

**OFFICE OF**  
**CHIEF EXECUTIVE OFFICER, HARYANA CAMPA (STATE AUTHORITY)**  
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No. 440

Dated:- 25/08/2022

To

1. Addl. Chief Secretary to Government, Haryana  
Revenue & Disaster Management Department, Chandigarh.
2. Addl. Chief Secretary to Government, Haryana  
Rural Development Department
3. Addl. Chief Secretary to Government, Haryana  
Development & Panchayats Department, Chandigarh
4. Addl. Chief Secretary to Government, Haryana  
Finance & Planning Department, Chandigarh
5. Addl. Chief Secretary to Government, Haryana  
Agriculture & Farmers Welfare Department, Chandigarh
6. Addl. Chief Secretary to Government, Haryana  
Science & Technology Department, Chandigarh
7. Addl. Chief Secretary to Government, Haryana  
Environment & Climate Change Department, Chandigarh
8. Addl. Chief Secretary to Government, Haryana  
Forest & Wildlife Department
9. Dy. Director General of Forest,  
Northern Regional Office, MoEF & CC, GoI, Chandigarh
10. Principal Chief Conservator of Forests (HoFF),  
Haryana, Panchkula
11. Chief Wildlife Warden, Haryana, Panchkula
12. Nodal Officer, Forest (Conservation) Act-1980

**Subject: Proceedings of 5<sup>th</sup> Meeting of the Steering Committee of "State Compensatory Afforestation Fund Management & Planning Authority (State Authority), Haryana.**

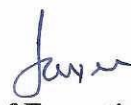
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With reference to subject mentioned above, in continuation of this office letter no. 273 dated 13.06.2022 please find enclosed the proceedings of the 5<sup>th</sup> meeting of Steering Committee of State Compensatory Afforestation Fund Management & Planning Authority (State Authority), Haryana held on 26.05.2022 under the Chairmanship of Sh. Sanjeev Kaushal, IAS, Chief Secretary to Government, Haryana, Chandigarh, along with **Annexure-I**.

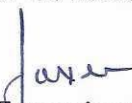
**Encl.-As above**

Endst. No. 441

A copy of Proceeding is forwarded to PS to Chief Secretary to Govt. Haryana for information of Chief Secretary to Govt. Haryana

  
**Chief Executive Officer,  
CAMPA (State Authority),  
Haryana, Panchkula.**

Dated: 25/08/2022

  
**Chief Executive Officer,  
CAMPA (State Authority),  
Haryana, Panchkula.**

**Proceedings, of the 5<sup>th</sup> Meeting of the Steering Committee of State Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Haryana held on 26.05.2022 under the Chairmanship of Sh. Sanjeev Kaushal, Chairperson Steering Committee & Chief Secretary, Haryana**

The list of participants is annexed as **Annexure-I**.

2. At the outset, the Website of Haryana CAMPA [www.campa.haryanaforest.gov.in](http://www.campa.haryanaforest.gov.in) was launched. CEO, CAMPA apprised about the details incorporated in website, with the objective to make available information in public domain.

The following agenda items were discussed and the decisions taken thereon are summarized as below:-

**Agenda No. 5.1: Confirmation of the Minutes of the 4<sup>th</sup> Meeting of the Steering Committee.**

The Steering Committee confirmed the minutes of the 4<sup>th</sup> meeting of the Steering Committee held on 12.04.2022. It was decided to add the letter/written note by ACS S&T as an annexure to the minutes (**Annexure-I**).

**Agenda No. 5.2: Action Taken on the proceedings of the 4<sup>th</sup> meeting of Steering Committee.**

The Member Secretary apprised the Committee about the Action taken on the agenda items taken up during the 4<sup>th</sup> meeting held on 12.04.2022.

**Agenda No. 5.3: Proposed Annual Plan of Operations for the year 2022-23**

CEO, CAMPA informed the Committee that APO 2022-23 has been revised and prepared in Form XII as prescribed in CAF Rules, 2018. Comments and Observations of ACS, S&T on various agenda items were also deliberated during discussion.

**Agenda No. 5.3.1: Proposals under site specific activities of new plantations under Compensatory Afforestation and maintenance of CA plantations.**

The Member Secretary apprised the Committee about the revised APO which has been prepared on the basis of observations made during the 4<sup>th</sup> meeting. ACS, S&T added that per plant expenditure in the proposed new plantations under CA is not uniform across Forest Circles and the anomaly should be looked into with justification. The Member Secretary briefly explained about the procedure for formulation of APO under CA Component and that the main reason behind the varied unit expenditure is due to the fact that CA Schemes prepared for different years (on the basis of different wage rates) are taken up collectively. After detailed discussion, it was decided that PCCF,

*Ja*  
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Haryana, Panchkula



Haryana will look into the issue and ensure that uniform expenditure is proposed under CA based on the site specific requirements. The observations of ACS, S&T, regarding differential costing in Forest Circles were deliberated and Chairperson desired for examination and added that only justified site specific estimates be approved before disbursement. DIG, Integrated Regional Office, MoEF & CC suggested that to look into higher cost norms of CA Schemes vis-a-vis neighboring States, e.g., Punjab, Rajasthan and desired that rational cost norms of site specific CA Schemes be formulated. It was decided that PCCF(HoFF) should look into and finalise rational cost norms and also look into the methodology and rationale for cost norms of Site Specific CA schemes in neighboring States while recommending revised norms.

**The committee approved the proposal carrying out CA over an area of 2070.84 Ha. at a total cost of Rs. 10063.44 lakh and an expenditure of Rs. 2643.33 lakh on maintenance of plantations raised under CA Component and recommended the same to the CAMPA, National Authority.**

#### **Agenda No. 5.3.2: Proposals under Net Present Value (NPV) Component**

##### **5.3.2.1 Activities to be carried out under Rule 5(2) (a)-(Assisted Natural Regeneration)**

The Committee discussed the proposal of carrying out Assisted Natural Regeneration over an area of 300 Ha. at a total cost of Rs. 570.00 lakh. ACS, S&T suggested that the plantation under this Component should be increased keeping in view the scope of regenerating the degraded forest and relatively less expenditure per unit area. The Committee decided that based on the discussions, the extent of area under this component may suitably be increased upto 600 Ha. The Committee also desired that a 5 year perspective plan regarding rational utilisation of NPV amount be prepared. Member Secretary briefed that perspective plan shall be finalised in next 6 months, as also desired by National CAMPA Authority.

**The Committee approved the proposal of plantation under ANR on the increased area of 600 Ha. at a total cost of 1140.00 lakh and recommended the same to the CAMPA National Authority.**

##### **5.3.2.2 Activities to be carried out under Rule 5(2)(b)-(Artificial Regeneration)**

The Committee discussed and approved the proposal of carrying out plantations under Artificial Regeneration over an area of 1500 RKM and 150 Ha. including the maintenance of plantations under AR over an area of 5961.84 Ha. at a total cost of Rs. 4363.92 lakh and recommended the same to CAMPA, National Authority.

### **5.3.2.3 Activities to be carried out under Rule 5(2)(g)-(Soil and Moisture Conservation Works in the Forest)**

CEO, CAMPA apprised the Committee that Ministry of Environment, Forest & Climate Change, Government of India, has forwarded LIDAR survey DPF, for the treatment of Forest Catchment area through site specific Afforestation and Soil & Moisture Conservation works. Director General of Forests & Special Secretary, Government of India, in the meeting of National Authority desired that APOs be prepared as per DPR report. The LIDAR based DPR report in respect of Gurugram, Faridabad and Mewat has been received. CCF, South Circle, Gurugram has been directed to submit cost estimates and proposals accordingly. Based on the LIDAR survey DPR for Aravalli districts of Gurugram, Mewat and Faridabad, forwarded by Merck, the proposals have also been sought from CCF, South Circle, Gurugram and accordingly will be got approved in supplementary agenda during 2022-23 by EC & SC.

**The proposal to carry out site specific Soil and Moisture Conservations works in Shivalik and Aravalli Hill regions with an outlay of Rs. 2000.00 lakh was approved and recommended by the Committee.**

### **5.3.2.4 Activities to be carried out under Rule 5(2)(I)-(improvement of wildlife habitat as provided in the approved wildlife management plan or working plan)**

During the discussion on the proposal on this agenda, PCCF (Wildlife) requested the Committee that projects/activities with an outlay of Rs. 1025.00 lakh have been proposed against which CEO, CAMPA has proposed an amount of Rs. 400.00 lakh and requested that the amount may be increased keeping in view the necessity of the activities proposed. ACS, S&T stressed that, there is need for under passes etc in Aravalli districts to address Human Wild Life Conflict issues, for which CS also desired that detailed and site specific justified proposal may be submitted.

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**The Committee approved and recommended an outlay of Rs. 1025.00 lakh for various activities to be carried out for improvement of wildlife habitat, addressing human wild life conflict and management of protected areas.**

### **5.3.2.5 Activities to be carried out under Rule 5(2)(I)-(supply of wood-saving cooking appliances, biomass based wooden plates and other forest produce saving devices in forest fringe villages as specified by the National Authority from time to time)**

The Committee approved the proposal on promotion of wood-saving cooking appliances; biomass based wooden plates and other forest produce saving devices in forest fringe villages at a total cost of Rs. 20.00 lakh and recommended the same to CAMPA, National Authority.



**5.3.2.6 Activities to be carried out under Rule 5(3)(a) and 5(3)(j)-(establishment, up-gradation and maintenance of modern nurseries and other planting stock production facilities for production of quality planting materials)**

The proposal to carry out various activities on establishment of 10 high-tech nurseries in the State during the year 2022-23 with an outlay of Rs. 3500.00 lakh and proposal on various activities as per Rule 5(3)(j) with an outlay of Rs. 300.00 lakh was considered and approved by the Steering Committee.

**5.3.2.7 Activities to be carried out under Rule 5(3)(e)-(construction of residential and official buildings in forests for front line staffs deployed for protection of forest and wildlife)**

The proposal for expenditure on construction of various buildings for front line staff with an outlay of Rs. 1000.00 lakh was considered and approved by the Steering Committee.

**5.3.2.8 Activities to be carried out under Rule 5(3)(g)-(survey and mapping of forest areas for forest fire control, compensatory afforestation works, soil and moisture conservation, catchment area treatment and wildlife management for preparing annual plans to be executed from the State Fund)**

The proposal of Survey, Mapping and Demarcation of forest areas to be taken up for artificial regeneration and assisted natural regeneration during the next APO year 2023-24 with an outlay of Rs. 700.00 lakh was considered and approved by the Steering Committee.

**5.3.2.9 Activities to be carried out under Rule 5(3)-(independent concurrent monitoring and evaluation and third party monitoring of various works undertaken from State Fund, Assessment & Evaluation Studies etc.)**

The proposal relating to monitoring and evaluation of works to be carried out under all the 4 territorial circles during the last 5 years by an independent agency and the proposal regarding various studies related to wood availability, e-forest fire, management tool, pilot studies on Forest Certification, etc., at a total outlay of Rs. 150.00 lakh was considered and approved by the Steering Committee.

**5.3.2.10 Activities to be carried out under Rule 5(3)(I)-(publicity-cum-awareness programmed and exhibition on the various schemes being implemented by the State Authority from State Fund)**

The proposal relating to Publicity, Education and Training, such as, Awareness Camps in schools, villages, etc., for dissemination of information related to various achievements / activities under CAMPA Project with an outlay of Rs. 150.00 lakh was considered and approved by the Steering Committee.

### **Agenda 5.3.3: Proposal for Expenditure from Interest Component**

#### **5.3.3.1 Activities to be carried out under Rule 6(a)(I)-(to offset the incremental cost of compensatory afforestation and penal compensatory afforestation at the increased wage rates)**

The Steering Committee considered the proposal on incremental cost of Compensatory Afforestation including Additional and Penal CA at the increased wage rates and approved an outlay of Rs. 2000.00 lakh for this purpose.


#### **5.3.3.2 Activities to be carried out under Rule 6(a)(iv)-(Disbursement of salary and allowances of members and staffs, both regular and contractual, of the State Authority)**

The Committee considered and approved the proposal on disbursement of salary and allowances of members and staffs, both regular and contractual, of the State Authority with a total outlay of Rs. 300.00 lakh.

#### **5.3.3.3 Activities to be carried out under Rule 6(b)(ii)-(office equipment including computers and peripherals and its maintenance for the State Authority)**

The Steering Committee considered and approved the proposal of expenditure of Rs. 30.00 lakh on account of office equipments and their maintenance during the year 2022-23.

#### **5.3.3.4 Activities to be carried out under Rule 6(b)(iii)-(hiring of staff cars for the use of the officers and officials of the State Authority)**

 The proposal regarding hiring of staff cars for the use of the officers and officials of the State Authority at an outlay of Rs. 25.00 lakh was considered and approved by the Steering Committee.

### **Agenda 6: Approval of certain deferment activities under APO 2021-22 to next financial year 2022-23 (left over works)**

The Committee considered and approved the proposal of deferment of activities under APO 2021-22 to the next financial year 2022-23 with an outlay of Rs. 477.02 lakh.

The meeting with thanks to all present.

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# Abstract of Annual Plan of Operation 2022-23

Sr. No.	Component	Qty.	Proposed Amount (Rs. in Lakh)
5.3.1	Compensatory Afforestation (New Work).	2070.84 Ha.	10063.44
	Maintenance of CA plantations of previous years.	5092.39 Ha.	2643.33
	<b>Total Compensatory Afforestation Component</b>		<b>12706.77</b>
5.3.2	<b>Proposals for expenditure from NPV component</b>		
5.3.2.1	Assisted Natural Regeneration	600 Ha	1140.00
5.3.2.2	Artificial Regeneration including maintenance of plantations under AR	1500 RKM & 150 Ha. Main. 5961.84 Ha.	4363.92
5.3.2.3	Soil & Moisture Conservation.	L/s	2000.00
5.3.2.4	Improvement of wildlife habitat as provided in the approved wildlife management plan or working plan	L/s	1025.00
5.3.2.5	Supply of wood-saving cooking appliances and other forest produce saving devices	L/s	20.00
5.3.2.6	Establishment, up-gradation and maintenance of modern nurseries. Production of quality planting material	10 Nurseries L/s	3800.00
5.3.2.7	Construction of residential and official buildings in forests for front line staffs	L/s	1000.00
5.3.2.8	Survey and mapping of forest areas	L/s	700.00
5.3.2.9	Independent concurrent monitoring and evaluation and third party monitoring of various works	L/s	150.00
5.3.2.10	Publicity-cum-awareness programmed and exhibition on the various schemes	L/s	150.00
	<b>Total NPV Component</b>		<b>14348.92</b>
	<b>Proposals for expenditure from interest component.</b>		
5.3.3.1	To offset the incremental cost of compensatory afforestation	L/s	2000.00
5.3.3.2	Disbursement of salary and allowances of members and staffs, both regular and contractual, of the State Authority	L/s	300.00
5.3.3.3	Office equipment including computers and peripherals and its maintenance for the State Authority	L/s	30.00
5.3.3.4	Hiring of staff cars for the use of the officers and officials of the State Authority	L/s	25.00
	<b>Total Interest Component</b>		<b>2355.00</b>
	<b>Total</b>		<b>29410.69</b>
6	Approval of certain deferment activities under APO 2021-22 to next financial year 2022-23 (left over works)		477.02
	<b>Grand Total</b>		<b>29887.71</b>

Chief Executive Officer  
State CAMPA (State Authority)  
Haryana, Panchkula

From

Annexure-I

Ashok Khemka, IAS  
Additional Chief Secretary to Government, Haryana,  
Science & Technology Department.

To

The Chief Secretary to Government of Haryana,  
Chandigarh.

No. ACSST/2022/1342  
Chandigarh, dated the 24<sup>th</sup> May, 2022

**Subject: Proceedings of the 4<sup>th</sup> meeting of Steering Committee of  
"State Compensatory Afforestation Fund Management & Planning  
Authority (State Authority), Haryana".**

Sir,

Reference proceedings of the 4<sup>th</sup> meeting of Steering Committee  
of State Compensatory Afforestation Fund Management & Planning  
Authority (State Authority), Haryana circulated vide letter No. 151-162  
dated 19.05.2022 by the CEO, CAMPA (State Authority), Haryana.

Certain observations were made by the undersigned and a copy  
thereof was placed on record during the Meeting, but have not been  
included in the Proceedings circulated. A copy of the  
observations/comments made by the undersigned is enclosed and may be  
included in the Proceedings of the Meeting.

*for*  
Chief Executive Officer  
State CAMPA (State Authority)  
Haryana, Panchkula

Sincerely,

*Ashok Khemka*  
(Ashok Khemka)

CC: Chief Executive Officer, CAMPA (State Authority), Haryana,  
Panchkula.



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4<sup>th</sup> Steering Committee meeting of CAMPA, Haryana held on 12<sup>th</sup> April, 2022.

Observations/Comments of Ashok Khemka, ACS Science & Technology  
- For inclusion in the Minutes of the Meeting.

**CONTEXT**

1. **Forest cover weightage in fiscal devolution from Centre to State.** The XV Finance Commission formula for devolution of funds to the states gives a weightage of 10% for dense forest cover in the state, irrespective of ownership. Thus, it is in the financial and resource generation interest of the State to (a) identify and protect the existing dense forest cover (> 40%), and (b) increase the area under dense forest cover, by facilitating a transition from open forest (10-40%) to dense forest (>40%) and scrub forest (<10%) to open forest.

2. **Despite large scale planting, there is no increase in forest cover in the last two decades.**

Despite large scale forest plantations in Haryana, the forest cover over the last two decades is flat as per the Forest Survey of India reports, with no increase.

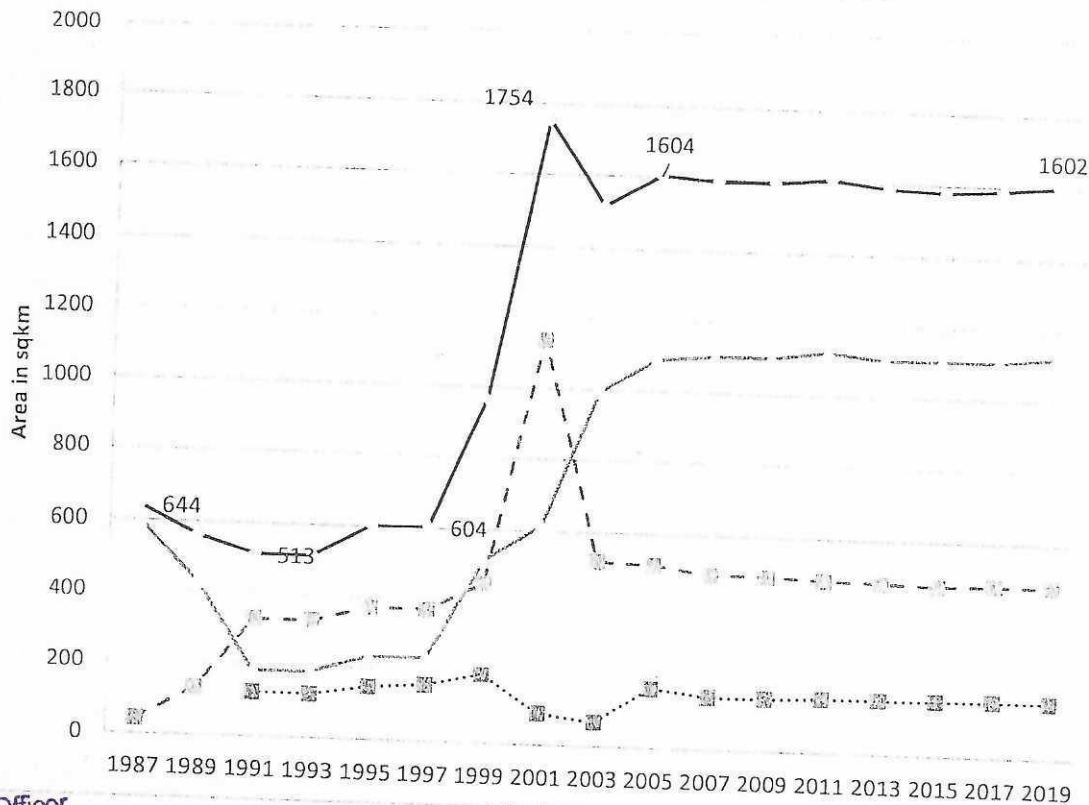
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 Haryana, Panchkula

There was a dramatic increase in the total forest cover between the State of Forest Report (SFR) of 1997 – 604 km<sup>2</sup> and the 2005 SFR – 1604 km<sup>2</sup>. However, thereafter the total forest cover has remained flat between the 2005 SFR – 1604 km<sup>2</sup>, and 1602 km<sup>2</sup> in the 2019 SFR, and 1603 km<sup>2</sup> in the latest 2021 SFR.

There is **no net increase in forest cover over the last two decades** (see graph below) despite all the investments made in forest plantations. The Forest Department may review its modus operandi before infusing large scale funds in business as usual planting.

Troublingly, the dense forest cover (>40%) has decreased from 520 km<sup>2</sup> in 2003 SFR, to 479 km<sup>2</sup> in 2019 SFR – suggesting that open forests are not transitioning to dense forests.

### Haryana - flat forest cover since 2005



Chief Executive Officer  
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Haryana, Panchkula

Black line - Forest Cover  
Green line - Open forest (10-40%)  
Dash line - Dense forest (40%-100%)  
Dotted line - Scrub Forest

3. CAMPA funds not windfall gains - accumulated over 15+ years - should be spent in a judicious and measured manner over the next 15 years.

The CAMPA funds lumpsum payout of Rs 1282.65 received on 30.08.2019 reflects an amount accumulated over 15+ years since the early 2000s. The proposed rate of utilisation will lead to its exhaustion in 3-4 years itself. The CAMPA funds should not be treated as windfall gains, but its use should be staggered over the next 15 years at a rate of approximately Rs



80 crore per year. There are two reasons for staggering the spending of CAMPA fund transfers. One, given the flat forest cover, it seems that forest plantation model is not working over the last two decades. Second, as per section 4 (6), the funds are interest bearing under State public accounts and are non-lapsable.

## OBSERVATIONS

### 4. Form-XII not complied with

- i) **Form-XII** of the Compensatory Afforestation Fund Rules, 2018 provides the format and elements of the Annual Plan of Operation that need to be included. Part-I: (d) - (g) are reproduced below:

(d) Year wise total forest area diverted in the various districts/ forest divisions of the State since 1980, in tabular form.

(e) Year wise total compensatory afforestation carried out in the State since 1980, in tabular form.

(f) Brief description and abstract of the monitoring work done by the Monitoring and Evaluation Wing of the State Forest Department.

(g) Brief description and abstract of the monitoring work done by the independent monitor (Third Party Monitoring) in the State

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Similar directions are provided in Part-II and Part-III.

The directions in Part-I, II and III of the Form-XII have not been complied with while preparing the APO and its Annexures. In the absence of the long term monitoring information, it is hard to assess whether Compensatory Afforestation (CA) and Net Present Value (NPV) supported artificial plantations, ridge plantations and ANR etc. have been successful in the State. The APO be recast as per the directions of Parts-I, II and III of Form-XII provided in the Rules.

ii) **Sub-section (c) of Part-IV of Form-XII** of the Rules provides for sharing details of third party monitoring including photographs, as follows:

c) *Details of the concurrent monitoring and evaluation report including third party monitoring undertaken in past with photographs.*

It is recommended that all the previous monitoring reports of say last 10 years are annexed to the APO and a summary is provided of the same, to meet the requirements of this section.

iii) **Monitoring should be done at multiple time steps** including at the end of the maintenance period - in year 6, in year 10, year 15, year 20, to assess if the forest is actually surviving and to discern the reasons for survival or not.

iv) **Effective GEO Tagging not done.** For some of the locations - only one GPS Lat Long coordinate is given - for others there are two coordinates, and for some there are 4 coordinates - varying across years. It is recommended 4 to 6 coordinates be provided for each location along with the boundary in KML format (google earth file format) for the last 10 year plantations. These need to be put up in a decision support system which has the latest and earlier forest cover FSI images available.

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**Miyawaki forest cost grossly inflated.** The Miyawaki forest cost at Rs. Rs. 91 lakhs for a one hectare area is inflated by almost 6.5 times. The Forest Research Division, Haldwani (Uttarakhand) has shared the financial statistics of Miyawaki forest at Rs. 14.16 lakhs/hectare for Plain Area and Rs. 15.44 lakhs/hectare for Hill Area (copy enclosed). The estimate of Rs. 7 lakhs for a 100 m<sup>2</sup> area works out to a mind boggling cost of Rs. 7 crores/effective ha.



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6. **Railway scheme plantation cost of Rs. 1,068 per plant is excessively high.** The cost at Rs. 1,068 per plant is too high and includes a significant amount of padding. For example, the following cost elements seem out of sync:

- i) Nursery cost of Rs. 100 per plant (row 4)
- ii) Irrigation cost of Rs. 112,000 in year one (row 10) and around Rs. 90,000 in year 2.
- iii) Rs. 168 for digging one pit (row 3), the cost of digging holes with tractor augers is in the range of Rs. 15-20/hole.
- iv) Rs. 7,890 and Rs. 35,640 for weeding and hoeing in year 1 and Rs. 17,530 for chhapa binding around plants (rows 12-13 & 15) per 1,000 plants. This amounts to weeding and chhapa costs of Rs. 60,000/- per year per 1,000 plants.

Department may consider calling a bid for planting and maintenance and offering the work to the lowest bidder in a work performance contract. The work will be done at less than half the cost.

7. **High focus on artificial regeneration (creating plantations), which is a high cost model (>Rs 6 lakhs/ha), rather than Assisted Natural Regeneration (ANR) which is more cost effective and better suited to promote diverse forests.** The APO is heavily loaded in favour of artificial regeneration (creating plantations). This is a high cost approach that often leads to use of species that are not suited to the topography or the forest type. For example, over 118 crores are proposed for 1916 ha of CA plantation - which is an effective cost of over **Rs. 6 lakhs/hectare**. It is therefore recommended that the weightage of plantations (typically at the rate of 1000 trees per ha), should not be more than 1/3<sup>rd</sup> of the acreage for the CA component. The remaining 2/3<sup>rd</sup> of the area should be managed and restored under Assisted Natural Regeneration (ANR) with plantation in the range of 100-400 seedlings/ha.

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8. **Ridge plantations.** There is a large component for ridge plantations at fairly high cost. This cost should also be reviewed. It is recommended that before undertaking any such plantation, a baseline assessment be made by a third party of the trees existing in the area proposed – so that only necessary gap filling is done. Guidelines for ridge plantation are also provided on the Forest Department website – these may be followed.
9. **Stone wall and eco-restoration in the Aravallis.** There was a provision in the APO 2021-22 for Eco restoration in the Aravalli hills of about 200 ha for a sum of Rs 380 lakhs. This is a relatively low cost model at less than Rs. 2 lakhs /ha that focuses on regeneration of existing root stock rather than artificial planting. The experience with this approach needs to be shared, and this activity needs to be continued and expanded, and intensive plantations avoided.

#### OTHER RECOMMENDATIONS

##### 10. Ecosystem Services

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The purpose of the Compensatory Afforestation Fund Act, 2016 is to create new forests and restore existing degraded forests, to protect forests, so as to compensate for diversion of forests. The purpose of the Act is to maintain and enhance the ecosystem services of the forest areas of the state. Section 2 (e) defines “environmental services” to include,

- “— (i) provision of goods such as wood, non-timber forest products, fuel, fodder, water and provision of services such as grazing, tourism, wildlife protection and life support;
- (ii) regulating services such as flood moderation, carbon sequestration and health of soil, air and water regimes;



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(iii) supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production including pollination and seed dispersal,"

**Assess ecosystem services as per forest type.** A baseline assessment be done in each of the forest types in the state to identify the area under each forest type - whether standing or 'degraded, denuded or cleared' that identifies the types of ecosystem services currently provided, and quantifies the same. It should also assess the scope of enhancing the provision of ecosystem services and the steps required for the same.

**11. Start protection in Year 0 or Year (-) 1 and first do a baseline of existing vegetation to assess need for incremental planting.**

Protection is a necessary condition for the regeneration of forests and it may also be sufficient in many contexts where there is adequate root stock /seedbank in the soil to kick start forest regeneration. However, focus on intensive plantations (1000 seedlings/ha) negates the existing root stock and is counterproductive. Therefore, it is recommended for both CA and NPV that:

- i) before planting in Year 1, there is a period of 1-2 year which is incorporated into the year wise plan in which the focus should be on simple protection both by technological approaches - by building stone walls, or fencing (barbed wire, or chainlink etc), and social fencing in collaboration with communities that harnesses elements in the community that are in favour of protection that allows the forest to regenerate.
- ii) A baseline assessment be done, well before planning planting, that assesses the extent of root stock of tree species and shrubs etc on the site, so that the focus is only on filling the gaps by supplementary planting.

**12. Audit existing nursery stock.** There is no indication of the existing stock of seedlings and saplings/tall plants that are currently available in

*for*  
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Maryana, Panchkula

the Departmental nurseries. The current stock for each nursery - number of seedlings/saplings/tall plants of each species should be annexed with the APO to ascertain whether there is sufficient stock of the appropriate species of the forest types for which planting or ANR is proposed.

13. There is a long list of activities that can be undertaken under the CAMPA Rules, for the **NPV component - Rule 5 (2)**. Given that most of the planting under the CA component is already intensive planting, it is suggested that:

- i) the **NPV monies are NOT used for "(b) Artificial regeneration"** which is a high-cost approach and instead NPV be redirected to Assisted Natural Regeneration which costs half or less.
- ii) **Wildlife corridors** particularly in the Shiwaliks and Aravallis be identified and "(j) planting and rejuvenation of forest cover on non-forest land falling in wildlife corridors" be undertaken.
- iii) There have been several instances of wildlife deaths in the wildlife corridors. Wildlife overbridges and under passes may be considered from the NPV funds.
- iv) The pressure on forests be reduced by undertaking "(l) supply of **wood-saving cooking appliances** and other forest produce saving devices in forest fringe villages", e.g. in the Aravallis foothills. These could be solar cookers, solar buckets, regular biogas, compressed biogas, low smoke, fuel efficient chulas etc. These may be explored at a pilot scale in the first year and scaled up thereafter.
- v) Given the high and increasing price of LPG for cooking, **a subsidy on LPG** in Aravalli forest fringe villages would go a long way in reducing forest cutting and should be explored.

  
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14. The Act/Rules provide for selection of **choice of species in consultation with local communities**. However, there is no such indication provided of any such consultation that has been undertaken by local communities either for block forest or for running road side/ canal side plantations. This needs to be done as trees planted in consultation



with communities are likely to be more useful to them and more likely to survive in the long term.

15. **Agro-forestry in Shamlat land** – first identify and support existing forest cover in shamlat lands which has taken 10s or 100s of years of protection effort.

16. **Managing forest cover outside official notified forest lands.** It is suggested that the APO commission a pilot study with the Forest Survey of India to assess the extent of forest cover in the state that is outside the notified forest and options for managing the same.

17. **PLPA Amendment Act 2019:** The CAMPA Act is very clear. Compensatory planting must be done in legally recognized forest areas. NPV planting too must be done in forest areas, with a few exceptions. Given that the Forest Department has moved the Supreme Court with a plea that PLPA notified areas not be treated as forest, it is therefore proposed that no further investments be made in the PLPA areas till the matter is decided.

18. **Identify land bank** with good forest cover/ biodiversity that has importance for ecosystem service provision for making it legal forest.


There are several areas in the state that have forest cover as assessed by the Forest Survey of India (FSI) whether scrub, open forest, or dense forest, but they are not notified as legal forest. One such example is the Mangar Bani sacred grove. The Forest Department may undertake an exercise to identify such areas and assess their ecosystem service provision importance – especially for ground water recharge, wildlife corridor, recreational potential, lake catchments. Such large blocks of forest cover may be identified for NPV forest restoration assisted natural regeneration / Compensatory Afforestation and procure lands in such areas, if needed.

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19. **Sharing of timber and forest produce benefits with communities as per JFM guidelines.** Haryana is the home of community forestry and Joint Forest Management (JFM) having pioneered the Hill Resource Management Societies (HRMS) in the Shiwaliks around Chandigarh in the 1980s. Thereafter, village level JFM Committees were the mainstay of the Aravalli Project in the 1990s implemented in south Haryana Aravalli hills – over 35-40,000 hectares were restored. However, the current APO doesn't even pay lip service to the role of communities and community led forestry. It is recommended that the entire approach to forestry in the state is reviewed keeping in mind the importance of forests for ecosystem services – including wildlife habitat, carbon sequestration, improving air quality, ground water recharge etc, and how to keep communities in the centre of forest restoration, and as required by the CAMPA rules.

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D 12/11/2022

  
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12/4/2022  
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Additional Chief Secretary, Science & Technology  
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Chief Secretary