in the implementation, protection and maintenance of the programme. Forest officials organized interactive programmes from time in project area: However, it was not adequate and needed better efforts. Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

* CAMPA programme accrued both direct and indirect banefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of epology and environment as well as micro-climate of the area, which benefitted flora and faithat Seasonal wage employment during project activity also accrued benefits to local people, liwearning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

The project authority did not take any effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

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The Constraints and Limitations of Project

There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some obtable constraints and limitations of the project are discussed below.

5.1 Unprofest Grazing by Loose Domestic Animals.

Open grazing by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area, it led to stunted growth of plants, which survived even after facing these challenges.

5.2 Shortage of Frontline Forest Staff

 During 2012-13 of CAMPA programme implementation there was shortage of frontline staff like foresters and forest guards in the division. It impacted the programme adversely However, fresh recruitment was conducted in the entire state of Haryana to fill the vacant positions and this problem was solved.

5.3 Low Wage Rate of Forest Department as Compared to Private Sector

 Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and (imitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.

5.4 Shortage of Labour Force

Due to high rate of urbanization and industrialization in the project area as it comes under NCR region. There was high demand of labour force and hence the forest department had to face shortage during peak plantation season.

5.5 Inadequate Infrastructure in the Division and Forest Ranges.

At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority. It impacted performance and quality of work as well as outcome of project.

5.6 Other Bioticiand Natural Factors Impacting Survival of Plantation

Biotic and natural factors like wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soll condition, extreme nature of climato (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

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Suggestions and Recommendations

On the basis of interaction and interviews held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy. It is as follows:

- 6.1 Adopt Long Term Viable Measures to Control Grazing by Domestic Animals
- As discussed above time and again about the menace of grazing in most part of plantation area and lieffice it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue bulls and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
- The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation. It is suggested that in urban and suburban areas the project authority should adopt gabions of iron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
- All vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2012-13 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, etc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.
- 6.6 Makes Four Years of Protection and Maintenance Funding
- 4 There spould be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- 6.7 Make Monitoring and Evaluation Regular, Systematic and Effective
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about seguential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF

and two DFOs, it head office is located at Karnal CAMPA programme along with other forestry, projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

- 6.8 Intensive Awareness Campaign to Motivate Local Community
- There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukkad natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.
- 6.9 Organize Exposure Visit for Staff Member and Local Community
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge. These are important tools and methods of development process and also to improve quality, and outcome of the programme.

5.10 Introduce Practice and Concept of Earning Carbon Credits

The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes. Carbon credit is samed by planting new trees and maintaining the old ones. The system will help generate not only a healthier environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.11 Interview with Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation interacted interviewed DFO Palwal. (Mr. Sunder Sambharya, Mobil 919416776910, Office.: +911275248978) along with RFOs, Foresters and Forest Guards. A brief stimilitary of interviews is as follows.
- During the interaction the project authority showed satisfaction on overall outcome of the programme conducted during 2012-13. However, they had to face a number of challenges in present and maintenance of plantation due to natural and high biotic pressure. Most of the households keep animals and they leave for grazing in open areas. Most part of the division had poor soll locally called kalar/alkaline. Important plant species adopted in the CAMPA were Papa, Shisham, Jamun, Pilkhan, Silveroak, Chakresia, Alestonia, Kajelia, Lesistopia, Wolsn, etc.

6.12 Evaluator's Assessment

na nahibi ini

After field, inspection and interaction with DFO and other stakeholders of the programme and verification of official records, it was concluded that above statements made by the project authority was true to a great extent. The project authority followed the stated guidelines of programme to a great extent. Modern tools of mass media should be adopted for awareness campaigns, internal monitoring and evaluation of the programme should be streamlined and carried out effectively on regular basis.

in not to.

56.4



BI.	Type of	Name of	Name of	Final A.P.O. State CAMPA Name of Sito	Khasea	Plantation	_	Гепри	Beacing	Neme Of Species	4	000.5	
No.	land	School of	Report t	realine or allo	No.	Month		i ergen i blevedi	(m)	Name Of Sheore	No. of Plants	GP8 Coo	rdication
	(Forestin	сотролени			KWRD		Ha	PIKM				Longitude	Lettende
	2		4	5	В	7		-	10	11	12	13	14
1.	Road		Palwal	Pendwed Road, KV, Q L, USB	NA.	July	<u> </u>		4;4	<u> </u>	· ·	NA.	NA
2	Road	CAMPA (Urban	Palwal	Aparpur Acad, EM. 1-2, L&R	NA.	July	\vdash		4.44	Stvereat, Chakresia,	ا بر ا	Nά	NA
3.	Road	Forestry)-T.P.	Palwal	Asserts Road, KM 0-2, LBR	NA.	July	 	15	45:4	Alassonia	15	NA NA	NA.
4.	Road		Palwal	Police Line, NI+2, KM 65- 66, R/s.	NA.	July			4 <u>x</u> 4	1 1		NA.	NA.
5.	Ground	CAMPA (UH) For)-T.P.	Hodal	Mine Sectrace, Heilhin	NA.	July		0.52	4x4		130	NA	NA
6	Ground	- d□•	Hodal	Covt. School. Mr8=1	NA.	July		0.4	4x4	1	100	NA.	NA.
7	Ground	•do-	Hodai	Bus Stand, Hathin	₹.	July		Ż	4x4	Silveroek, Challerenia,	500	NA.	NA
A	Road	-00-	Hodal	Hatten-Gehleb Road, KIA 1: 3, LER	NA	-Jruly	Г	1.08	424	Atestoria.	270	NA	NA
9	Road	-do-	Hodad	Hatteln-Rincke Road, KML 1- 25, Lake	NJA	July		068	4%]	170	MA	MA
10	Road	-do-	Hodel	Hathin-kondal Road, MA 2- 25, L&R	k ¢A	July		0.94	414		235	744	NA
11	Road	-do-	Hodal	Hubby-Lakhaska Road, KM, 0-1, LAR	ЖA	July		0.32	4x4	Kajelia	80	MA	NA
12	Road	-dia-	Hodal	Helbir Ramaka road, KM 1- 2.5, LBR	AA	Ju d y		0.795	47.4	Kajata	199	NA	NA.
13	Road	-00-	Hodal	Palwal-Hatter rood, KM, 16- 17, L&R	NA.	July		0,7	434	Kajada, Laskaonia	175	WA NA	NA
14	Road	-do-	Hodal	Garbi Vineda Approach road km 0-13, t&R	ALA.	July		0.52	454	Kajelia, Lasissonia	130	NA NA	NA
15	Road	-do-	Hodal	Mandi road, Feether, King ()- 0.5, (SA	NA.	July		0136	4x4	Lesistonia	34	NA.	ŅĀ
16	Canal	-dio-	Hodal	Uttawar Distry, RD, 68-70, L&R	NA	July		0,908	4×4	Kapella, Lesistonia	227	NA.	N/A
17	Ground	-do-	Hodal	S.T.P. Hodel	NA.	July		4.26	4×4	Shintum, Chakresia	1065	NA	NA.
1B	Ground	-do-	Hodal	Gon. Heapital, Hodel	NA	July		1 47	4#4	Chaireafe, Sheroak, Malan	355	NA.	NA.
19	Ground	40	Hodal	Water Supply Ground, Hodal	NA.	July		0.16	4x4	Silversak	40	244	NA
20	Ground	-do-	Hodal	Animal Hashendry Hospital, Hodal	NA .	July		0.16	484	SD/e/OH	40	NA NA	NA
21	Road	CA T.P.	Hodal	Restrictor-Kustak-Hausangur road, Kild. 24-98, LBR	MÁ	July		7	484	Pikhan, Pepri Jamen, Sheham	1750	MA	NA
22	Road	ርል ተያ.	Hodal	Hustongur-Wahos road, Kil. 1-5, LSR	NA.	july		5.4	4x4	Pilkhan, Papn. Jannen, Shieham	1600	NA NA	NA.
	Total	_	-			_		43.40	_ "''	-	10850	_ +	<u></u>



Ministry of Environment & Forests (MOEF



MONITORING AND EVALUATION OF STATE CAMPA HARYANA BEING IMPLEMENTED BY REWARI FOREST DIVISION IN REWARI DISTRICT OF HARYANA

Duration of Evaluation: 2012-13

Final Report

Submitted to

OFFICE OF PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA VAN BHAWAN, C-18, SECTOR-6, PANCHKULA, HARYANA



Conducted by

LOCUS RESEARCH & CONSULTANTS PVT. LTD.

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Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

Ministry of Environment & Forests (MOEF)

Government of India, New Delhi

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Acknowledgement

The project titled "Monitoring and Evaluation of State CAMPA, Haryana being implemented by Rewari Forest Division in Rewari District of Haryana (2012-13)" was successfully completed. However, it would not have been possible without the kind support of many individuals and organizations working and associated with Locus Research & Consultants Pvt. Ltd. I would like to extend my sincere thanks to all of them.

First of all, I would like to express my sincere gratitude to PCCF, Haryana, Mr. C.R. Jotriwal and other officials at PCCF office especially DCF, Mr. Garg, Mr. Hembram and office staff Mr. D.P. Tyagi for reposing faith and awarding the honorable task of Monitoring & Evaluation of State CAMPA Haryana to Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency.

I also express my thanks to DFO, **Rewall-F**orest Division, Mr. R. Anand, RFOs of the concerned ranges and other forest staffs. My interaction with them helped in understanding different aspects of CAMPA implementation and its progress during 2012-13.

I take pride in acknowledging wonderful contribution of the resource persons working with Locus Research & Consultants Pvt. Ltd. I am highly indebted to Mr. BKP Sinha (IFS retd.), PCCF, UP for his guidance and constant support whenever I approach him. His crucial inputs from time to time helped me in finalization and fine tuning evaluation reports.

Last, but not least, I would like to express my gratitude to Dr. Lakshman P. Semwal, Ajay Rout, Prashant Kumar, Gaurav Kumar and Mr. Kaushal Kishor Singh for assisting me during field visit and collection of primary and secondary data, conducting interviews, data tabulation, drawing of diagrams and graphs, etc.

Dinesh K. Singh

Director

Locus Research & Consultants Pvt. Ltd.

New Delhi, April, 2015



Locus Research & Consultants Pvt. Ltd. 212, Vasant Apartments, Vasant Vihar New Delhi-110087

Preface

(Rewari Forest Division-2012-13)

Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the following mandates, i.e. a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a mechanism to State CAMPA to resolve issues of an inter-state or Centre-State

State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It will be registered as a Society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6, Panchkula.

The State CAMPA would presently receive montes collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

Locus Research & Consultants Pvt. Ltd., a Delhi based professional agency was assigned the task of Monitoring & Evaluation State CAMPA Haryana of Rewart Forest Division by PCCF office on professional terms and condition. Locus is registered under Companies Act of 1956. Since its inception on January 4, 2000, it has been ampanelled with NAEB/MOEF, GOI, New Delhi to conduct evaluation and monitoring of forestry programmes. Locus has a multi-disciplinary team of research professionals and subject experts with many years of experience.

Ouring 2012-13, Rewarl Forest Division treated 127.258 RKM land under CAMPA by adopting CA §7.268 RKM) and NPV (50 RKM) schemes of plantation. Total expenditure incurred in the above activities was Rs. 46.65 lakh. 0.32 lakh plant species of Alestona, Arjun, Chokraisa, D. Papri, Jamun, Leaua, Neem, P. Papri, Pipal, Shisham, Siras, Vad/Bargad, etc. were planted at 47 different sites.

Average survival percentage of plants estimated was 69%. It was highest (74%) at Govt. Sr. Sec. School of Bawal range and it was only 69% at Govt. High School, Kathuwas of Bawal range. Average height of plantation was 6 feet. Growth and health of plantation was good. Average grading awarded to the programme was 6.6 (on 1 to 10 scale), which was very good.

Members of evaluation team interacted with forest staff, other stakeholders and local community during field inspection. Local people were happy with the efforts made by forest department at most places. Plantation journal was missing but other records were found in good condition. Selection of species was made in accordance with local factors and needs of the community. Flow of funds was smooth. There was lack of awareness among the local people. Overall outcome of the programme was satisfactory as observed during field inspection.

Some important suggestions and recommendations have been made in this report and I hope that they would receive due consideration in future endeavours of the project implementation.

New Delhi

April, 2015

Dinesh K. Singh

👝 📐 Director

Locus Research & Consultants Pvt. Ltd.

	ACRONYMS
ACF	Assistant Conservator of Forests
Affo	Afforestation
APCCF	Additional Principal Chief Conservation of Forests
APOs	Annual Plan of Operations
AR	Artificial Regeneration
CA	Compansatory Afforestation
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CCF	Chief Conservator of Forests
] CEC	Central Empowered Committee
CF	Conservator of Forests
] בא	Compartment Number .
CPT-	Conuntious Protection Trench
DCF	Deputy Conservator of Forests
DFO	Divisional Forest Officer
DG-forests	Director General Forest
DW/LD	Divisional Wild Life Officer
ENF	Establishment of Natural Forest
EPA .	Entry Point Activity
FDA	Forest Development Agency
FGD	Facus Group Discussion
FTC	Forest and Tree Cover
GOI	Government of India
GPS	Global Positioning System
Ha JFMC	Hectare Joint Forest Management Committee
M & E	Monitoring & Evaluation
MEP	Minor Forest Produce
MOEF	Ministry of Environment & Forests
NAEB	National Afforestation & Eco-Development Board
NAP	National Afforestation Programme
NGO	Non-Government Organization
NPV	Ner Present Value
NTFP	Non-Timber Forest Produce
OBC	Other Backward Castes
PCCF	Principal Chief Conservator of Forests
PF	Protected Forest
PRA	Participatory Rural Appraisal
RDF	Rehabilitation of Degraded Forest
RED	Resparch and Evaluation Division
RF	Reserved Forest
RFO	Range Forest Officer
rkm	Row Kilometer
RO:	Range Officar
SC	Scheduled Castes
Ş F	Social Forestry
SAIC	Soil & Moisture Conservation
ST	Scheduled Tribes
TOR	Terms of Reference
UF uma	Un-class Forest
VFC	Village Forest Committee

2710000

Local Name and Botanical Name of Plant Species

SL. No.	Common Name	Botanical Name
1.	Alestonia	Indian Mallow/ Devil Tree
2.	Ber	Ziziphus mauritiana
3.	Chakraisa	Chukrasia tabulari
4,	Jamun	Terminalia arjuna
5,	Lesua	Cordia Bixa
6.	Neem	Azadirecta indica
7.	Papri	Holopteles integrifolis
8.	Pipal	Ficus religiosa
9.	Shisham	Dalbergia sissoo
10.	Siras	Albizia lebbeck
I 1 .	Vad/Bargad	Ficus benghalensis

GRADING AND EXECUTIVE SUMMARY

Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana-2012-13

Item/Aspect	Average Grading on a Scale of 1 to 10 Project Components	
Quantitative Aspects	Physical	Yalue
•	Financial	9
Qualitative Aspects	Survival	<u></u>
	Health of Plantation	
	Maintenance	 _
	Sustainability	
JFM/Social Aspects	Degree of Peoplas' Participation	<u> </u>
	Satisfaction over Perceived Benefits by the Local Population	- ÷
Overall Grading (Very Goo	d)	6.5

Executive Summary

1.0 Introduction

Monitoring and evaluation of CAMPA programme of Rewart Forest Division in Rewart district was conducted in the month of April 24-28, 2015 by Locus Research & Consultants Pvt. Ltd., a Delhi based agency. 127.68 RKM land was treated by adopting CA (77.268 RKM) and NPV (50 RKM) schemes of plantation during 2012-13. A sample of 54.65% (69.028 RKM) was drawn for field inspection of plantation area and other assets and to estimate survival percentage.

20 Campa: An Overview

- CAMPA meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. On 10th July 2009, Supreme Court (ssued orders that there would be a CAMPA as National Advisory Council under the chalmmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- State CAMPA, Haryana was established on March 3, 2010 for the purpose of management of funds. It
 will be registered as a Society by the State Government under the Societies Registration Act, 1860
 having its registered office at the office of Principal Chief Conservator of Forests, Van Bhawan, Sector-6,
 Panchkula.

3.0 Objectives Of The CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Iff. Compensatory afforestation;
 - Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
 - Research, training and capacity building.

4.0 Geographic Location / Area of Monitoring & Evaluation

The study covered the elentire Rewart Forest Division in Rewart district of Haryana.

5.0 Reference Perfod

The reference period of monitoring & evaluation of CAMPA is one year, i.e. 2012-13.

6.0 Reed of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation, its progress, impact, and deviation, if any in as per stated guidelines, etc.

7.0 Objectives of the Study

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting survival of plantation and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

8.0 Methodology and sample Selection

 Simple random, systematic, stratified and purposive sampling techniques were adopted for field inspection of the programme and to interview forest project authority and other stakeholders. 54.65% (69.028 RKM) area was sampled to assess the programme and estimate survival percentage. A sample plot of 0.25 ha (50meterx50meter) was adopted on block forest area to count saplings at random location to estimate survival percentage. On row /linear plantation, counting of plants in row was adopted.

9.0 Profile of the Study Area

- Haryana was created on November I, 1966 with seven districts. Subsequently 14 other districts were included through restructuring the previous ones. Total geographical area of Haryana is 44212 sq km which is 1.35% of the total area of the country. In terms of land use pattern about 3.64% (1395 sq km) area goes to forestland while tree cover in the state is 3.16% (1395 sq km). Thus forest and tree cover together covers 6.80% of the state.
- Rewart district is located in southern part of Haryana. It is 80 km away from New Delhi. It was accorded the status of a district by the government of Haryana on November 1, 1989. Rewarl district has 3.04% area under forest cover against 3.54% of state average,

10.0 Main Findings of the study

10.1 Quantitative Analysis and Findings

- 127.268 RKM land was treated under CAMPA at 47 places/sites by adopting CA (77.268 RKM) and NPV (50 RKM) schemes of plantation during 2012-13.
- Total expenditure during 2012-13 was Rs. 46,65 takin against the target of same amount.
- 0.32 laich plant species of Alustona, Arjun, B. Papri, Chokraisa, D. Papri, Jamun, Lesua, Neam, P. Papri, Pipal, Shisham, Siras, Vad/Bargad, etc. were planted in the project at 47 different sites.
- Average survival percentage of seedlings estimated was 69%. The highest survival percentage was 74%. at Govt. Sr. Sec. School of Bawai range and it was 69% at Govt. High School, Kathuwas of Bawai range. Average height of plantation was 6 feet. Growth and health of plantation was good.

- Cashbook and work registers were maintained in the project. Plantation journal was missing. DFO
 assured to prepare plantation journal of CAMPA plantation soon.
- Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate M & E Wing. It is conducted once or twice a year as reported by the project authority. The last evaluation of state CAMPA Haryana at Rewari forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF). Its head office is at Kamal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.
- An independent agency called Agricultural Finance Corporation Ltd. of Delhi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12, Overall findings of the study were satisfactory as reported.
- Bank account of CAMPA Programme of Rewart forest division was in the name of Divisional Forest Officer (DFC) with Corporation Bank at Rewart branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

10.2 Qualitative Analysis and Findings

- Factors impacting choice of species were topography, soil type, climate, rainfall, suitability in the area, economic value, preference by locals, etc. Project authority called the final shot in this regard.
- Improvement in soil moisture conservation was observed at most plantation sites of CAMPA.
- Limited natural regeneration of plant species in the plantation area was found. In urban and suburban zone it was negligible while on block forestland there were some glimpses of it.
- Quality of Work in the programme was found in good shape at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.
- Open and rash grazing by loose domestic animals, wild animals like, rabbits, blue bull and porcupine, destruction by human beings, ordavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer low in winter), erratic nature of monsoon rain, etc. impacted Growth and Survival of Plantation
- Foresters and forest guards were responsible for making regular rounds of plantation area in the process
 of protection and maintenance. Barbed wire and bush fending were found at most plantation sites under
 protection of plantation. In urban areas brick/iron/wood gabions were also adopted along with barbed.
- Motivation and Technical Competence of Personnel Involved in the Project was found satisfactory. Range Forest Officers (RFO), foresters and forest guards were trained to tackle necessary work. Temporary/daily wages workers, cattle watchers, etc. were tacking these skills to deal with new challenges of the programme.
- Role of Local People in Project Work was far from satisfactory. There was low participation of local community in the programme. Modern tools of mass media should be adopted for awareness and motivation of community.
- CAMPA accrued both direct and indirect benefits in the project area. Additional geographical area came under forest cover. It helped in improving quality of ecology and environment as well as micro-dimete of the area.
- Formation of SHG in the Project was optional for the project authority to provide additional benefits of community in the project area. There was no attempt at this front from the project authority.

11.0 Constraints and Limitations of the Project

- Grazing by loose domestic animals was a common problem in most part of the project area. It had adverse impact on survival and growth of plantation.
- There was shortage of frontiline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation, which impacted the programme adversely.
- Wage rate in forest department (@Rs,213 per day) was low as compared to local industrial establishments and urban areas (@Rs,400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season.
- Shortage of Labour Force was reported due to high rate of urbanization and industrialization in some part of the project area and in NCR region,
- Inadequate Infrastructure at range level offices Impacted performance and quality of work as reported by some officials.
- Biotic and natural factors like wild animals like, rabbits, blue buils and porcupines, terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), enable monsoon rain, rapid urbanization, etc. Impacted growth and survival of plantation.

12.0 SUGGESTIONS AND RECOMMENDATIONS

- Measures should be taken to check grazing in the area. Stall feeding of domestic animals should be promoted among local community through regular awareness and motivation.
- Project authority should make adequate provision of protection and maintenance of plantation by through multi-pronged strategy. Gabions of iron, brick, wood, etc. should be used in urban and suburban areas and barbed wire fencing in forest region and rural areas.
- Vacant posts of forest guards and foresters should be fulfilled on time by fresh recruitment of staff to ease the pressure. However, currently there was no shortage of such staff,
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage of plantation, theft to forest wealth, etc.
- Workshops and capacity building programmes should be organized by involving field level forest staffs, local community to learn new ideas and better knowledge.
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes. It should be carried out regularly
- There should be adoption of mass media tools like electronic media (mainly visual), leaflets, pamphiets, posters, wall writings, slogan shouting, railies, étc. for better impact among local community.
- Project authority should organize exposure visits of forest staffs to advance nursery and plantation areas within and state outside for better understanding and learning new ideas and knowledge.
- The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures. It should be introduced forthwith in the project area at village level for environment-related mass participatory programmes.

Project Concept, Strategy, Objective and Methodology

1.1 CAMPA: An Overview

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is meant to promote afforestation and regeneration activities as a way of compensating forestland diverted to non-forest uses. National CAMPA Advisory Council was established as per orders of The Honorable Supreme Court with the mandates, i.e.: a) lay down broad guidelines for State CAMPA, b) facilitate scientific, technological and other assistance that may be required by State CAMPA, c) make recommendations to State CAMPA based on a review of their plans and programmes and d) provide a machanism to State CAMPA to resolve issues of an inter-state or Centre-State character.
- About 23% geographical area of India is under forest cover with a number of diverse forest types and reserved areas designated as National Parks and Wildlife Sanctuaries. Forests meet the livelihood needs of people living in and adjoining area in about 1.73 lakh villages. Forests also act as carbon sinks and regulators of water regime. Many development and industrial projects such as erection of dams, mining, and construction of industries or reads require diversion of forestland. Any project proponent, government or private must apply for forest clearance from Ministry of Environment & Forests (MoEF), before the diversion of land takes place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forestland is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs approached The Hon'ble Supreme Court for relief. On 10th July 2009, Supreme Court issued orders that there would be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.
- The Supreme Court passed an order on the CAMPA issue in response to an affidavit filed by the Ministry of Environment & Forests, along with a report by the Ad-Hoc CAMPA Committee and endorsed by the Central Empowered Committee (CEC). These orders finally resolved a crucial matter that had lay frozen for almost 7 years. Since October 2002, about Rs. 9,900 crore of principal amount and Rs.1,300 crore of interest amount has accumulated under the CAMPA account. This is money lying in banks and to be used for compensatory afforestation and other related ecological security enhancing purposes. MoEF, CEC, the Attorney General and the Amicus Curiae of the Supreme Court have been engaged in discussions to break the 7-year deadlock over utilization of CAMPA funds. The July 10th 2009 Supreme Court order directs the following:
- That the State CAMPA guidelines prepared by the MoEF for utilizing CAMPA funds should be notified and implemented. These guidelines envisaged the following:
 - i. A state-level CAMPA Governing Body under the chairmanship of the CM;
 - ii. A state-level CAMPA Steering Committee under the chairmanship of Chief Secretary; and
 - iii. A state-level CAMPA Executive Committee under the chairmanship of the Principal Chief Conservator of Forests.
- There will be a National CAMPA Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation.
- That as an interim arrangement to get CAMPA going, 10% of the accumulated principal
 amount will be released per year (for the next five years) by the Ad-Hoc CAMPA Authority

set up by the Supreme Court Order of May 2006 under the chairmanship of DG-Forests to State CAMPAs. This money will be used for projects identified by the State CAMPA that form part of the state forest department's Annual Plan of Operations (APOs). The State CAMPA guidelines approved by the Supreme Court seek to promote the following:

- i. Conservation, protection, regeneration and management of existing forests;
- ii. Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- iii. Compensatory afforestation:
- iv. Environmental services including provision of goods such as non-timber forest products, fuel, fodder and water; and
- v. Research, training and capacity building.
- The Ad-Hoc CAMPA, as the name suggests, is a purely temporary arrangement. It will liquidate itself once all systems in states are in place and CAMPA has become fully functional in the framework contained in the Supreme Court Orders of July 10° 2009.
- The CEC has already approached the Supreme Court for liquidating the Ad-Hoc CAMPA. The Supreme Court has ordered that the CEC submit progress reports once every six months. It is reasonable to assume that with the Centre and states working together cohesively to implement the Supreme Court orders of July 10th 2009, the Ad-Hoc CAMPA will wind up within the next six to twelve months and State CAMPAs will take over completely.

1.2 Establishment of State CAMPA

- The details of establishment of State CAMPA are as follows:
- a) The state government may establish the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State. The funds/monies received from various sources would be credited into the account of State CAMPA. It is as follows:
 - The amount would be transferred to it by the ad-hoc CAMPA.
 - Receipt of all monles from user agencies towards compensatory afforestation, additional
 compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV),
 Catchment Area Treatment Plan or any money for compliance of conditions stipulated by
 the Central Government while according approval under the provisions of the Forest
 (Conservation) Act, 1980;
 - The unspent funds already realized by States from user agencies and not transferred yet to the Adhec Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
 - The funds recoverable from user agencies in cases where forest land diverted falls within
 the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife
 (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity
 and wildlife, which would be maintained under a separate head; and
 - Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made there under and in pursuance of the judgment of the Supreme Court dated the 29th October 2002 from user agencies.
- b) The state government may also credit to the State CAMPA
 - Grants or aid received if any;
 - Any loan taken by the Authority or any borrowings made by it; and
 - Any other sums received by the Authority by way of benefaction, gift or donations.

c) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

1.3 State CAMPA, Haryana

- On March 3, 2010, Government of Haryana constituted the State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), Haryana for the purpose of management of funds. It was registered as a society by the State Government under the Societies Registration Act, 1860 having its registered office at the office of Principal Chief Conservator of Forests (PCCF), Van Bhawan, Sector-6, Panchkula, Haryana.
- State CAMPA, Haryana will have three bodies, namely a) Governing Body, b) Steering Committee and c) Executive Committee, Chief Minister, Haryana will be the Chairperson of the Governing Body of the State CAMPA, Haryana and Minister of Forests, Minister of Finance, Chief Secretary, Principal Secretary (Finance), Principal Chief Conservator of Forests and Chief Wildlife Warden will be its Members, Principal Secretary, Forests will be Member Secretary of the Governing Body, Chief Secretary, Haryana will be the Chairperson of the Steering Committee and Principal Secretary (Finance), Principal Secretary (Forests), Chief Wildlife Warden, Conservator of Forests (FC) and Nodal Officer (FCA), Haryana, representative of Ministry of Environment and Forests, Government of India, two eminent NGOs nominated by the State Government for a period of two years will be its Members, Principal Chief Conservator of Forests will be its Members. Principal Chief Conservator of Forests will be its Members.
- Principal Chief Conservator of Forests (PCCF), Haryana will be the Chairperson of the Executive Committee and Additional PCCF (Forestry), Chief Wildlife Warden, Chief Conservator of Forests (Protection-I), Chief Conservator of Forests (Planning), representative of Finance Department not below the rank of Additional Secretary and two eminent NGOs nominated by the state government for a period of two years will be its members. Conservator of Forests (FC) and Nodal Officer (FCA) will be its Member Secretary.
- State CAMPA, Haryana will work as an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. It will promote conservation, protection, regeneration and management of forests; conservation, protection and management of wildlife and its habitat within and outside Protected Areas including the consolidation of Protected Areas; Compensatory Afforestation, Acquisition of suitable non-forest lands for afforestation/regeneration to compensate the net loss in forest area, environmental services, plantation activities outside the forests including agro-forestry and farm-forestry to enhance the green cover of the State and forestry research, training and capacity building of forest officials including other stakeholders involved in the protection of forests and wildlife.
- State CAMPA is intended to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works, important mechanisms of CAMPA are as follows:
 - The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.
 - The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife

conservation and protection and other related activities and for matters connected therewith or incidental thereto.

- State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.
- State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.
- The State CAMPA may decide to utilize a minor part of its funds for contractual
 angagement of personnel wherever there is shortage of personnel. This should be done
 cautiously to avoid recurring revenue expenditure on the State Government. It may also
 take up State-specific activity relevant to the State, in keeping with the core objectives.
- The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

1.4 Objectives of the Programme/CAMPA

- Important objectives of CAMPA are as follows:
 - Conservation, protection, regeneration and management of existing natural forests;
 - Conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
 - Compensatory Afforestation
 - Environmental services, which include:-
 - Provision of goods such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
 - Regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
 - Non-material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
 - Supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
 - Science, Research, Training and Capacity Building.
 - Environment Protection and Sustainable Forest Management.

1.5 Geographic Location of Monitoring & Evaluation

- The study area covers the entire Rewari Forest Division in Rewari district of Haryana.
- 1.6 Reference Period of Monitoring & Evaluation
 - Reference period of monitoring & evaluation is one year, i.a. 2012-13.

1.7 Components of the Project

- Main components of CAMPA are as follows:
 - People's Participation
 - Afforestation work through Compensatory Afforestation (CA) and Net Present value (NPV)
 - Monitoring and Evaluation of the programme
 - Conservation and protection of forests, infrastructure development, wildlife conservation and protection, etc.
 - Extension and awareness
 - Monitoring of the programme, etc.
- 1.8 Project implementing Agency and Proposed Activities of the Programme
 - A brief outline of the project agency and programme implementation is given below in table-1,2

Table 1.2: Implementing Agency and Proposed Activities of the Programme

	tenting Agency and Proposed Activities of the Programme					
Project Implementing Agency						
◆ District	: Rewari					
→ Forest Division	: Rowari					
◆ Forest Circle	: Gurgaon Circle, Gurgaon					
◆ State	: Haryana					
Project Location						
 Watersheds/Sub-watersheds 	; NA					
 Development Blacks 	: NA					
◆ Forest Ranges (3)	: 1.Rewarl, 2. Bawel and 3. Nahar. CAMPA work conducted in all of them.					
◆ Project Sites/Locations	: 47 (Forty Savan) .					
Assets/ Infrastructure Developme	nt Activities s, if any					
→ NA						
Preparation of Plantation Journal	and Record Unkeep					
 There was not any separate 	register or Plantation journals for plantation site. However, the project					
and in the manual field care Dol	ok, which had the details of plantation and other assets of the community					
non-unit innocuatoribit aviitu bubli	ect authority, the evaluator discussed the importance and benefits of					
previous journals.						
Project Duration, Area and Cost	· · · · · · · · · · · · · · · · · · ·					
◆ Project Duration	: 2012-13					
♦ Project Area (78.5 RKM)	: Target: 127.268 RKM (CA-77.268 RKM and MPV-50 RKM Schemes). It					
	was achieved cent per cent.					
◆ Project Cost	: Target: Rs.46.65 lakh and achievement: Rs. 46.65 lakh					
Proposed Strategies and Sallent F	eatures of the Project					
 There is no provision of VFC 						
 Plantation was carried out under NPV and CA schemes/components 						
	<u>- · — — — — — — — — — — — — — — — — — — </u>					

1.9 Need of the Study

 Monitoring & evaluation of CAMPA assesses the process of programme implementation and its progress, impact, deviation, if any from the stated guidelines.

1.10 Scope of the Study

Scope of study is confined to Rewari Forest Division in Rewart district of Haryana.

1.11 Objectives of Monitoring & Evaluation

- Main objectives of the monitoring & evaluation are as follows:
 - To assess physical and financial targets and achievements
 - To evaluate performance of the programme
 - To estimate of survival percentage of plant species adopted in the project.
 - To analyze factors impacting plantation survival and suggest remedial measures.
 - To assess peoples' participation and assets created
 - To assess the direct and indirect benefits and impact of the programme.
 - To provide recommendations for improvement in future implementation and management.

1.12 Research Methodology and Sampling Procedure of the Study

- Research methodology forms both desk review and field Studies. Both quantitative and qualitative data would be gathered from primary and secondary sources.
- A combination of simple random, systematic, stratified and purposive sampling techniques were adopted wherever required in the selection of plantation sites, villages, forest officials and community leader for conducting interviews, etc.
- Sample Selection, Size and its Distribution: A sample of 54.24% (69.028 RKM) was drawn from 12 sites for field inspection of plantation and to estimate survival percentage of plantation. It was drawn from all the three ranges of the division and two plantation schemes (CA and NPV).
- To estimate survival rate of plantation a sample unit/plot/grid of 0.25 ha (50mx50m) was adopted for counting the plantation at random locations along with row counting keeping view of various factors. Field experience of evaluator, and discussion with stakeholders helped in this regard.

1.13 Chapter-wise organization of Report

- The report is divided into six chapters, it is as follows:
 - Chapter-1 introduces the Project Concept, Strategy Objectives and Methodology.
 - Chapter-2 gives the <u>Profile of the Project Area and its Location</u>
 - Chapter-3 discusses Quantitative Analysis and Findings of the Study.
 - Chapter-4 gives Qualitative Analysis and Findings,
 - Chapter-5 deals with <u>Project Constraints and Limitations</u>
 - Chapter-6 provides <u>Suggestions</u> and <u>Recommendations</u>.

1.14 Limitations of the Study

Members of evaluation team faced difficulty in finding respondents at most places during field inspection. It was also observed that at many occasions respondents were least interested to reply our query. It showed that they lacked necessary awareness about the issues related to forestry and environment. It impacted the collection of necessary information with regard to CAMPA. However, members of evaluation team put adequate efforts to minimize these limitations and collected vital information keeping in view of prevailing situation. In-depth discussion with various stakeholders of the programme helped a lot in this regard.

Profile of Project Area

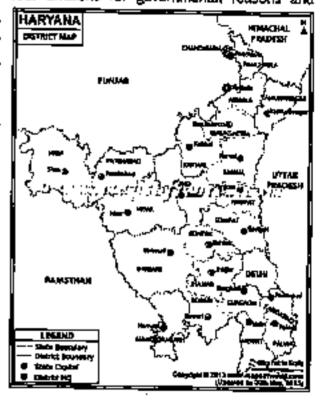
2.1 State Profile

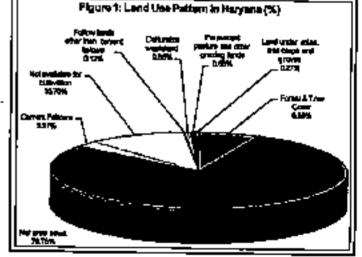
- The state of Haryana has been grouped into four divisions for governmental reasons and they are Rohtak Division, Ambala Division, Hisar Division and Gurgaon Division. The state comprises 47 subdivisions, 21 districts, 45 sub-tehsils, 67 tehsils/towns and 116 blocks. The state is home to 81 cities and 6759 villages, On November 1, 1966 the state of Haryana was created and there were only seven districts in the state. Subsequently, 14 other districts were carved out through restructuring the previous ones. The state has four administrative divisions. Division wise classification of districts are as follows:
- Ambala Division has five (5) districts namely Kaithal, Ambala, Panchkula, Kurukshetra, and Yamunanagar,
- Gungaon, Division has six (6) districts namely Rewarl. Mahendragarh. Gungaon, Rewari, and Rewari districts in its jurisdiction.
- Hisar Division consists of five (5) districts namely Fatehabad, Bhiwani, Jind, Hisar and Sirsa. districts.

 Rohtak Division also has five (5) districts namely Karnal, Jhajjar, Rohtak, Panipat, and Sonipat In its jurisdiction.

2.1.1 Land Use Pattern of Haryana

 Total geographical area of Haryana is 44212 sq km which is 1,35% of the total area of the country. As per landuse pattern about 3.64% (1395 sq km) area goes to forestiand while area under tree cover is 3.16% (1395 sq km). Thus forestland and tree cover together covers 6,80% of the state geographical area.

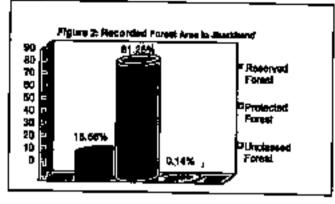




 Haryana is an agricultural state and about 81.80% land is under cuitivation/Net sown area. followed by not available for cultivation (13.11%), Current fallows (2.40%). Permanent pasture and other grazing lands (0.69%), Culturable wasteland (0.67%), Land under misc, tree crops and groves (0.28%), Fallow lands other than current fallows (0.12%), etc. See Figure -1 as given below. Source: Land Use findle State of Forest Report 2011, FSI Debra Duni.

2.1.2 Recorded Forest Area in Haryana

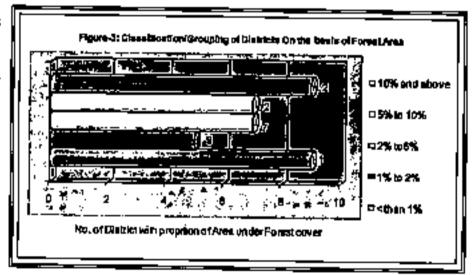
- The recorded forests area in the state is 3.54% of its geographical area, Reserved Forests constitutes 15.97%, Protected Forests (74.28%) and Un-classed Forests (9.75%). Most of the road side plantations in the state have been notified as Protected Forests.
- An area of 303.92 sq. km is being managed as protected area under two National Parks and 8 Wildlife Sanctuaries. This constitutes 0.69% of the state's geographical area. The



0.69% of the state's geographical area. The state has taken an initiative in conserving the depleting population of vultures by establishing a conservation center at Pinjor, Refer Figure-2

2.1,3District wise Distribution of Forest Area in Haryana

- Distribution of forestland among districts (21) of the state is highly uneven. The entire districts of the state have been clubbed into five groups based on area under forest cover. Group-1: Two districts namely Panchkula (8.35%) and Yamunanagar (10.97%) have more than 10% area under forest cover.
- Group-2: Two districts namely Gurgaon (8.35%) and Rewari (8.35%) and fall in the category of 5% to 10% forest cover.
- Group-3: Seven districts namely Ambala, Palwal, Faridabad, Mahendragarh Bhiwani, Rewari and Kaithal fall in the category of 2% to 5% forest cover.



- Group-4: Nine districts namely Hisar, Jhajjar, Kamal, Kurukshetra, Panipat, Rohtak, Sirsa, and Sonipat and they fall in group of 1% to 2% forest cover.
- Group-5: One district namely Fatehabad which has less than 1% area under forest cover. Refer Figure-3 for further information.

2.2 Profile of Rewari District and Forest Division

Geographic Location & Topography: Rewart district is located in southern part of Haryana, it is 60 km away from New Delhi, it was accorded the status of a district by the government of Haryana on November 1, 1989. As per census 2011 it is the second least populous district of Haryana (out of 21) after Panchkula. Rewart, which forms a part of the National.

Capital Region, is adjacent to Rajasthan and, therefore, has dust storms in summer. Rugged hilly terrain of Aravali ranges as well as sand dunes in the district affect the city's climate,

 Climate: Rewari has dry and semi-arid climate, mean minimum maximum temperature range from 6°C to 41°C during January (winter) and May-June (summer) respectively. The summer temperature can go up to 46°C from May to July. Winter is from November to February and the temperature can fall to 2°C in December and January. The temperature was recorded as 0°C on 12 January, 2012 and 31 January, 2012. Rainy season is from July to September. A little rain is experienced during winter also. Average annual rainfall in Rewari city is 553 millimeters (21.8 (nch). Rainfed Sahibi River that originates Rajasthan passes through Rewari and



falls in Najafgarh take at Delhi. Extremely heavy rains in 1978 flooded Sahibi and Rewari, which in turn flooded Delhi. A barrage was then constructed at Masani village on junction of NH8 and NH718 to impound the water coming from Rajasthan. However, the barrage has hardly collected any water as the rains have not been heavy for the last 30 years and Rajasthan has built check-dams upstream on Sahibi. A canal has been constructed in 2009 to carry excess rain water to the barrage to recharge the ground drinking water for Rewari town. The canal takes off from the existing canal near the Kendriya Vidyalaya, Rewari.

Demography: As of 2011, Rewarl city had a population of 140,864 (compared to 100,946 in 2001 and 75,342 in 1991) showing 40% growth in 2001-11 decade against 34% growth in 1991-2001 decade. Male constituted 53% and females 47% of the population. Overall sex ratio (female/male) was 885 compared to national average 940, and in the 0 to 6 year age group was 785 compared to national average 918. Rewarl had an average literacy rate of 78%, higher than the national average of 54.3% for entire population and 74.0% for population excluding 0 to 6 year age group in 2011.[15] Male literacy is 83%, and female literacy is 73% (compared to 79% and 67% respectively in 2001). In Rewarl 11.3% of the population is under six years of age.

2.3 Forest Cover in Rewarl District

 According to India State of Forest Report-2011, Rewarl district has 3.04% area under forest cover against 3.54% of state average, Main plant species found adopted under CAMPA programme in the district were Alestona, Arjun, B. Papri, Chokraisa, D. Papri, Jamun, Lesua, Neem, P. Papri, Pipal, Shisham, Siras, Vad/Bargad, etc.

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Quantitative Evaluation and Findings

3.1 Classification of Area Covered/Treated

2 127.268 RKM land was treated under CAMPA at 47 places/sites by adopting CA (77.268 RKM) and NPV (50 RKM) schemes of plantation during 2012-13. It was implemented in all three ranges of the division namely Rewari (97.268 RKM), Nahar (15 RKM) and Bawal (15 RKM). Refer table-3,1 for detailed information.

Section Sect	_		Jable 31 Area cov	ered/Treated under	CALETA			
See		_	Plantation/Project. Size		Scheme of		Year of	
Beyen SF Jinksou Comp. No. 7 RF Campa CA 20 2012-13	_			PF- Sec 4 & 5			3/17 2-1 2	
Second Ph. Jimbaly, Comp. No. 7 RF Campa CA 20 2012-13			RF Jitabua Comp. No. 1 & 2					
Parent Central School, Konskess Ground Campa NPV 48 2012-13				RF .				
Description			Central School Konsiwas	Ground				
Description Court Boys Sr. Sec. School Revist Ground Campa NPV Q.8 2012-13			Govt. Primary School, Kalulos, Manchiya					
Researd Cov. 19thary School, Rapbora Ground Cargon NPV Q.4 2012-13 9 Reward Govt. Sr. Sec. School, Kharishara Ground Cargon NPV Q.2 2012-13 10 Reward Govt. Sr. Sec. School, Klarishara Ground Campa NPV Q.2 2012-13 11 Reward Govt. Primary School, Rhythal Thather Ground Campa NPV Q.5 2012-13 12 Reward Govt. Primary School, Rhythal Thather Ground Campa NPV Q.6 2012-13 13 Reward Govt. Primary School, Rappacen Ground Campa NPV Q.6 2012-13 14 Reward Govt. High School, Bandada Ground Campa NPV Q.6 2012-13 15 Reward Govt. High School, Bandada Ground Campa NPV Q.7 2012-13 16 Reward Govt. Frimary School, Mariana Ahir Ground Campa NPV Q.7 2012-13 17 Roward Govt. Frimary School, Mayan Ground Campa NPV Q.5			Govt. Boys Sr. Sec. School Revent					
Rewart Govt, Sr. Sec. School, Kharkharp Ground Campa NPV 0.4 2012-13			Govi. Primary School, Rajoura	Ground			2012-13	
10 Revent Govt. Frimary School, Rhuthal Phather Ground Campa NPV 0.52 2012-13 12 Revent Govt. Frimary School, Bhuthal Phather Ground Campa NPV 0.68 2012-13 13 Revent Govt. Frimary School, Nayagaon Ground Campa NPV 0.8 2012-13 14 Revent Govt. High School, Basdada Ground Campa NPV 1 2012-13 15 Raward Govt. High School, Basdada Ground Campa NPV 0.5 2012-13 16 Revent Govt. High School, Basdada Ground Campa NPV 0.5 2012-13 16 Revent Govt. Frimary School, Nayan Ground Campa NPV 0.5 2012-13 17 Revent Govt. Primary School, Nargia Dhari Ground Campa NPV 0.5 2012-13 18 Revent Govt. Primary School, Nargia Dhari Ground Campa NPV 0.5 2012-13 19 Revent Govt. High School, Padia Ground Campa NPV 0.5 2012-13 20 Revent Govt. High School, Padia Ground Campa NPV 0.5 2012-13 21 Revent Govt. High School, Padia Ground Campa NPV 0.5 2012-13 22 Revent Sha Section 4 & 5 Ground Campa NPV 0.5 2012-13 23 Nahar Govt. Sr. Sec. School Bhakil Ground Campa NPV 0.5 2012-13 24 Natur Govt. Gri Sr. Sec. School Juddi Ground Campa NPV 0.5 2012-13 25 Nahar Govt. Gri Sr. Sec. School Juddi Ground Campa NPV 0.5 2012-13 26 Nahar Govt. Gri Sr. Sec. School Juddi Ground Campa NPV 7 2012-13 27 Bawat Govt. Gri Sr. Sec. School, Revent Ground Campa NPV 7 2012-13 28 Biwell Govt. Middle School, Kanalum Ground Campa NPV 7 2012-13 29 Biwell Govt. Middle School, Kanalum Ground Campa NPV 1 2012-13 30 Bawat Govt. Sr. Sec. School Regent Ground Campa NPV 1 2012-13 31 Bawat Govt. Sr. Sec. School Regent Ground Campa NPV 1 2012-13 32 Bawat Govt. Middle School Suhari Ground Campa NPV 1 2012-13 33 Bawat Govt. Middle School Suhari Ground Campa NPV 1 2012-13 34 Bawat Govt. High School Suhari			Nandrampurbas	Ground		_	2012-13	
10 Revent Govt. Frinary School, Riskodia Ground Campa NPV 0.52 2012-13 12 Revent Govt. Frinary School, Bhurthal Phather Ground Campa NPV 0.58 2012-13 13 Revent Govt. Frinary School, Nayagaon Ground Campa NPV 0.8 2012-13 14 Revent Govt. Figh School, Baskuda Ground Campa NPV 1 2012-13 15 Raward Govt. High School, Baskuda Ground Campa NPV 0.5 2012-13 16 Revent Govt. Frinary School, Gobbya Ground Campa NPV 0.5 2012-13 16 Revent Govt. Frinary School, Ramata Ahir Ground Campa NPV 0.5 2012-13 17 Revent Govt. Frinary School, Nargia Dhari Ground Campa NPV 0.5 2012-13 18 Revent Govt. Frinary School, Nargia Dhari Ground Campa NPV 0.5 2012-13 19 Revent Govt. Frinary School, Nargia Dhari Ground Campa NPV 0.5 2012-13 19 Revent Govt. High School, Padia Ground Campa NPV 0.5 2012-13 20 Revent Govt. High School, Padia Ground Campa NPV 0.5 2012-13 21 Revent Govt. Frinary School, Baskul Ground Campa NPV 0.5 2012-13 22 Revent Sha Section 4 & 5 Ground Campa NPV 0.5 2012-13 23 Nahar Govt. Sr. Sec. School Bhakil Ground Campa NPV 0.5 2012-13 24 Nahar Govt. Gri Sr. Sec. School Juddi Ground Campa NPV 0.5 2012-13 25 Nahar Govt. Gri Sr. Sec. School Juddi Ground Campa NPV 7 2012-13 26 Nahar Govt. Gri Sr. Sec. School, Baswa, Ground Campa NPV 7 2012-13 27 Baswat Govt. Sr. Sec. School, Baswa, Ground Campa NPV 7 2012-13 28 Bawat Govt. Sr. Sec. School, Baswa, Ground Campa NPV 7 2012-13 29 Bawat Govt. Sr. Sec. School, Baswa, Ground Campa NPV 7 2012-13 20 Bawat Govt. Sr. Sec. School, Baswa, Ground Campa NPV 1 2012-13 21 Bawat Govt. Sr. Sec. School Frangues Ground Campa NPV 1 2012-13 23 Bawat Govt. Sr. Sec. School Salpay Fachor Ground Campa NPV 1 2012-13 24 Bawat Govt. High			Govr., Sr. Sec. School, Kharkhara	Ground	Campa NPV	- n>	2017.13	
11 Reward Govt, Primary School, Rayagaon Ground Campa NPV 0,58 2012-13			Govt. Sr. Sec. School, Kaloodia					
12 Rewart Govt. Primary School, Nayagaton Ground Campa NPV 0.8 2012-13			Govt, Primary School, Bhurthal Thather					
13 Rewart Gord, Sr. Sett, School, Marnethl Ground Campa NPV 1 2012-13 15 Rewart Gord, High School, Bandada, Ground Campa NPV 1 2012-13 16 Rewart Gord, High School, Bandada, Ground Campa NPV 0.5 2012-13 16 Rewart Gord, Frimary School, Marnita Ahir Ground Campa NPV 0.5 2012-13 17 Rewart Gord, Frimary School, Marnita Ahir Ground Campa NPV 0.5 2012-13 18 Rewart Gord, Frimary School, Narriga Dhare Ground Campa NPV 0.5 2012-13 19 Rewart Gord, Frimary School, Narriga Dhare Ground Campa NPV 0.5 2012-13 19 Rewart Gord, Frimary School, Narriga Dhare Ground Campa NPV 0.5 2012-13 20 Rewart Gord, Frimary School, Padla Ground Campa NPV 0.5 2012-13 21 Nahar Gord, Fr. Sec. School, Bhalt Ground Campa NPV 0.5 2012-13 22 Rewart Gord, Fr. Sec. School, Bhalt Ground Campa NPV 0.5 2012-13 23 Nahar Gord, Fr. Sec. School, Bhalt Ground Campa NPV 0.5 2012-13 24 Nahar Gord, Fr. Sec. School, Bhalt Ground Campa NPV 0.5 2012-13 25 Nahar Gord, Fr. Sec. School, Bawes Ground Campa NPV 0.5 2012-13 26 Nahar Gord, Fr. Sec. School, Bawes Ground Campa NPV 0.5 2012-13 27 Bawet Gord, Fr. Sec. School, Manglashwar Ground Campa NPV 0.32 2012-13 28 Bawet Gord, Fr. Sec. School, Manglashwar Ground Campa NPV 0.32 2012-13 30 Bawat Gord, Frimary School, Lathuwas Ground Campa NPV 0.58 2012-13 31 Bawet Gord, Frimary School, Lathuwas Ground Campa NPV 0.5 2012-13 32 Bawat Gord, Frimary School, Sangreti Ground Campa NPV 0.5 2012-13 33 Bawat Gord, Frimary School Bayes Ground Campa NPV 0.5 2012-13 34 Bawat Gord, Frimary School Bayes Ground Ground Campa NPV 0.5 2012-13 35 Bawat Gord, Frimary School Bayes Ground Gr			Govt. Primary School, Navaden					
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15 Rawari Gort, Sr. Sec, School, Golbyn Ground Campa, NPV 0.5 2012-13			Gort, High School, Basduda			- ; 		
15 Rewart Govt, Sr. Sec. School, Pali Ground Campa NPV 1 3012-13 17 Rewart Govt, Primary School, Nampla Dhani Ground Campa NPV 0.5 2012-13 19 Rewart Govt, Primary School, Nampla Dhani Ground Campa NPV 0.5 2012-13 19 Rewart Govt, Sr. Sec. School, Mayan Ground Campa NPV 0.5 2012-13 20 Rewart Govt, Sr. Sec. School, Mayan Ground Campa NPV 0.5 2012-13 21 Rewart Govt, Sr. Sec. School, Mayan Ground Campa NPV 0.5 2012-13 22 Rewart Sha Section 4 & 5 Ground Campa NPV 0.5 2012-13 23 Nahar Govt, Sr. Sec. School, Bhakil Ground Campa NPV 4 2012-13 24 Nahar Govt, Gri Sr. Sec. School Juddi Ground Campa NPV 4 2012-13 25 Nahar Govt, Gri Sr. Sec. School, Juddi Ground Campa NPV 2 2012-13 26 Nahar Govt, Gri Sr. Sec. School, Rewar Ground Campa NPV 7 2012-13 27 Bawal Govt, Middle School, Remainer Ground Campa NPV 0.32 2012-13 28 Bawal Govt, Sr. Sec. School, Manglashway Ground Campa NPV 0.08 2012-13 29 Bawal Govt, Sr. Sec. School, Manglashway Ground Campa NPV 0.08 2012-13 30 Saval Govt, High School, Kashawaa Ground Campa NPV 0.08 2012-13 31 Bawal Govt, Sr. Sec. School, Kashawaa Ground Campa NPV 0.1 2012-13 32 Bawal Govt, Sr. Sec. School, Sangwar Ground Campa NPV 0.9 2012-13 33 Bawal Govt, Sr. Sec. School, Sangwar Ground Campa NPV 0.9 2012-13 34 Bawal Govt, Primary School, Bawal Ground Ground Campa NPV 0.1 2012-13 35 Bawal Govt, Sr. Sec. School Sangwar Ground Campa NPV 0.5 2012-13 36 Bawal Govt, Primary School Marampur Ground Campa NPV 0.5 2012-13 36 Bawal Govt, Primary School Sangwar Ground Campa NPV 0.5 2012-13 36 Bawal Govt, Primary School Sangwar Ground Campa NPV 0.5 2012-13 37 Bawal Govt, Primary School Sangwar Ground Campa NPV 0.5 2012-13 38 Bawa		_	Govt. Middle School, Gothra					
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19 Rewart Govt, Sr. Sec. School, Mayan Ground Campa NPV 1 2012-13		Rewari	Govt Primary School, Namela Dhani					
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30 Sewal Govt, High School, Kathawaa Ground Campa NPV 1 2012-13 31 Bewal Govt, Sr. Set, School, Asiyaki Panchor Ground Campa NPV 1.64 2012-13 32 Bawal Govt, Primary School, Ladhawas Ground Campa NPV 1.64 2012-13 33 Bawal Govt, Sr. Set, School, Sangwari Ground Campa NPV 1.64 2012-13 34 Bawal Govt, Middle School, Bhudle Ground Campa NPV 1.8 2012-13 35 Bawal Govt, Middle School Suhferf Ground Campa NPV 1.8 2012-13 36 Bawal Govt, Sr. Set, School Pranquire Ground Campa NPV 1.8 2012-13 37 Bawal Govt, Sr. Set, School Bhagwanpur Ground Campa NPV 1.8 2012-13 38 Bawal Govt, Primary School Bhagwanpur Ground Campa NPV 1.8 2012-13 39 Bawal Govt, High School Bawal Ground Campa NPV 1.8 2012-13 40 Bawal Govt, High School Rajgath Ground Campa NPV 1.8 2012-13 41 Bawal Govt, High School Sanjharpur Ground Campa NPV 1.26 2012-13 42 Bawal Govt, I'll Tankri Ground Campa NPV 1.26 2012-13 43 Bawal Govt, Primary School Jalainghpurthiera Ground Campa NPV 1.26 2012-13 44 Bawal Govt, Primary School Jalainghpurthiera Ground Campa NPV 1.26 2012-13 45 Bawal Govt, Primary School Jalainghpurthiera Ground Campa NPV 1.24 2012-13 46 Bawal Govt, Primary School Jalainghpurthiera Ground Campa NPV 1.24 2012-13 47 Bawal Govt, Middle School Gujariwas Ground Campa NPV 1.78 2012-13 48 Bawal Govt, Primary School Jalainghpurthiera Ground Campa NPV 1.78 2012-13 48 Bawal Govt, Middle School Gujariwas Ground Campa NPV 1.78 2012-13 49 Bawal Govt, Middle School Jalainghpurthiera Ground Campa NPV 1.78 2012-13		Bawai ·	Govt. Sr. Sec. School, Boini					
31 Bawal Govt, Sr. Sec. School, Asiyaki Panchor Ground Campa NPV 1.2 2012-13 32 Bawal Govt, Primary School, Ladhuwas Ground Campa NPV 1.64 2012-13 33 Bawal Govt, Sr. Sec, School, Sangvatri Ground Campa NPV 1.64 2012-13 34 Bawal Govt, Middle School, Bhudle Ground Campa NPV 1.8 2012-13 35 Bawal Govt, Middle School Suhiari Ground Campa NPV 1.8 2012-13 36 Bawal Govt, Sr. Sec, School Pranquire Ground Campa NPV 1.8 2012-13 37 Bawal Govt, Primary School Bhagwanpur Ground Campa NPV 1.8 2012-13 38 Bawal Govt, Sr. Sec, School Bhagwanpur Ground Campa NPV 1.55 2012-13 39 Bawal Govt, Sr. Sec, School Bawal Ground Campa NPV 1.58 2012-13 40 Bawal Govt, High School Ralgerin Ground Campa NPV 1.22 2012-13 41 Bawal Govt, High School Sanfharpur Ground Campa NPV 1.26 2012-13 42 Bawal Govt, Sr. Sec, School Moharpur Ground Campa NPV 1.26 2012-13 43 Bawal Govt, Primary School Jalsinghpurthera Ground Campa NPV 1.26 2012-13 44 Bawal Govt, Primary School Jalsinghpurthera Ground Campa NPV 1.26 2012-13 45 Bawal Govt, Primary School Jalsinghpurthera Ground Campa NPV 1.24 2012-13 46 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.24 2012-13 47 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.27 2012-13 48 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.27 2012-13 49 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.27 2012-13 40 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.27 2012-13 40 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.27 2012-13 41 Bawal Govt, Primary School Khijuri Ground Campa NPV 1.27 2012-13		Streat	Govt, High School, Katherway					
32 Bawal Govt, Primary School, Ladhuwas Ground Campa NPV 1.54 2012-13 33 Bawal Govt, Sr. Sec, School, Sangwari Ground Campa NPV 0.24 2012-13 34 Bawal Govt, Middle School, Bhudle Ground Campa NPV 0.24 2012-13 35 Bawal Govt, Middle School Suhferf Ground Campa NPV 1.8 2012-13 36 Bawal Govt, Sr. Sec, School Prangura Ground Campa NPV 0.8 2012-13 37 Bawal Govt, Primary School Bhagwangurr Ground Campa NPV 0.5 2012-13 38 Bawal Govt, Sr. Sec, School Bawal Ground Campa NPV 0.5 2012-13 39 Bawal Govt, High School Ralgach Ground Campa NPV 0.58 2012-13 40 Bawal Govt, High School Sanjharpur Ground Campa NPV 0.2 2012-13 41 Bawal Govt, Migh School Sanjharpur Ground Campa NPV 0.2 2012-13 42 Bawal Govt, Frimary School Moharpur Ground Campa NPV 0.24 2012-13 43 Bawal Govt, Frimary School Jalsinghpurithera Ground Campa NPV 0.24 2012-13 44 Bawal Govt, Primary School Jalsinghpurithera Ground Campa NPV 0.16 2012-13 45 Bawal Govt, Primary School Dharan Ground Campa NPV 0.16 2012-13 46 Bawal Govt, Middle School Calpariwas Ground Campa NPV 0.3 2012-13 47 Bawal Govt, Middle School Calpariwas Ground Campa NPV 0.3 2012-13 48 Bawal Govt, Middle School Calpariwas Ground Campa NPV 0.3 2012-13 49 Bawal Govt, Middle School Calpariwas Ground Campa NPV 0.78 2012-13 49 Bawal Govt, Middle School Calpariwas Ground Campa NPV 0.78 2012-13 40 Bawal Govt, Middle School Calpariwas Ground Campa NPV 0.78 2012-13	31	Bawai	Govt. Sr. Sec. School, Asivaki Panchor					
33 Bawal Govt, Sr. Sec, School, Sangreri Ground Campa, NPV 0.92 2012-13 34 Bawal Govt, Middle School, Bhudle Ground Campa, NPV 0.24 2012-13 35 Bawal Govt, Middle School Suhieri Ground Campa, NPV 1.8 2012-13 36 Bawal Govt, Sr. Sec, School Prangura Ground Campa, NPV 0.8 2012-13 37 Bawal Govt, Frimary School, Bhagwanpur Ground Campa, NPV 0.5 2012-13 38 Bawal Govt, Frimary School Baywal Ground Campa, NPV 0.58 2012-13 39 Bawal Govt, High School Rajgeth Ground Campa, NPV 0.58 2012-13 40 Bawal Govt, High School Sanjharpur Ground Campa, NPV 0.2 2012-13 41 Bawal Govt, IT Tankri Ground Campa, NPV 0.2 2012-13 42 Bawal Govt, Sr. Sec, School Moharpur Ground Campa, NPV 0.24 2012-13 43 Bawal Govt, Frimary School Jalsinghpurkhera Ground Campa, NPV 0.16 2012-13 44 Bawal Govt, High School Dharen Ground Campa, NPV 0.16 2012-13 45 Bawal Govt, High School Dharen Ground Campa, NPV 0.16 2012-13 46 Bawal Govt, Primary School Khijuri Ground Campa, NPV 0.3 2012-13 47 Bawal Govt, Middle School Calariwas Ground Campa, NPV 0.3 2012-13 48 Bawal Govt, Primary School Khijuri Ground Campa, NPV 0.3 2012-13 49 Bawal Govt, Middle School Calariwas Ground Campa, NPV 0.72 2012-13 40 Bawal Govt, Primary School Calariwas Ground Campa, NPV 0.72 2012-13		Barral	Gove, Primary School, Ladhuwas					
34 Beweil Govt. Middle School, Bhadle Ground Campa NPV 0.24 2012-13 35 Baweil Govt. Middle School Suhieri Ground Campa NPV 1.8 2012-13 36 Baweil Govt. Sr. Sec. School Prangure Ground Campa NPV 0.8 2012-13 37 Baweil Govt. Sr. Sec. School Bhagwanpur Ground Campa NPV 0.5 2012-13 38 Baweil Govt. Sr. Sec. School Baweil Ground Campa NPV 0.58 2012-13 39 Baweil Govt. High School Balgarin Ground Campa NPV 0.32 2012-13 40 Baweil Govt. High School Sarjharpur Ground Campa NPV 0.2 2012-13 41 Baweil Govt. III Tankri Ground Campa NPV 0.2 2012-13 42 Baweil Govt. Sr. Sec. School Moharpur Ground Campa NPV 0.24 2012-13 43 Baweil Govt. Primary School Jalsinghpurithera Ground Campa NPV 0.16 2012-13 44 Baweil Govt. Primary School Jalsinghpurithera Ground Campa NPV 0.16 2012-13 45 Bareal Govt. High School Dharan Ground Campa NPV 0.24 2012-13 46 Baweil Govt. Primary School Khijuri Ground Campa NPV 0.3 2012-13 47 Beweil Govt. Middle School Gajariwas Ground Campa NPV 0.3 2012-13 48 Baweil Govt. Primary School Khijuri Ground Campa NPV 0.3 2012-13 49 Baweil Govt. Middle School Gajariwas Ground Campa NPV 0.3 2012-13 40 Baweil Govt. Primary School Jalaipur Ground Campa NPV 0.3 2012-13	33 7	Bawasi	Goxt. Sr. Sec. School. Sanewari					
25 Bawal Govt, Middle School Sukherf Ground Campa NPV 1.8 2012-13 36 Bawal Govt, Sr. Sec, School Pranques Ground Campa NPV 0.8 2012-13 37 Barkel Govt, Primary School Bhageranpur Ground Campa NPV 0.5 2012-13 38 Barel Govt, Sr. Sec, School Bawal Ground Campa NPV 0.58 2012-13 39 Bawal Govt, High School Ralgerh Ground Campa NPV 0.32 2012-13 40 Bawal Govt, High School Sanfharpur Ground Campa NPV 0.2 2012-13 41 Bawal Govt, I'll Tankri Ground Campa NPV 0.2 2012-13 42 Bawal Govt, Sr. Sec, School Moharpur Ground Campa NPV 0.24 2012-13 43 Bawal Govt, Primary School Jalsinghpurkhera Ground Campa NPV 0.16 2012-13 44 Bawal Govt, High School Dharen Ground Campa NPV 0.16 2012-13 45 Barel Govt, High School Dharen Ground Campa NPV 0.16 2012-13 46 Bawal Govt, Middle School Chipuri Ground Campa NPV 0.3 2012-13 47 Bawal Govt, Middle School Cujariwas Ground Campa NPV 0.3 2012-13 48 Bawal Govt, Middle School Cujariwas Ground Campa NPV 0.3 2012-13		Bewal	Gove, Middle School, Bhudle					
Servel Govt. Sr. Sec. School Pranques Ground Campa NPV 0.8 2012-13	B	Bawal	Govt, Middle School Subherf				2012-13	
37 Berkal Govt, Primary School Bhagwanpur Ground Campa NPV 0.5 2012-13 38 Barrel Govt, Sr. Sec. School Bawal Ground Campa NPV 0.58 2012-13 39 Berkal Govt, High School Religath Ground Campa NPV 0.58 2012-13 40 Barkal Govt, High School Sanjharpur Ground Campa NPV 0.2 2012-13 41 Barkal Govt, I'll Tankri Ground Campa NPV 0.2 2012-13 42 Bawal Govt, Sr. Sec. School Moharpur Ground Campa NPV 0.24 2012-13 43 Barkal Govt, Primary School Jalsinghpurkhera Ground Campa NPV 0.16 2012-13 44 Barkal Govt, High School Dharen Ground Campa NPV 0.16 2012-13 45 Barkal Govt, High School Dharen Ground Campa NPV 0.24 2012-13 46 Barkal Govt, Primary School Khijuri Ground Campa NPV 0.3 2012-13 47 Berkel Govt, Primary School Khijuri Ground Campa NPV 0.3 2012-13 48 Barkal Govt, Primary School Khijuri Ground Campa NPV 0.3 2012-13 49 Berkel Govt, Primary School Khijuri Ground Campa NPV 0.3 2012-13	35	Bawal						
38 Bareal Govt. Sr. Sec. School Baival Ground Campa NPV 0.58 2012-13 39 Bareal Govt. High School Rajgeth Ground Campa NPV 0.32 2012-13 40 Bareal Govt. High School Sanjharpur Ground Campa NPV 0.2 2012-13 41 Bareal Govt. I'll Tankri Ground Campa NPV 1.26 2012-13 42 Bareal Govt. Sr. Sec. School Moharpur Ground Campa NPV 0.24 2012-13 43 Bareal Govt. Primary School Jalainghpurkhera Ground Campa NPV 0.16 2012-13 44 Bareal Govt. High School Dharen Ground Campa NPV 0.16 2012-13 45 Bareal Govt. Primary School Khijuri Ground Campa NPV 0.3 2012-13 46 Bareal Govt. Middle School Chijuri Ground Campa NPV 0.3 2012-13 47 Bereal Govt. Middle School Caljariwas Ground Campa NPV 0.72 2012-13	37	Barkal						
39 Bawal Govt, High School Rajgarh Ground Campa NPV 0.32 2012-13 40 Bawal Govt, High School Sanjharpur Ground Campa NPV 0.2 2012-13 41 Bawal Govt, I'll Tankri Ground Campa NPV 0.2 2012-13 42 Bawal Govt, Sr. See, School Moharpur Ground Campa NPV 0.24 2012-13 43 Bawal Govt, Primary School Jalsinghpurkhera Ground Campa NPV 0.16 2012-13 44 Bawal Govt, High School Dharan Ground Campa NPV 0.16 2012-13 45 Bawal Govt, Primary School Dharan Ground Campa NPV 0.24 2012-13 46 Bawal Govt, Middle School Chipuri Ground Campa NPV 0.3 2012-13 47 Bawal Govt, Middle School Cujariwas Ground Campa NPV 0.72 2012-13	38		Govt. Sr. Sec. School Bawal					
40 Bawai Gowt, High School Sanfharpur Ground Campa NPV 0.2 2012-13 41 Bawai Gowt, Fill Tankri Ground Campa NPV 126 2012-13 42 Bawai Govt, Sr. See, School Moharpur Ground Campa NPV 0.24 2012-13 43 Bawai Govt, Primary School Jalsinghpurkhera Ground Campa NPV 0.16 2012-13 44 Bawai Govt, High School Dharan Ground Campa NPV 0.16 2012-13 45 Bawai Govt, Primary School Chipuri Ground Campa NPV 0.24 2012-13 46 Bawai Govt, Primary School Chipuri Ground Campa NPV 0.3 2012-13 47 Bawai Govt, Middle School Gujariwas Ground Campa NPV 0.72 2012-13 48 Bawai Govt, Primary School Jalaipur Ground Campa NPV 0.72 2012-13	3 9							
41 Bawal Govt. ITI Tankri Ground Campa NPV 1.26 2012-13 42 Bawal Govt. Sr. Sec. School Moharquur Ground Campa NPV 0.24 2012-13 43 Bawal Govt. Primary School Jalainghpurkhera Ground Campa NPV 0.16 2012-13 44 Bawal Govt. High School Dharan Ground Campa NPV 0.16 2012-13 45 Bawal Govt. Primary School Chiquri Ground Campa NPV 0.3 2012-13 46 Bawal Govt. Middle School Cujariwas Ground Campa NPV 0.3 2012-13 47 Bawal Govt. Primary School Jalaipur Ground Campa NPV 0.72 2012-13			Govt, High School Sanifhareau					
42 Bawai Govt Sr. Sec. School Mohampur Ground Campa NPV 0.24 2012-13 43 Bawai Govt Primary School Jaisinghpurkhera Ground Campa NPV 0.16 2012-13 44 Bawai Govt High School Dharan Ground Campa NPV 0.24 2012-13 45 Bawai Govt Primary School Chijuri Ground Campa NPV 0.3 2012-13 46 Bawai Govt Middle School Cujariwas Ground Campa NPV 0.78 2012-13 47 Bawai Govt Primary School Jaiaipur Ground Campa NPV 0.72 2012-13	41		Govt. ITI Tankri					
43 Bawal Govt Primary School Jalsinghpurkhera Ground Campa MPV 0.16 2012-13 44 Bawal Govt High School Dharen Ground Campa MPV 0.24 2012-13 45 Bawal Govt Middle School Khijuri Ground Campa MPV 0.3 2012-13 46 Bawal Govt Middle School Gujariwas Ground Campa MPV 0.78 2012-13 47 Bawal Govt Primary School Jalaipur Ground Campa MPV 0.72 2012-13	_		Govt. Sr. Sec. School Maharmur					
44 Barral Govt High School Dharan Ground Campa NPV 0124 2012-13 45 Barral Govt Primary School Chipuri Ground Campa NPV 0,3 2012-13 46 Barral Govt Middle School Gujariwas Ground Campa NPV 0,78 2012-13 47 Barral Govt Primary School Jalaipur Ground Campa NPV 0,72 2012-13		Bawal	Govt. Primary School Jalsinghoutchers					
45 Barwal Govt Premary School Khijuri Ground Campa NPV 0.3 2012-13 46 Barwal Govt Middle School Gujariwas Ground Campa NPV 0.78 2012-13 47 Bewell Govt Primary School Jatalpur Ground Campa NPV 0.72 2012-13	44	Barral	Govt. High School Dharen					
46 Barrel Govt Middle School Caljariwas Ground Campa NPV 0.3 2012-13 47 Barrel Govt Primary School Jatalpur Ground Campa NPV 0.72 2012-13			Cont. Primary School Khaud					
47 Bewel Govt Primary School Jafaipur Ground Campa NPV 0.72 2012-13	_							
0.72 A012-13		Bowel	Gost. Primary School Jatalour					
		_	Sub Total		Calipa Arv	127.268	4012-13	

50000000

- 3.2 Physical and Financial Target and Achievements
 - Total expenditure in the entire project during 2012-13 was Rs. 46.65 lakh against the target of same amount. In the programme plantation work was carried out in all three ranges. There were 47 places where CAMPA plantation was carried out, Refer table 3.2 for detail information.

SL No	Range	Table 3.2 Physical and Financial Plantation/Project Ske	Distribution	1 1 12012			
		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		Area in RKM		Rea In Lab.	
1	Rewart	Site Section 4 & 5	Target	Achievement	Tanget	Achieveme	
2	Bawal	RF Jhabus Comp. No. 1 & 2	47.268	47.268	1752386	17523	
3	_	RF Jhabua Comp. No. 7	10	10	370734	3707	
4	Revrari	Central School , Korsiwas	20_	20	741468	7414	
5	_	Govi, Primary School, Kalaka, Mandhiya	4.8	4.8	172800	1728	
6	_	Govt. Boys Sr. Sec. School Rewari	0.4	0.4	14400	144	
7	_	Govt. Primary School, Rajpura	0.8	0.8	28800	28	
		Gort. Sr. Sec. School & Primary School,	0.4	0.4	14400	14	
8		Mandrampurbas	0.4	0.4	14400	14	
9		Govt. Sr. Sec. School, Kharkhara	 _			_	
10	_	Govt. Sr. Sec. School, Kakodia	22	0.2	7200		
11		Govt. Primary School, Bhurthal Thather	0.52	0.52	18720	183	
12	_	Govt. Primary School, Nayagaon	_0.68	0.58	24480	24	
3		Govt. Sr. Ser. School, Manethi	3.0	Q.B	25800	28	
4	_	Govt, High School, Baseluda	1	1	36000	360	
5		Govr. Middle School, Gothra	1	1	36000	36	
Б	_	Govt. Sr. Sec. School, Pali	0.5	0.5	16000	180	
7		Cost Primers School, Pall	1	1	36000	360	
É-		Govt, Primary School, Marrita Ahir	0.5	0.5	18000	180	
Ť		Govt. Primary School, Mangla Dhari	0.5	0.5	18000	180	
5 -		Govt. Sr. Sec. School, Mayan	1	i	35000	360	
ž 		Govt. High School, Padia	0.5	05 7	18000	180	
_	Nahar	Sina Section 4 & 5	5	5	180000	1800	
4	Haner	Govt. Sr. Sec. School Bhakli	4	4	144000	1440	
}		Govt. Grt Sr. Sec. School Juddi	2	2	72000	720	
أ أ		Gurawara College	7	7	252000	2570	
_	 -	Govt. Girl High School, Bawwa	2	2	72000	720	
í l	Bauwal	Govt. Middle School, Kamaipur	0.32	032	11520	115	
•		Govt Primary School, Mangleshwar	0.68	0.68	24480	244	
; +	-	Govt Sr. Sec. School, Bolni	1	1	36000	360	
' +		Govt, High School, Kathuwas		1 -	36000	360	
<u>-</u>	-	Govt. Sr. Sec. School, Asiyaki Panchor	1.2	1.2	43200	432	
	-	Govt, Primary School, Ladhuwaa	1.64	1.54	59040	590	
2		Govt. Sr. Sec. School, Sangwarl	0.92	0,92	33120	331.	
		Govt Middle School, Bhudla	0.24	0.24	8640	B5/	
- 1		Govt, Middle School Sukheri	18	1.9	64800	6480	
		Govt, Sr. Sec. School Pranpura	0,8	8.0	28800	288	
<u> </u>		Govt. Primary School Bhagwanour	0.6	8.0	21600	216	
	<u> </u>	Govil, Sr. Sec. School Bawal	0.58	0.58	20680	208	
4		Govt. High School Raigarh	0,32	0.32	11520		
工		Govt. High School Santharpur	0.2	0.2	7200	1152	
		Govt. III Tankri	1,26	1.26	45350	720	
		Gov. Sr. Sec. School Mohangur	0.24	0,24	8640	4536	
\blacksquare		Govil. Primary School Jaisinghpuridiera	0.16	0.16	5760	864	
\perp		Govt, High School Oharan	0.24	0.24	8640	576	
	_	Govt. Primary School Khijurt	0.3	0.3	10800	864	
$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$		Govt. Middle School Gujarhvas	0.78	0.78	28080	1080	
	1	Govt. Primary School Jalaipur	0.72	0.72		2808	
Т		Total	127.268	127.268	25920 45.65	2592	

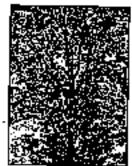
- 3.3 Inventory/ List of Plantation
- A total of 0.32 takh plant species of Alustons, Arjun, B. Papri, Chokraisa, D. Papri, Jamun, Lesus, Noem, P. Papri, Pipal, Shisham, Stras, Vad/Bargad, etc. were planted in the project at 47 different sites comprising 127.268 RKM of land. Range-wise, year wise, scheme wise and area wise list of plantation is given below in table 3.3.

既	1		nventory/List				
No.	Range		2ch garge	Area in FORM	No. of Pleate	Name of Plant Species	Year of Plantation
Ź	Bewal	Stu Section 4 & 5	Campa CA	47.268	11817	Norm 1000, Papel 10017	2012-13
- 2		RF Justin Comp. No. 1 & Z	Campa CA	10	2500	Nearn 120, Papel 2380	2012-13
4	Batwal	RF Jimbus Comp. No. 7	Compa CA	20	5000	Shishum 200, Papri 4700	2012-13
-	Réskont	Central School , Konsteps	Campa NPV	4.8	1200	Papil, Cholysies, Norra	2012-13
3	Rower	Govi. Primary School, Kataka, Markitáya	Салира МРУ	0.4	100	Papel, Chelesias, Nearn	2012-13
*	Flemen	Govt. Boys Sr. Sec. School ,Rampet	Campa NPV	Q.a	200	Papel, Chokraios, Neary	2012-13
-	Revend	Gort. Primary School, Rejoure	Campa MPV	0.4	100	News 100	2012-13
8	Revent	Govt. Sr. Bec. School & Primmy School, Nandrampurbes.	Carapa NPV	0.4	100	9. Pepil 100	2012-13
	+	Govt. Sr., Sec. School, Kharkhare	Campa NPV	0.2	60	8), prepri 50	2012-13
10	Rowari	Govt, Sr., Sec. School, Katrodia	Campa NPV	0.42	130	Papi 130	2012-13
11	Reserve	Govil, Princery School, Shurthari The Ber	Campa NPV	0.68	170	Name 100, 70 Pagei	2012-13
12	Reward	Gent, Primary School, Nayageon	Compa NPV	0.0	200	Pepri 200	2012-13
13	Remark	Govt. Sr. Bac. School, Menethi	Catron NPV	1	250	Shisham 100, Pepri 109, Nacry 60	2012-13
14	Revent	Govt, High School, Beedude	Carepa NPV	. 1	250	Pepal 100, Nesm 100, 8Nichem 50	7012-13
15	Rewarf	Govt. Middle School, Gothra	Campa NPV	Q.5	125	Sheken 125	2012-13
16	Reven	Govi, 6r. Sec. School, Part	Campa NPV	1	250	Papri 250	2012-13
17	Rewart	Govi. Primary School, Marrille Ahir	Camps NPV	06	126	Papri 128	
18	Remort	Govt. Primery School, Nangle Dhani	Campa NPV	0.5	125	N 100 m 125	2012-13
19	Remark	Govt. Sr. Sen. School, Mayon	Compa NPV	<u> </u>	250	Nearn 100, Brisham 100, Sins 50	2012-13
<u>20</u>	Revari	Govt. High School, Parille	Compa NPV	0.5	125	Neem 125	2012-13
22	Riescont	SIN4 Section 4 & 5	Sec-4 & 6	. 5	1250	Heren 700, 50404m 300, Bins. 250	2012-13
23	Mahar	Govt. Br. Sec. School Bhats	Campa NPV	- 4	1000	House 800, C. Papri 500, Shisham 200	2012-13
24	Naher	Gove, Cirl Sr. Sec. School Judgi	Campa NPV	2	800	D, Papel 300, Arjun 80, Neem 150	2012-13
25	Nahar	Gurawara College	Compa NPV	7	1750	Neematto, D. Paprisido, P. Papai 300, Lacua 300, Arjun 100, Akustociedo, Sirus 400	2012-13 2012-13
26	Mehar	Govt, GRI High School, Bases	Campa NPV	2	60	Alestone 60, News 160, D. Pape 110, P. Pape 150, Artig 60	2012-13
27_	BIMI	Govi, Middle School, Kamalpur	Campa NPV	0.32	*	Papri 40, (Bishem 40	2012-13
2B_	Barral	Govi. Primary School, Mangleshwar	Compa NPV	0.68	170	Pepf 170	2012-13
29	Baw-al	Govt, Sr Sec. School, Bolini	Campa NPY	1_	260	Pepri 130, New 100	2012-13
30	Bawad	Govil, High School, Kathuwaa	Camps NPV	_ 1	250	papri 220, jamun 10, Austrata 20	2012-13
31	Beaves	Govt. Sr. Sec. School, Ashyaki Panchor	Capting NPV	1,2	300	Papel 158, Shisham, 146	2012-13
32	Bawai	Govt Primary School, Ladhusea	Campa NPV	1.54	410	Papil 260, Shidram 180	2012-13
33	Barrel	Govt. Sr. Sec. School, Sangwart	Campa NPV	0.92	230	Papri 180, Shisham 500	2012-13
34	Báresi	Govi. Middle School, Bhude.	Campa NPV	0.24	60	Papi 20, Shiatum 30	2012-13
35	Bewsi	Govt, Middle School Builderi	Campa NPV	1.5	460	Peori 150, Statham 50, Jarrum 200, Akustonia 60	2012-13
35	Barreal	Govt, Sr. Sec. School Prespure	Campa NPV	D.	200	Pepri 160, Stenure 50	2012-13
37	Beregi	Govt. Primary School Bhagwanpur	Campa NPV	0.6	160	Pepo 100, Shisham 26, Januar 25	2012-13
322	Bevol	Govt. Sr. Sec. School Blavet	Carepa NPV	0.58	146	Papai 100, Newm 10, James 25, Alexandr 10	2012-13
39 In	Bénegal	Govi. High School Raigam	Campa NPV	0.32		Рара 60. Newm 10, Shisham 10, Januar 10	2012-13
	Bararai	Govl. High School Sanjharpur	Campe NPV	0.2	50 f	Papi 20, New 10, Shighton 10, Jersen 10	2012-13
<u>"</u>	Birwei	Gove, I'll Tembri	Campa NPV	1.26	315	Papel 255, Negra 20, Shlabam 25, Jamus 20	2012-13
12	Bawai	Govt, Sr. Sec. School Mohampur	Campa NPV	0.24	60	Pipel 30, Negat 10, Bridden 10, janua 10	2012-13
13	Bawai Bawai	Govt. Primary School Jateinghpunders	Campa NPV	0.18	40	Papel 10, Moore 10, Shiphirm 19. Jacour 10	2012-13
5	_	Govi. High School Dhama	Carego NPV	0.24	80	Jemun eti	2012-13
16		Govi. Primary School Khijuri	Compa NPV	0.3	75	Papi 76	2012-13
- +	_	Govt. Middle School Gujarhrus Govt. Primary School Jalabur	Campa NPV	0.78	195	Papel 100, 800thers 95	2012-13
			Campa MPV	0.72			

3.4 Analysis of Sample Plantation and Survival Assessment

In the process of monitoring and evaluation of CAMPA programme of Rewari Forest Division in Rewari District of Haryana a sample of 54.24% (69.02\$ RKM) was drawn from 12 sites for field inspection of plantation and to estimate survival percentage of plantation.





Average survival percentage of seedlings estimated was 69%. The highest survival percentage was 74% at Govt. Sr. Sec. School of Bawal range and it was only 69% at Govt. High School, Kathuwas of Bawal range, Average height of plantation was 6 feet. Growth and health of plantation was good. Refer table 3.4 for further information along with photographs.





<u> </u>		Table 3.4: Analysis of Sar	mple Plantation	and Asses	आगक्तार वर्ष	Survival		
SI. No.	Range	Plantation Site	Scheme	Area (RKM)	No. of Plants	Plants Survived	Survival (%)	Year
1_	Rewari Sha Section 4 & 5		Campa CA	47.268	12817	8036	58	- -
2	Remari	Govt. Sr. Sec. School, Manethi	Campa NPV	1	250	165	66	1
3	Réspari	Govi. High School, Basefudg	Campa NPV	1	250	170	68	i
•	Reward	Govt. Sr. Sec. School, Pall	Campa NPV	1 "	250	173	69	ł
5	Rewari	Siha Section 4 & 5	5ec-1 & 5	5	1250	875	70	ļ
6	Nahar	Gurawara College	Campa NPV	7	1750	1190	- 68 - 68	
7	Nebar	Govt. Girl High School. Bewe	Сипра МРУ	2	500	335	67	2012-13
8	Bawai	Govt. High School, Kathuwan	Campa NPV	1 -	250	169	65	
g	Barred	Govt. Middle School Bukheri	Charge NPV	1.6	450	297	55	
10	Bawel	Govt. Prinary School Bitsgwampur	Camps NPV	0,5	160	110	73	
11	Bencel	GOM, Sr. Sec., School Bengi	Campa NPV	0.56	145	107	74	
12	Bawar	Govil, Middle School Gujarhoon	Campa NPV	0.78	196	135	69	
иго. 44-	7 .	* *** *Total この意味等		69.028	17257	1175		1984-5-3

3.5 Registers/Records Maintained in the Project

Mainly cashbook and work registers were maintained by project authority in this project.
 Plantation journal was missing. DFO assured the evaluator about the preparation of plantation journal in all the plantation sites conducted under CAMPA soon.

3.6 Monitoring and Evaluation System in the Project

Monitoring and Evaluation (M & E) of CAMPA and other forestry programmes are conducted by a separate M & E Wing, it is conducted once or twice a year as reported by the project authority. The last evaluation of state CAMPA Haryana at Rewarl forest division was conducted in October 2014. The M & E wing consists of one Conservator of Forest (CF) and two Deputy Conservator of Forest (DCF). Its head office is at Karnal in Haryana. It was also reported that M & E wing conducts evaluation of entire forestry programmes of the state along with CAMPA.

- 3.7 Involvement of Independent Agency for Evaluation of CAMPA
 - An independent agency called Agricultural Finance Corporation Ltd. of Dethi carried out the last monitoring and evaluation of CAMPA work in 2013 for the duration of 2010-11 and 2011-12, Overall findings of the study were satisfactory as reported.
- 3.8 Bank Account Details and Flow of Funds
 - Bank account of CAMPA Programme of Rewari forest division was in the name of Divisional Forest Officer (DFO) with Corporation Bank at Rewari branch. Flow of funds was smooth as per information gathered from various stakeholders of the programme.

Qualitative Analysis and Findings

- 4.1 Preference and Basis of Species Selection
 - Topography, soil type, climate, rainfall, sultability of species in the area, preference shown by local community, etc. were main factors in the selection of plant species. However, the project authority took decision in this regard after taking into account of all these factors.

4.2 Soil and Moisture Conservation

 Wherever the plantation was conducted under CAMPA programme there was some improvement in soil moisture conservation. However, limited provision of funds on this head of the programme did not provide much option to the project authority to carry out additional work related to it.

4.3 Assessment of Survival Percentage

Average survival percentage of seedlings estimated was 69%. The highest survival percentage was 74% at Govt. Sr. Sec. School of Bawal range and it was only 69% at Govt. High School, Kathuwas of Bawal range. Average height of plantation was 6 feet. Growth and health of plantation was good. To estimate survival percentage a sample plot of 0.25 ha (50meterx50meter) was adopted at random location and also row counting of plantation was also adopted to count the seedling at random location. Information gathered through interviews with stakeholders of the project, observations and experiences of members of evaluation team, etc. were also taken into account to validate survival percentage.

4.4 Status of Natural Regeneration in the Plantation Area

 Natural regeneration of plant was not significant as observed during field inspection. In most urban and suburban zone it was negligible while on block forestland zone it was visible to some extent around new plantation areas.

4.5 Quality of Work

4 Overall quality of plantation in the programme was found in good health at majority locations as observed during field inspection. Members of evaluation team covered cent percent project area during field visit.

4.6 Factors Affecting Growth and Survival of Plantation

Grazing by Loose domestic animals, damage caused by wild animals like, rabbits, blue bull
and portupine, destruction by human beings, tough and unfavorable terrain, poor soil
condition, extreme nature of climate (very high temperature in summer low in winter), erradic
nature of monsoon rain, etc. were important factors that impacted growth and survival of
plantation

4.7 Protection and Maintenance of Plantation

Barbed wire and at few places bush fencing were important measures at most plantation sites for protection of plantation. In urban and sub-urban areas brick/ iron/wood gabions were adopted along with barbed wire in this regard. Foresters and forest guards were responsible for making regular rounds of plantation area in the process of protection and maintenance. There should be better care of plantation through elaborate fencing and regular care. The process of awareness raising and motivation of local community should be adopted in the project at regular intervals.

4.8 Motivation and Technical Competence of Personnel Involved in the Project

All the regular forest staffs such as Range Forest Officers (RFO), foresters and forest guards were fully trained to tackle necessary project work of forestry programmes. Temporary or daily wages staffs/workers; cattle watchers, etc. should also be imparted necessary skill to deal with new challenges in the programme. Interactive programmes and meetings were organized on the initiatives of DFO to motivate forest staffs with necessary information on forestry programmes so that they could cope with new challenges in course of performing their duty.

4.9 Role of Local People in Project Work

◆ There was low participation of local community in the implementation, protection and maintenance of the programme, Forest officials organized interactive programmes from time in project area. However, it was not adequate and needed better efforts, Meetings and awareness raising programmes among local community should be a regular phenomenon for better outcome and sustainable development of the programme. Modern tools of mass media should be adopted for awareness and motivation of community.

4.10 Benefits and Impact of the Programme

CAMPA programme accrued both direct and indirect benefits in the project area. Plantation brought additional geographical area under vegetation and forest cover resulting into additional availability of fuel-wood, fodder, other forest produces, etc. It helped in improving quality of ecology and environment as well as micro-climate of the area, which benefitted flora and fauna. Seasonal wage employment during project activity also accrued benefits to local people in earning additional income.

4.11 Formation of Self Help Group (SHG) in the Project

The project authority did not take any effort for SHG formation under CAMPA programme. It was reported that there was not any such provision or allocation of funds for it. However, the project authority agreed with our suggestions that such institutions/SHGs would help in extension of the programme and also for better motivation of local community for their active participation during implementation as well as protection and maintenance of the project assets.

The Constraints and Limitations of Project

There were a number of natural and anthropogenic constraints and limitations faced by project authority during implementation, protection and management of the programme. These factors impacted overall performance of the programme. Some notable constraints and limitations of the project are discussed below.

- 5.1 Unprotect Grazing by Loose Domestic Animals
 - Open grazing by loose domestic animals was a common problem in most part of the project area, it had adverse impact on survival and growth of plantation. Grazing caused far reaching damage to plantation as the animals' feet loosen the soil and had a cascading detrimental effect on all saplings planted in the area, it ted to stunted growth of plants, which survived even after facing these challenges.
- 5.2 Shortage of Frontline Forest Staff During 2012-13 of Project Work
 - Project authority reported that there was shortage of frontline staff like foresters and forest guards in the division during 2012-13 of CAMPA programme implementation. However, fresh recrultment was conducted in the entire state of Haryana to fill the vacant positions and recently this problem was over. But impacted the programme adversely.
- 5.3 Low Wage Rate of Forest Department as Compared to Private Sector
 - Wage rate of forest department (@Rs. 213 per day) was much low as compared to local industrial establishments and urban areas (@Rs. 400-500 per day). It caused hardship and limitations to project authority in finding labour forces during peak plantation season and other project work. It impacted quality and outcome of the programme adversely.
- 5.4 Shortage of Labour Force due to Rapid Urban Sprawl and High wage Rate
 - Due to high rate of urbanization and industrialization in some part of the project area there
 was high demand of labour force and hence the forest department had to face shortage of
 labour as reported.
- 5.5 Inadequate infrastructure in the Division and Forest Ranges
- At division level there was not a big issue of basic infrastructure including availability of necessary vehicles but range level offices were facing shortage for day to day activities as reported by the project authority. It impacted performance and quality of work as well as outcome of project.
- 5.5 Other Biotic and Natural Factors Impacting Survival of Plantation
 - Biotic and natural factors like damage caused by wild animals like, rabbits, blue bulls and porcupines, deliberate destruction by human beings, unfavorable terrain, poor soil condition, extreme nature of climate (very high temperature in summer and low in winter), erratic monsoon rain, rapid urbanization, etc. impacted growth and survival of plantation.

Suggestions and Recommendations

On the basis of interaction and intervious held with forest officials, other stakeholders as well as above description, analysis and assessment of the programme the following suggestions and recommendations are proposed for improvement in the project output and efficacy, it is as follows:

- 5.1 Adopt Long Term Measures to Control Grazing by Domestic Animals
- As discussed above time and again about the menace of grazing in most part of plantation area and hence it was needed to adopt some viable measures to check or at least minimize problem. Wild animals like blue builts and rabbits also caused similar damage to plantation in some part of project areas as they graze green leaves of plants. Stall feeding of domestic animals should be promoted among local community of the area through regular awareness and motivation.
- 6.2 Make Proper Arrangement of Protection and Maintenance of Plantation
- The project authority should make necessary provisions of protection and maintenance of plantation by adopting multi-pronged strategy. Fencing with barbed wire was there in the project but they were found broken at a number of place. Timely repair or replacement of broken items should be done as per requirement and type of plantation, it is suggested that in urban and suburban areas the project authority should adopt gablons of iron, brick, wood, etc. as barbed wire fencing was not successful.
- 6.3 Vacant Posts of Frontline Staff Should be Filled on Time
- 4 All vacant posts of forest guards and foresters should be fulfilled on time by fresh recrultment of staff to ease the pressure. For effective implementation and management of afforestation programme adequate number of staff was prerequisite. However, currently there was no shortage of such staff but it was during 2012-13 of project work.
- 6.4 Provision of fine /punishment be Made Against Wrong Doing with Forest Resources
- There should be provision of fine/punishment or both against all persons involved in unprotected grazing, deliberate damage to plantation, theft to forest wealth, atc. Such punishments or fines could work as deterrent among local community. However, the project authority said that such provisions are in the division and they are applied as per the forest rules and guidelines.
- 6.5 Run Capacity-Building Programme to Impart Knowledge and Hone Skills
- Workshops and Capacity building programmes should be organized by involving field level forest staffs, local community to learn for new ideas and knowledge. In the opinion of project authority, foresters and forest guards were already trained to handle project related work.
- 6.6 Protection and Maintenance Funding should be of Four Years
- There should be provision of funding for 4 (four) consecutive of protection and maintenance of CAMPA plantation. It will improve quality and survival of the plantation.
- 6.7 Make Monitoring and Evaluation Regular, Systematic and Effective
- Monitoring and evaluation is a critical component of most administered programmes, and their significance is more pronounced for mass plantation programmes because the latter are all about sequential growth (organic). As per the project authority M & E wing of forest department take care of this work for the entire forestry programme. It consists of one CF

and two DFOs. It head office is located at Karnal CAMPA programme along with other forestry projects were monitored and evaluated once a year as reported. The project authority should pay more attention to increase its effectiveness.

6.8 Intensive Awareness Campaign to Motivate Local Community

There should be adoption of mass communication tools like electronic media (mainly visual), leaflets, pamphlets, posters, wall writings, nukked natak, slogan shouting, rallies, advertisement in local newspapers, etc. for better and long lasting impact among local community.

5.9 Organize Exposure Visit for Staff Member and Local Community

Project authority should organize exposure visits of forest staffs to advance nursery and
plantation areas within and state outside for better understanding and learning new ideas
and knowledge. These are important tools and methods of development process and also to
improve quality and outcome of the programme.

6.10 Introduce Practice and Concept of Earning Carbon Credits

The concept and practice of carbon credits is part of the global efforts to tackle greenhouse warming and rising temperatures, it should be introduced forthwith in the project area at village level for environment-related mass participatory programmes. Carbon credit is earned by planting new trees and maintaining the old ones. The system will help generate not only a healthler environment but also a regular source of income for local community people. Rewarding villagers for their contribution to the greening process in ways other than carbon credits is related option. If a sense of healthy competition for reward and name can be made to build up among villagers in relation to plantation activities within the programme area, the results are bound to be positive.

6.11 Interview with Project Authority

- a) During pre and post field inspection and evaluation of the programme the members of evaluation team interacted interviewed DFO Rewari (Mr. R. Anand, Mob:+91-946604386, Office: +91-1274254568) along with RFOs, Foresters and Forest Guards. A brief summary of interviews is as follows.
- The members of evaluation team interacted with project authority during pre and post evaluation of CAMPA programme. They were satisfied with overall outcome and progress of CAMPA work conducted during 2012-13. About selection plant species soil type, climate, survival factor in the locality, biotic factor, species not prone to grazing, preference by local people, etc. were main factors as replied by the. Most preferred plant species in the division were Alustona, Arjun, B. Papri, Chokraisa, D. Papri, Jamun, Lesua, Neem, P. Papri, Pipal, Shisham, Siras, Vad/Bargad, etc. Open grazing, rocky terrain, poor soil, erratic and low rain fall were main factors plantation casualty. The project authority further said that all the field staffs were hard working and they owned responsibility and performed their duty well. There was needed to pay adequate attention to improve protection and maintenance of plantation.

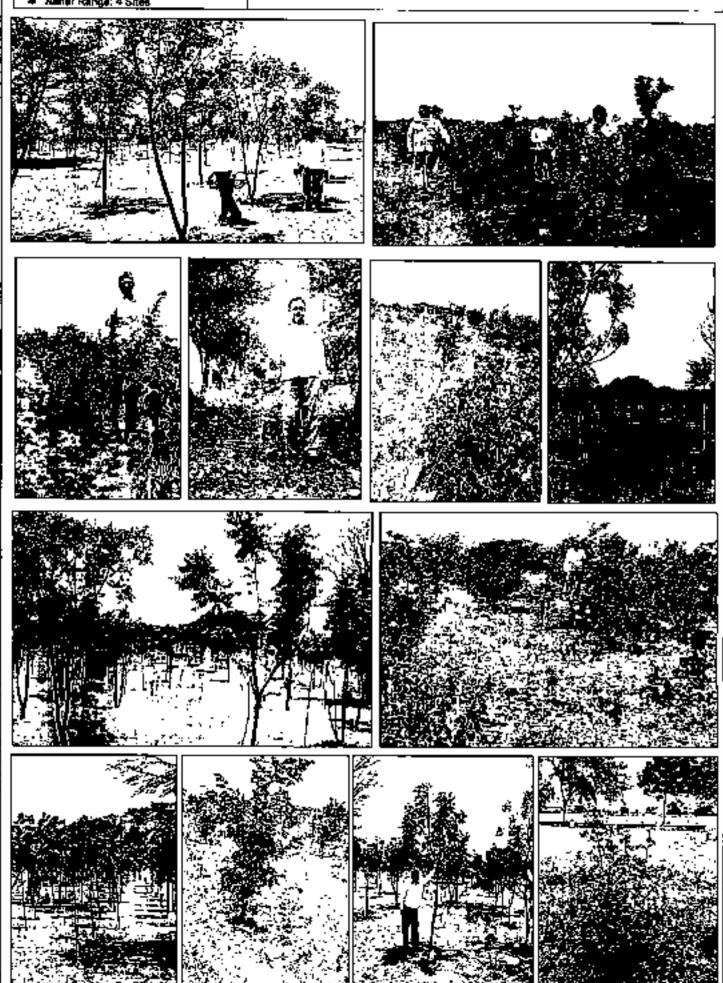
6.12 Evaluator's Assessment

After field inspection and interaction with project authority and other stakeholders of the programme and verification of official records, it was concluded that above statements made by them was true to a great extent. The project authority followed the stated guidelines of programme. Modern tools of mass media should be adopted for awareness campaigns for better impact. Internal monitoring and evaluation in the programme should be updated and carried out effectively.

Photographs of Plantation Area: Rewart Forest Division (2012-13)

- Rewarl) Range, 19 site
- Bewal Range: 23 sites
- Nation Range: 4 Sites

Main Plant Species: Alustona, Arjun, B. Papri, Chokraisa, D. Papri, Jamun, Lesua, Neam, P. Papri, Pipal, Shisham, Stree, VadrBergad, etc



Monitoring & Evaluation of CAMPA Implemented by Remail Forest Division in Remail District of Haryana (2012-13).

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