

## **Mahila Kisan Sashaktikaran Pariyojana (MKSP)**

Rural women form the most productive work force in the economy of majority of the developing nations including India. Agriculture, the single largest production endeavour in India, contributing to 16% of the GDP is increasingly becoming a female activity. Agriculture sector employs 80% of all economically active women; they comprise 33% of the agricultural labour force and 48% of self employed farmers. About 18% of the farm families in India, according to NSSO Reports are reported to be headed by women. Beyond the conventional market – oriented, narrower definition of ‘productive workers’, almost all women in rural India can be considered as ‘farmers’ in some sense, working as agricultural labourers, unpaid workers in the family farm enterprises or combination of the two.

Women in Agriculture are generally not able to access extension services and production assets like seed, water, credit, subsidy etc. As most of them are not recognized as farmers for want of ownership of land, they are not considered as beneficiaries of various government programmes / services. The wage differentials between men and women being adverse to them, the situation is further aggravated. Some of the tasks performed by the women are not valued adequately and considered less important economically.

Further, due to multiple roles that a woman has to perform within the family and the farm, her access to knowledge and information, is constrained and therefore her opportunities get limited.

To improve the present status of women in Agriculture, and to enhance the opportunities for her empowerment, Government of India has announced “Mahila Kisan Sashaktikaran Pariyojana” (MKSP), as a sub component of the National Rural Livelihood Mission (NRLM) and

decided to provide support to the tune of Rs. 100 crore during 2010-11 budget.

## **2. Objectives of MKSP**

The primary objective of the MKSP is to empower women in agriculture by making systematic investments to enhance their participation and productivity, as also create and sustain agriculture based livelihoods of rural women. By establishing efficient local resource based agriculture, wherein women in agriculture gain more control over the production resources and manage the support systems, the project seeks to enable them to gain better access to the inputs and services provided by the government and other agencies. Once the production capacities of women in agriculture improve, food security ensues for their families and communities.

Specific objectives of MKSP are as under:

- To enhance the productive participation of women in agriculture;
- To create sustainable agricultural livelihood opportunities for women in agriculture;
- To improve the skills and capabilities of women in agriculture to support farm and non-farm-based activities;
- To ensure food and nutrition security at the household and the community level;
- To enable women to have better access to inputs and services of the government and other agencies;
- To enhance the managerial capacities of women in agriculture for better management of bio-diversity;
- To improve the capacities of women in agriculture to access the resources of other institutions and schemes within a convergence framework.

### **3. Expected Outcomes**

- (a) Net increase in the incomes of women in agriculture on a sustainable basis;
- (b) Improvement in food and nutritional security of women in agriculture and their families;
- (c) Increase in area under cultivation, cropping intensity and food production by women;
- (d) Increased levels of skills and performance by women in agriculture;
- (e) Increased access of women in agriculture to productive land, inputs, credit, technology and information;
- (f) Drudgery reduction for women in agriculture through use of gender friendly tools / technologies;
- (g) Increased access to market and market information for better marketing of their products;
- (h) Increased soil health and fertility to sustain agriculture based livelihoods;
- (i) Increased visibility of women in agriculture as an interest group – in terms of increased number of women institutions and increase in their entrepreneurship.

An indicative list of expected outcomes and their corresponding indicators is attached as **Annexure- I**.

### **4. Approach:**

MKSP recognizes the centrality of women in agriculture and therefore aims to provide direct and indirect support to enable them to achieve sustainable agriculture production. It will initiate a learning cycle by which women are enabled to learn and adopt appropriate technologies

and farming systems. MKSP will be implemented as a sub-component of NRLM through specially formulated projects. Under NRLM, provision has been made to invite project proposals for Skill Development and Placement. Further under NRLM, It has been proposed to explore various models of partnership with various skill development organizations in general and the private sector in particular for execution of Skill Development and Placement projects. Similar approach is proposed to be followed for MKSP projects under NRLM.

### **5. Strategy:**

The Project Implementing Agency (PIA) under MKSP is expected to follow the below mentioned strategy:

- Use of locally adopted, resource conserving, knowledge-centric, farmer-led and environment-friendly technologies;
- Coordinated action by communities and community based institutions such as the women self help groups, their federations, NGOs and farmer groups, farm schools, farmer field schools and others;
- Inculcating community mobilization skills among women in agriculture thereby demonstrating and articulating the benefits of the sustainable agricultural methods to them;
- The MKSP will enhance the skill base of the women in Agriculture to enable them to pursue their livelihoods on a sustainable basis. Capacity building of women and skill upgradation through handholding, formal and vocational courses will be emphasized;

- The MKSP will strategize in a manner to target the Poorest of the Poor and most vulnerable women such as SC/ST, minorities, landless and the Primitive Tribal Groups;
- While identifying the target group, priority should be given to women-headed households (single women), resource poor households, and women groups engaged in Agriculture and allied activities (promotion, production, processing and marketing);
- Participatory approaches and bottom up planning will constitute the core values of the MKSP.

## **6. Funding**

Ministry of Rural Development (MoRD) would provide funding support of up to 75% (90% for North East and hill states) to the project submitted by the State Governments/PIAs under MKSP. Balance is to be contributed by the respective state governments or any other donor agencies, national and international. Monetization of the PIA's contributions to the project in the form of manpower, infrastructure provision will be permissible and such contribution would be deemed as contribution in kind. Wherever the contribution from the PIA is in kind, the details of such contribution including the monetized value should be indicated in a statement attached to the Audit Report duly certified by the Auditor.

## **7. Processes under the MKSP:**

### **(i) Identification of the project areas**

Availability of active women groups and/or NGOs / CSOs or, the potential for formation of such women groups will form the basis for identification of the project area.

(ii) Implementing Agency:

The State Government, Panchayati Raj Institutions or Semi Government Organizations at the State and National Level may pose projects under MKSP. Women centric NGOs, CSO, CBOs, SHG Federations, Women Organizations active in agriculture activities may also submit proposal under MKSP. A consortium of such organizations may also be allowed to submit project proposals for bringing about synergies of scale and resources.

For submission of Multi State Projects, PIAs may form a consortium. The NGOs and CBOs who are already being funded by a bilateral, multilateral and large Indian donor agency for similar kind of work may also form a consortium having synergy and cohesion. In such cases, the roles and responsibilities of various Agencies may be formalized by way of an MoU signed between them. A large NGO having adequate experience of working as resource NGO and also having long experience in program implementation may act as the lead partner in such cases. The Multi State Projects may be submitted directly to the Department with a copy each to the concerned State Rural Development Departments. Department of Rural Development, Government of India would ask for a “No Objection Certificate” (NOC) from the concerned states before considering the project under MKSP. After obtaining the NOC, the projects will be referred by the Ministry for appraisal by an appropriate central organization. This organization may also act as fund routing / co-coordinating agency.

The details of the PIA which are to be submitted with the project is attached as **Annexure II**.

(iii) Approval of Special Projects under MKSP

The Special Projects pre-appraised and recommended by State Governments will be submitted to the SGSY Division of the Ministry of

Rural Development for consideration. The Division will get the project appraised by a Designated Agency prior to placing them before the Project Screening Committee (PSC) and the Project Approval Committee (PAC).

**a) Project Screening Committee (PSC)**

The Projects submitted would be examined and considered by the Project Screening Committee (PSC) before they are submitted to the Project Approval Committee with its recommendation. The composition of the Project Screening Committee would be as under:

Joint Secretary (SGSY), D/o Rural Development	Chairman
Joint Secretary (Extension) / RKVY, DAC or his/her nominee not below the rank of DS/ Director	Member
Director/Dy. Adviser (RD), Planning Commission	Member
Director/Deputy Secretary (IFD), D/o Rural Development	Member
Representatives from the Appraising Agencies Special Invitee/Expert (Two)	Member
Representative from the MW&CD	Member
Director/Deputy Secretary/Joint Director dealing	Member-Convener

with the Subject

The Committee would on the basis of predefined criteria would identify and refer the screened project to be placed before the Project Approval Committee (PAC) for final approval after which the project will be sanctioned.

**b) Project Approval Committee (PAC)**

The composition of the Project Approval Committee (PAC) would be as under:

Secretary, M/o Rural Development	
Chairman	
Adviser (RD), Planning Commission	Member

AS&FA, M/o Rural Development	Member
DG – CAPART (or his nominee)	Member
DG, NIRD (or his nominee)	Member
Joint Secretary (Extension)/(RKVY), M/o Agriculture	Member
Joint Secretary, Ministry of Women & Child Development	Member
Special Invitee (Expert)	Member
Joint Secretary (SGSY)	Member-Convener

**(iv) Role of the State Rural Development Department:**

State specific Special Project Proposals would have to be routed through the Rural Development & Panchayati Raj Department. The State Department will process the project proposals, organize pre-appraisals and commit State's share wherever applicable, and recommend them to the Ministry of Rural Development. The Department may also monitor the projects and review the progress.

**(v) Project Period:**

Ordinarily, the projects are to be implemented within three years' time.

**(vi) Release of Funds:**

**1st Installment:**

The first instalment (i.e. 25% of the total Project cost) will be released after the approval of the project by PAC and upon executing the MoU. The funds may be channelled through the Designated Agency. The Designated Agency through whom the funds shall be routed will be a Government or Semi Government Body.

**2nd Installment**

The 2nd installment of 50 % of central share will be released upon the following:

- (a) Submission of a Utilization certificate along with an expenditure statement for at least 60% of the released 1st installment funds and achievement of corresponding physical target.
- (b) Submission of year-wise audit reports of the funds utilized;
- (d) Quarterly reporting of progress in the prescribed formats
- (e) A certificate from the Designated Agency that the project is being implemented as per the approved project proposal.

### **3rd Installment**

The 3rd and final installment of 25% of central share will be released upon the following:

- (a) Utilization of 80%\* of the total available funds and achievement of corresponding physical targets.
- (b) Submission of year-wise audit reports of the funds utilized;
- (c) Regular reporting of progress in the prescribed format;
- (d) A certificate from the Implementing/Coordinating Agency that the project is being implemented as per the approved project proposal.
- (f) Before the release of the 3rd and final instalment, it will be open to MoRD to have verification of the progress of the project by a third party / independent agency.

All financial documents (UC, Audit report etc.) and the project report submitted by the Project Implementation Agencies should be scrutinized and authenticated by the Co-ordinating Agency before they are forwarded to the Ministry of Rural Development.

### **(vii) Utilization of Interest earned on central release (s):**

The interest amount accrued on Government releases, if any, shall be adjusted against the Government share of the Project cost at the time of release of the third and final instalment.

### **(viii) Releasing of Matching Share:**

The State Government is required to release its corresponding matching share within a month of receipt of the respective installment of the central share.

**(ix) Submission of progress reports:**

- a. The implementing agency/coordinating agency shall submit the progress report of the project by 15<sup>th</sup> of the month succeeding every quarter in the format prescribed by the Ministry. Failure to furnish the progress report would make implementing/coordinating agency liable to refund the Central funds released for the Project along with interest.
- b. It shall be open to the Ministry of Rural Development to prescribe such conditions, as it deems fit, from time to time to ensure proper execution of the project.

**(x) Monitoring and review of the Project:**

Monitoring and review of the Projects sanctioned and implemented will be done at two levels i.e. at the Central level by a designated agency and at the State level by the RD Department. 1.5% of the central share in a project will be given to agencies identified at central level for appraisal, fund routing, monitoring and co-ordination.

**(a) State Level:**

For monitoring and periodic review of the sanctioned project, a Committee at the State level, headed by the Secretary (RD) of the State is to be constituted who will be responsible for reviewing and monitoring the Project/s. The State Committee shall have participation from Agriculture and Women and Child Development Departments. The Committee shall undertake quarterly reviews with the PIAs and members of the consortia as the case may be. The State governments

may also constitute a State Level Technical Project Support Group to assist the PIAs in the implementation of the Projects.\_

**(b) Central Level:**

At the Central Level, the PSC will periodically review and monitor the special projects sanctioned under the scheme. PSC will brief the PAC about the progress of the ongoing projects periodically. In addition, an advisory body including the representatives from private organizations, industries, marketing firms etc. would be constituted at the Central Level to give necessary advice to the Ministry of Rural Development on the implementation of MKSP.

**(xi) Audit:**

(i) The Ministry of Rural Development retains the right to carry out internal audit of funds and financial implications of the project, if deemed necessary.

(ii) Financial audit is to be carried out by the Chartered Accountant of the Project Implementing Agency or any other authority appointed by the State Government. The audit report together with action taken on the auditor's observations and physical progress under the project shall be furnished at the time of release of 2nd / 3rd instalment of the Central funds.

**8. Formulation of Projects under MKSP**

**I. About the Project**

- (i) As the objective of the MKSP is to empower women to sustain and improve agriculture based livelihoods by establishing efficient local resource based agriculture, with

women in agriculture gaining more control over the production resources and managing support systems, the project objectives should be explicitly stated and formulated accordingly.

- (ii) The Projects should be conceived in a manner so as to provide end to end solutions. Provision of a complete package of 'end-to-end' services through linking up women farmers with the community based organizations providing access to a complete package of options from credit, insurance and inputs, to procurement, value addition and marketing of produce should be made in the project in order to make it a holistic project. To the extent possible, there should not be any gaps in the project and the loop should be closed.
- (iii) The scaling up strategy with the help of Community Based Organizations (CBOs) should be clearly mentioned in the project. How Community Resource Persons (CRPs) and Best Practicing Farmers (BPFs) can drive the Project needs to be outlined clearly under the project.
- (iv) Collaboration strategy in partnering with CBOs, NGOs, Research Institutes, and Private Sector etc. should be mentioned in the project. A consortium of agencies coming together to formulate and implement the project would be permissible.
- (v) If any subsidy is proposed, it should always be used as an incentive and not something which is derived in the natural course. The incentive either to individuals or organizations should be based on clearly measureable indicators, such as volume of transactions of the individuals with the livelihoods

collectives or SHG Federation, repayment of loans, marketing premium obtained, no. of members whose skills have been enhanced, etc. Another use of financial incentive is leveraging. It should be used as catalytic capital to leverage credit from the financial institutions.

- (vi) Proposed State, district, blocks where the MKSP project is to be implemented should be specified along with details of coverage.
- (vii) Project period needs to be specified.
- (viii) Project should lead to substantial tangible and intangible socio-economic benefits.
- (ix) Project should have a well defined internal monitoring systems to track the progress ie., physical and financial achievements. Appropriate Management Information Systems should be set up by the PIAs.
- (x) There should be a sound information dissemination strategy using the Information Technology, Kisan Melas, Kisan Days, Festivals, Folk Media, Audio-visual Aids, SMS updating systems, IEC material, video conferencing, and documenting the best practices.

## **II. The components under the project:**

- a) The organization and mobilization of women in agriculture into groups (SHGs/ Federations / Women Farmer organizations) should be a critical element in the project. A logical corollary to this activity is the technical and managerial capacity building of women in Agriculture in order to enable them to manage and sustain their activities. In this context, 'learning from the people' is equally or perhaps more

important than institutional training. The SHGs and the women groups which have achieved something extraordinary should be upgraded into People's Training Institutions (PTIs). The members could be provided TOT and apprised with training methodologies. They could also be encouraged to develop their training curricula and their own pedagogy. They could be asked to select their trainees from the nearby villages which could be put under their charge. Besides, e-learning modules and distance modules would also be helpful in the training endeavours.

- b) The project may follow the Group Approach for the delivery of services.
- c) Enhanced access to assets (leasing of water bodies and land etc.), for the benefit of women in Agriculture as also creation of productive assets should be given due importance.
- d) Under the knowledge dissemination strategy, training / demonstrations, farmer-scientist interactions, exposure visits etc. of women in Agriculture may be included in order to impart them with necessary farming skills and techniques. Establishing institutional mechanisms for knowledge building, management and dissemination by women could be another element of this component. Knowledge, particularly relating to markets, post harvest practices and village level value addition should be included for the dissemination strategy.
- e) Agriculture related productivity enhancement techniques/ measures should be given due importance.
- f) The agriculture strategy adopted under the Project should revolve around local natural resource based sustainable

agriculture. An indicative list of pre-harvest, post-harvest and sustainable agriculture practices is attached as Annexure III.

- g) The activities of the project may blend Agriculture and Allied sector activities as also the post harvest processing activities that add value to the agricultural produce. This would include horticulture, agro-processing, food-processing, storage, value addition, preservation, seed growing etc. Likewise, management of cattle essentially considered as women's domain should be given due weightage under the scheme.
- h) Improving market access and ensuring remunerative prices to women in agriculture should be a key element under the project. The marketing methods should be a combination of traditional marketing (marketing in established haats and bazaars, door-to-door marketing) and modern marketing including e-marketing. Under MKSP, building up marketing expertise of the women in agriculture should be a key element.
- i) Drudgery reduction through effective use of gender-friendly tools and transfer of technologies to women in agriculture should also be made a key feature of the scheme.
- j) In order to optimize the benefits from the project under MKSP, a well defined convergence strategy should be mentioned at central, state, district and block levels in order to leverage schemes of various Ministries /Departments such as MGNREGA, ATMA RKVY, Watershed Development Programme, National Food Security Mission of India (NFSM) etc. and similar schemes aiming at empowerment of women and enhancement of agriculture productivity under the Ministries of Agriculture and Women and Child Development.

- k) The projects under MKSP should also incorporate planting of trees and fodder availability in order to derive maximum benefits out of the agricultural activities under the project.
- l) Livestock activities can be included wherever there is genuine integration with agriculture activities.
- m) Food and Nutritional security of the women in agriculture at household and community level should be made an integral part of the project. Institutional mechanisms for ensuring household and community level food security systems may be clearly mentioned. Village level procurement and distribution of commodities could be one of the components of the project.
- n) Innovative interventions may be considered for better management of risk associated with climate change.

### **III. Eligible Items of Expenditure:**

Component-wise expenditure likely to be incurred for the project, like beneficiary mobilization, cost of training and capacity building, input costs, monitoring fees, tracking, administrative expenditure etc. must be mentioned in the project document. Matching share of 25% by the State Government / Project Implementing Agency may be mentioned.

The project should incorporate expenditure on various components indicated under MKSP to arrive at the project cost. The administrative expenses for managing the project shall not exceed 5% with the condition that savings if any in the administrative component may be used for furthering the activities of the Project but not vice versa. Purchase of vehicles is not admissible in the

projects. No cost escalation shall be borne by the Government of India.

At the end of the project period, the ownership and management rights of the infrastructure and assets created if any, under the project, shall remain with the participating women groups/organizations.

Reallocation of funds not exceeding to 5% of the total project cost among different project activities will be permissible to accommodate any innovation within the project. However, reallocation on account of administrative expenditure shall not be permitted.

IV. Any Additional Information that may be relevant to the Project Proposal may be mentioned in the Project Document.

## **9. Appraisal of the Projects**

The PIAs may submit their projects to the State Governments under intimation to the Government of India. Once the projects are appraised by the State Government's nodal Department, after duly examining their financial status, experience in implementing such projects, infrastructure facilities and other indicators, the project will be submitted to the MoRD for consideration by the PSC. An indicative set of appraisal criteria is attached as **Annexure IV**.

Necessary conditions for project approval

- PIA's past record and experience of at least 3 years, especially in agriculture extension and women empowerment.
- Recommendation by the identified Appraising Agency.
- Commitment of 25% of the Project Cost by State Govt. / PIA.
- The central thematic livelihood component of the Project shall be anchored in dominant concerns such as Climate Change, Millets production and processing, Drudgery reduction, Bio-

diversity, Food and Nutritional Security, Conservation and improved access to natural resources, Pasture and Wasteland Development, etc.

- Exit and Scaling up strategy
- Predominant focus on vulnerable communities (ST/SC, Minorities and women headed households)
- Innovative projects in vulnerable areas (ecologically fragile, rain-fed, drought and flood prone areas, etc.)
- Comprehensive project design – concept to completion

## **10. Project Completion**

Process Documentation from the beginning will be useful for developing audio visual for further scaling up and mid way correction. Documentation is an essential requirement of the project along with video recording for important project milestones, giving the status of the project participants before and after. It should cover the details of deliverables as indicated in the project and achievements made against these deliverables. The completion report of the project should be made available by the PIA to MoRD/Designated Agency within three months from the date of project completion along with final utilization certificate and audit reports and funds that remained unspent, if any.

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## Annexure-I

### Matrix of Outcome and Measurement

Outcome	Indicators
Net increase in the income of women in agriculture on sustainable basis	Income, livelihoods diversification (having a multiple livelihood option)
Increase in total cultivated area	Cropping intensity, gross cropped area, reduction in fallow area
Increase in the food production	Total production, productivity, farm related activities (integrated farming systems)
Increase in benefit and reduction in cost	Monetary and non-Monetary indicators
Soil health and Fertility (environment)	Soil organic matter, microbial biomass carbon, Nitrogen mineralization potential
Increased visibility of women in agriculture as an interest group	Who takes decision in the household, membership in group, number of women institutions and enterprises engaged in Agriculture.
Increase in the skill performance levels of women in agriculture	Training, study tour, exposure visits, demonstration, participating in action research, technology they are using, (deskilling)
Drudgery reduction for women in agriculture under the Project area through use of gender friendly tools/technologies	Tools and techniques developed to reduced drudgery
Increased access to input and services	Inputs, markets, credit, information, technology

**Profile of the Project Implementing Agency (PIA)**

- (a) Basic information: Name of the Organization, its full postal address, email ids and telephone number
- (b) Profile of Project Proposer- names of the head of the Organization and project-co-ordinator, their background, academic qualifications, experience, previous responsibilities held, duration in present organization and nature of duties handled
- (c) If the organization is a part of or sister concern of a larger entity, details may be given
- (d) Details of specialization of the organization, its primary activities, projects handled and duration of exposure to the subject. The total project size handled so far may be given.
- (e) Similar work handled in the past along with its size should be clearly mentioned.

### **Indicative list of appropriate pre-harvest, post-harvest and sustainable agriculture methods**

#### **Pre Harvest Practices:**

- ❖ Harvesting at the right time, taking into account the factors determining produce maturity and storability. This can be assessed by a set of crop specific indicators. This will help reduce storage losses as well maintain the quality of produce.
- ❖ Prior to harvest, avoid use of pesticides and toxic chemicals which will have residual effect on crop produce.
- ❖ Avoid chemical-induced ripening of fruits

#### **Post Harvest Practices:**

- ❖ Use appropriate women friendly mechanical harvester/thresher suited to specific location/crop to facilitate timely harvesting and threshing. Use of mechanical harvesters/threshers helps reduce drudgery in harvesting and threshing as well as reduce crop loss.
- ❖ Cleaning the produce to remove physical impurities
- ❖ Use of contaminant-free threshing floors/driers/wire mesh to ensure clean and quality crop produce
- ❖ Dry the grains to optimum moisture level before storage or marketing to prevent fungal/bacterial infection during handling and storage
- ❖ Condition the produce to ambient temperature before packaging
- ❖ Grade the produce according to the crop-specific standards
- ❖ Appropriate packing of produce to avoid wastage during transport. Packing material may be of compressed paper/fibre/wooden/plastics depending on the produce to be packed in standard size to enable handling and stacking.

#### **Storage and Processing Practices:**

- ❖ Create community storage structures for seeds and grains. These storage structures may be metallic silos, mud or straw based storage bins.
- ❖ Adopt integrated pest management strategies to control storage pests and precautionary measures against pathogens and rodents.
- ❖ Use of zero energy cold chambers for short term storage of fruits and vegetables
- ❖ Value addition to the primary products to enhance market value and income of women farmers
- ❖ Promotion of drudgery-reducing processing facilities at community level- for eg. use of mini-dhal mill to process pulses

### **Pest Management:**

- **Deep summer ploughing:** Summer ploughing exposes the pupae surviving inside the soil. Depth of ploughing should be more than 6 inches. Exposed pupae will die due to excess heat (or) eaten away by birds
- **Seed treatment with non-chemical components**
- **Clipping of the tips in case of Paddy:** Cut seedling tips while transplanting into the main field. This will prevent Stem borer attack as Stem borer lays eggs on the tips of the leaves.
- **Alleys in Paddy:** Leaving 1 feet path at every 3 mts interval in East –West direction will avoid attack of Hoppers.
- **White and Yellow sticky traps:** Arrange 15-20 Yellow and White sticky traps per acre. Green leaf hoppers and thrips stick to these traps. Clean these traps once in two days and add sticky material to traps for effective trapping. Height of these traps should be the same with the plant height.
- **Bird perches:** Arrange 10-15 bird perches per acre immediately after transplanting and remove these at grain filling stage (60 days after transplanting). Bird perches will attract birds and birds will eat pests. Broad costing of yellow rice will attract more birds. Height of bird perches should be more than the height of plants.
- **Pheromone traps:** Keeping 5-10 Pheromone traps in zigzag way to mass trapping of pests. Lure has to be changed once in a month or after the expiry date
- **Growing of trap crops:** Grow yellow flower Marigold (tall growing plants are preferred) and Castor around field, ensure flowering before main crop completes vegetative stage
- **Border crop:** Sow 3 rows of tall growing Jowar or Bajra or Maize (without any gap in the row). This will provide enabling environment for friendly insects and it also prevents
- **Application of Botanical extracts:** If all the above mentioned principles are followed religiously, there will not be any need to apply botanical extracts. However list of pests and botanical extracts

### **Disease Management:**

- **Selection of Seed:** Seed should be free from diseases and should select resistant varieties
- **Incorporating weeds:** Weeds and other voluntary plants should incorporate into soil
- **Reduce/no chemical fertilizer usage:** Reduce (or) avoid chemical fertilizers to prevent diseases

- **Crop rotation:** Rotate crops particularly with pulses to prevent disease spread
- Avoid application of Nitrogenous fertilizer during cloudy days
- **Alleys:** Alleys provide enough sunlight and wind flow and prevent disease spread

#### **Rodent control:**

- A. Use Rodent traps – 5-10 per acre
- B. Keep Papaya peaces all-around the field – four Papayas are sufficient for one acre
- C. Rodent repellent crops such as Calotropis, Turmeric, Castor plants which are rodent repellants
- D. Keep mix of Cement and Wheat or any other flour at rat holes

#### **Nutrient Management:**

- **Penning with Sheep (or) Cattle:** Penning with Sheep (or) cattle will improve soil fertility. During Summer, penning of sheep and cattle in the whole night is a general practice
- **Tank silt application:** Application of tank silt will improve soil fertility and water holding capacity
- **Application Farm Yard Manure (FYM):** Application of 6 tones / Acre of completely decomposed FYM per acre will improve soil fertility.
- **Green manure crops:** Green manure crops will improve soil structure and organic matter content. After reaching flowering stage incorporate green manure crops into soil.
- **Application of Azolla:** Add Azolla to paddy field it fixes atmospheric nitrogen, an average half of the nitrogen fertilizer application can be reduced
- **Micronutrient deficiency:** For nutrient deficiency (Iron, Zinc and Potash) in nursery and in main field spray cow urine and cow dung and Acetofida solution.
- **Green leaf manure:** Green leaf manuring with Pongamia, neem etc will improve soil fertility
- **Efficient composting methods like Nadep composting**
- **Intercropping of monocots and dicots**
- **Crop rotation with pulse crops**
- **Mulching with green leaf and crop residues**

**Soil and moisture conservation in Rainfed areas:**

- Conservation furrows for every four meters
- Trenches all-around farm
- Farm ponds

**Cropping pattern in rain fed areas:**

- Trees all around trench on farm boundary.
- Cropping pattern with red gram in between the conservation furrows in 2:1 and 5:1 with millets and groundnut respectively

**Indicative Appraisal Criteria:**

- (1) Increase net incomes of women farmers through adoption of low-cost production protocols.
- (2) Production protocols that address nutritional security of women/child.
- (3) Production protocols and strategies that enhance biodiversity and enhances natural resource base.
- (4) Address soil-health and environmental issues.
- (5) Promote only those agro-practices that eliminate threats to health of women/child.
- (6) Production technology should reduce drudgery for women farmers.
- (7) Generate a large pool of 'bare-foot experts' for knowledge dissemination of farm skills.
- (8) Cost effectiveness of the project. High benefit -cost ratio is a desirable feature of the project under MKSP.
- (9) Legal status of the PIA.
- (10) Submission of at least three year's Audit Reports
- (11) Experience of having worked with the governments (State or Central)
- (12) Past experience in Community mobilization, DPR preparation and training.
- (13) Past experience in Agriculture and Women Empowerment.