




TRAINING MANUAL FOR COMMUNITY MANAGED SEED SYSTEM



Odisha Mission on Millet
WASSAN Bhubaneswar

Training module on “Community Managed Seed System (CMSS)”

No of Days: 2 (2 days Class room Training)

Type of Participants: Community Resource Persons and Seed Producer Groups and Members of Seed Bank

Introduction

Special Programme for the Promotion of Millets in the Tribal Areas of Odisha was launched by the government of Odisha to revive the Millets through enhancing Production, Promotion of Consumption and supporting for Marketing of the produces. One of the major reasons for the decline of Millet cultivation is unavailability of good quality seed at the local level. In general, issues related to timely supply and availability of quality seed of other crops still prevails in present days. Moreover, many of the indigenous seeds have disappeared or disappearing gradually. To address this problem, the concept of Community Managed Seed System came into being in many places of India. However seed saving is a practice of a farmers followed since the inception of agriculture.

This Training Programme is trying to introduce to the participants the concept of Seed Bank, its management practices and conservation, multiplication of indigenous seed.

Objectives:

By the end of the 2 days training Programme the participants would be able to:

- The concept of Community managed Seed System
- The importance and need for Community managed seed system
- The concept of seed producer group and the PoP involved in the seed production
- The management practices for Seed Center

About the Participants: The participants are the Community Resource Person, members of Seed Centers, and Seed producer groups.

Community resource persons:

1. The CRPs are the field level worker, based out in each Programme Gram panchayat.
2. Their role is to mobilize the community members, farmers and disseminate farming knowledge and techniques to the farmers.

Members of Seed Producer Group and Seed Bank:

1. The members of the Seed Producer group are the farmers who are trained to produce indigenous seed and sell to the Seed Bank of their area.
2. The members of the Seed bank are from local SHG who are selected and trained to manage the day to day activities of the Community Managed Seed System.

The participants are expected to be from varied educational backgrounds ranging from illiterate to matriculation. Hence the facilitator is expected to tailor the training Programme accordingly.

Training Schedule

2 days Training Programme on “Community Managed Seed System”

From _____ : _____ To _____,

Type of Participants : **Community Resource Persons and Seed Producer Groups and Members of Seed Bank**

Sl. No	Name of the session	Duration	Time	Facilitator
Day-1	Introduction to the Millet Programme, Benefits and importance of the Method, Package of Practices of SMI			
	Session 1			
	Registration, Introduction Objectives of the Training Programme, Explaining Broader Objective of the Millets Programme.	30 Min	10.00 – 10.30	
	Tea Break	15 Min	10.30 – 10.45	
	Session 2			
2	Introduction of seed variety: Local and hybrid and its Advantages & Disadvantages. Current issues related to Seed System	60 Min	11.15 – 12.45	
3	Introduction of the Concept of Seed bank, its importance and necessity.	45 Min	12.45 – 1.30	
	Lunch Break	45 Min	1.30 – 2.15	
	Session 3			
4	Establishing a Seed Bank: Process and Steps	60 Min	2.15 – 3.15	
	Tea Break	15 Min	4.15 – 4.30	
5	Seed bank: Structure and Function	60 Min	4.30 – 5.30	

6	Feedback session	30 Min	5:30 – 6:00	
Day-2	Seed Production and formation, structure, function of seed producer group			
	Recap of the first day session	30 Min	9.00 – 9.30	
	Session 1			
	Seed Production: Package of Practices	60 Min	9:30 – 10.30	
	Seed Producer Group: Structure and Function	60 Min	10:30 – 11.30	
	Tea break	15 Min	11:30 – 11.45	
	Two case story on best Seed banks through a video	75 Min	11:45 – 1.00	
	Lunch Break	60 Min	11:30 – 1.00	
End of two Days Training				

DAY-1 INTRODUCTION TO THE MILLET PROGRAMME, BENEFITS AND IMPORTANCE
OF THE METHOD, PACKAGE OF PRACTICES OF SMI

Name of the Session: Registration, Introduction, Objectives of the Training

Session # 1: Registration, Introduction, Objectives of the Training Programme, Explaining Broader Objective of the Millets Programme.

Programme, Explaining Broader Objectives of the Programme.

Objectives: By the end of this session, the participants will

- Know each other and build a rapport everyone
- Understand the purpose of the training Programme
- Understand the broad objective of the Millet Programme

Duration: 30 Minutes (10 minutes: introductions, 10 minutes: purpose of the training Programme, 10 minutes: objectives of the Millet Programme)

Tools and Equipment: Chart paper, White board etc.

Method:

- 1) For Introduction the facilitator can use any game to make it alive and interesting.
- 2) Very briefly explain the main purpose of the training Programme and how could this be beneficial to the participants.
- 3) **Objective of the Programme:** following are the broad aims and objectives of the Programme. The facilitator has explain them in simple language so that the participant understand them clearly.
 - Increasing household consumption of millets by about 25% to enhance household nutrition security and to create demand for millets with focus on women and children.
 - Promoting millet processing enterprises at panchayat and Block level to ease processing at households and for value added markets
 - Improving productivity of millets crop systems and make them profitable with focus on women farmers.
 - Developing millet enterprises and establishing market linkages to rural/urban markets with focus on women entrepreneurs.
 - Inclusion of millets in State nutrition programs and public distribution system
- 4) Finally introduce the schedule to the participants

Session # 2: Introduction of seed variety: Local and hybrid, its Advantages&Disadvantages. Current issues related to Seed System

Name of the Session: Introduction of seed variety: Local and hybrid, its Advantages&Disadvantages. Current issues related to Seed System.

Objectives: By the end of this session, the participants will

- Know each variety of Seed existing and extinct, Local and hybrid.
- Know the Merits and Demerits of Local and Hybrid seeds
- Understand the reasons for decline of the indigenous variety and the issues related to seed

Duration: 60 Minutes (30 minutes: variety of seed, 30 minutes: issues related to the seed system)

Tools and Equipment: Chart paper, White board etc.

Method:

- The facilitator should ask each participants the name and variety of seed they know and write them on the white board as the participants answer.
- The facilitator should categorized the seeds on the basis of species, local and hybrid, existing and extinct.
- The facilitator should discuss the advantages and disadvantages of the local and the hybrid seed.
- The facilitator should then discuss the issues related to the seed system, the reasons for the decline of indigenous seed varieties, issues related to quality and timely availability of seed.
- Then the facilitator should introduce the concept of the seed bank, its importance and necessity.
- The facilitator should divide the participants into four groups and name each group after the name of one predominantly cultivated seed in their area.
- The facilitator should ask the group to discuss the following points among the groups;
 - a. Discuss the traditional method of seed conservation and seed production

- b. Discuss the different varieties of seed currently available in their area.
 - c. Discuss the name and varieties of seed those are now gradually declining and already identified as extinct.
 - d. Discuss the importance of saving preserving seed.
- Then the facilitator should ask each group to present their discussion.
 - The facilitator should note down the important points of each group on the white board.
 - The facilitator should then summarize each group's presentation.
 - The facilitator should give his own data on the decline of the seed and variety of seed existing.

1. Need of village seed bank:

- i. Informal seed sector includes own saved seeds, borrowing from others and local seed trade which contribute to about 75% of seed need.
- ii. Seed Producers groups will play a major role in seed multiplication and distribution in the village.
- iii. The concept of village seed bank (VSB) advocates village self-sufficiency in production and distribution of quality seeds with utmost transparency, mutual trust and social responsibility of the farmer towards fellow farmers.

2. Concept of village seed bank:

- i. A network of farmers is organized for exchange of seeds, information and ideas.
- ii. The certified seeds of the preferred varieties of the villagers are supplied from the village level seed bank to the selected progressive farmers for informal seed production.
- iii. Capacity building of those selected progressive farmers is done for informal seed production, this includes integrated crop management (ICM) including INM, IPM, rouging and post-harvest technology.
- iv. The seed growers after harvest of the crop will supply at least 50% of the total harvest to the village level Seed Producers Groups seed bank as per decision in the village in presence of SHG/CBOs members and village level seed bank members.
- v. Accordingly the seeds are procured by village level seed bank and stored in the godown for the next season. The same are sold to the farmers of the village before next sowing season.

3. Functioning of community seed bank:

- i. Any one from the community can be a member by paying a nominal annual fees decided by the CBOs/ SHG.
- ii. Certified seeds are supplied by the village level women SHG seed bank to the selected informal seed growers on credit.

Session # 3: Establishing a Seed Center: Process and Steps, Structure and Function.

Name of the Session: Establishing Seed Community Managed Seed System.

Objectives: By the end of this session, the participants will

- Know the importance of having a Seed Bank at the door step of farmers.
- Know the process steps involved in setting up of a seed bank at the community level.
- Know the structure and function of a Seed Bank.

Duration: 60 Minutes (30 minutes: Process and steps of setting up of a seed bank, 30 minutes: the structure and function a seed bank)

Tools and Equipment: Chart paper, White board etc.

Method:

- The facilitator should divide the participants into four to five groups (based on the numbers of participants)
- Ask them to write down the process and steps to set up a seed bank in their community.
- Ask each group to present the process steps and summarize the group presentation and add input to them.
- The facilitator should take the process steps into consideration and discuss the model process steps of setting up a seed bank.

Process Steps:

STEP 1: IDENTIFY THE CLUSTER OF VILLAGES

- The cluster can be a GP or a group of villages (Taking to the federation of SHGs) or a watershed.

STEP 2: CHOOSE VILLAGE REPRESENTATIVES

1. General discussion with the SHGs village wise (you chose the unit) in a specially organized meeting.
2. Let them choose one representative to represent them who:
 - Gives time for collection of indents from all groups
 - Attend the Seed Center Meeting every fortnight once (you may fix a remuneration for 6 months to start with – which will be paid by the groups/ or from the business generated)
 - They must take it as a service/ business partner – not as salaried employment.

STEP 3: IDENTIFY HOST VILLAGE IN THE CLUSTER (OR IN WATERSHED / GP)

4. Organize meeting of all the seed Center representatives and village reps of SHGs
5. Identify the host village, which will MANAGE THE SEED CENTER. The SHGs in all the cluster villages need to see it as their institution/ enterprise.
6. Ensure that :
 - a. The village is accessible by road with good transport (this is going to be the central place for seed transactions)
 - b. The village can have a storage place (either rented house or a house that can be built for this purpose or something that the government may give). Ensure that the land is available.
 - c. There must be at least 3 persons willing to take this as an enterprise.

STEP 4: IDENTIFY THE SEED CENTERS' WORKER/ GROUP

3. In the host village at least 3 women must come forward to take up and maintain the Seed Center on the basis of remuneration generated from the seed Center sales.
4. The 3 women + the village representatives chosen will form the Seed Center Management Team (you may coin appropriate names/ designations).
If there are 5 villages for e.g., there will be $5+3 = 8$ women

STEP 5: GET THE MANDATE FROM THE GP or GP OFFICIALS & the AGRIL DEPARTMENT

4. Discuss this program with the Block Agriculture Officer, and the Deputy Director, Agriculture of the District.
5. Organize a meeting of the seed Center Management Team along with the GP and watershed committee.
6. GIVE THE SEED CENTER A NAME and formally open a Center account in the name of the seed Center.

STEP 6: FORM THE REVIEW AND GOVERNANCE COMMITTEE FOR THE SEED CENTER

3. Let the SHGs and GP representative in the Host Village form a governance committee to provide oversight on the Seed Center.
4. They will :
 - a. Review the seed Center performance every quarter
 - b. If the Management Committee is not functional – will change it.

STEP 7: WORK OUT NORMS OF THE SEED CENTER (WITH THE GROUPS)

12. The village Seed Center representatives will collect the demand for seed before every cropping season (farmer, crop, variety and quantity).
13. The demand is aggregated at the SEED CENTER level.
14. Seed Center will procure the seed from well before the season from the following sources:
 - a. Department of Agriculture – sourcing subsidized seed
 - b. From research stations (foundation or certified seed)
 - c. From market (directly from the seed companies) – with support from the RRA Secretariat – bulk purchase at cheaper prices.
 - d. From farmers, if they give good quality seed.
15. Watershed Program provides financial support to purchase the first year's seed indent. Also provides wages for the village representatives as a % of the seed procured and distributed – in the first year till the first harvest comes.

5. The seed procured by the Seed Center will be given to the Village Representative as per their indent. The village representative provides the seed to the farmers. The transport costs if any, is borne by the Seed Center (provided in the watershed/ RRA budget) in the first year.
6. Village representative also ensures that the seed is sown in the farm.
7. The repayment norm is fixed: 1:1.5 or 1:2 depending on the type of seed.
8. Fix sharing norms : (for e.g.)
 - a. Out of the 1:1.5 seed returned
 - i. 1.25 goes to the seed Center
 - ii. 0.15 goes to the village representative
 - iii. 0.10 goes to the Seed Center Managers in the host village (3 women) for taking care of the seed throughout the year.
9. After harvest, the Village Rep collects the seed at the agreed ratio and returns it to the Seed Center. Seed Center pays back the quantities / amount to the Village Representatives. (experience suggests that this will work out wages of upto Rs.150 -200 per day time spent per person)
10. The seed Center managers or the village reps have the option of taking seed or cash.
11. Quality control mechanisms and training on harvesting of quality seed to be given to the village reps.

DAY-2

SEED PRODUCTION AND FORMATION, STRUCTURE, FUNCTION OF SEED PRODUCER GROUP

Name of the Session: Seed Production and Seed Producer Group.

Session # 1: Seed Production; Package of Practices, Seed Producer Group; Structure and Function, Case Story of Seed Bank and Seed Production

Objectives: By the end of this session, the participants will

- Know the Package of practice for seed production.
- Know the process steps involved in formation of seed producer group, the structure and function of Seed Producer Group.

Duration: 195 Minutes (60 minutes: Seed Production; Package of Practices, 60 minutes:Seed Producer Group; Structure and Function, 75 Minutes: Films on Case stories of Seed Bank and Seed Production)

Tools and Equipment: Chart paper, White board, Projector, etc.

Method:

- The facilitator should ask the participants into four groups and ask them to discuss the following point:
 - Traditional ways of seed selection, cultivation, collection and storage.
- The facilitator should ask each group to present the discussion and take note of the important point on the white board.
- The facilitator should discuss the importance and process steps of formation of Seed Producer Group.

1. Process steps for Seed Production and Formation of Seed Producer Group:

i. Formation and management of village seed producer group:

- e. The staff /CRPs will identify 10 progressive farmers in the seed production village who are willing to produce seed for the seed bank.
- f. The member from the identified Producer groups will take up seed production.
- g. Village seed bank will be considered as an enterprise and producers groups (CBOS) will avail credit required for the purpose available under RFS/ Bank as revolving fund.
- h. The village level CIG/producer groups will avail loan from RFS/ Bank while procuring seeds from the seed growers in case of funds constraint.

ii. Survey:

- c. A survey is to be undertaken by the staff to assess the ground situation and ascertain the demand for different types of seeds for various crops.
- d. The potential farmers (progressive farmers) and lands (good soil fertility, leveled land, bonded plots, with irrigation facility) are identified after which the requirement of different seeds is assessed.

iii. Capacity building of seed growers:

- k. The seed growers will be trained on production of quality seeds, storage and distribution twice once before sowing, second after harvest of crops) in clusters preferably in one of the seed production village.
- l. Potential trainers for capacity building of farmers on production of pure and healthy seeds of a specific crop and variety will be identified.
- m. Course module on technical details of seed production should be finalized by the potential trainers in consultation with agriculture Office/ Horticulture Expert.
- n. The Course content should include purity of seeds, maximum isolation distance in cross pollinated crops, rouging of off type before flowering, paste and disease management and separated threshing of each variety, proper drying and storage management.
- o. Posters and illustration should be used as teaching aids in the training programme and displayed in the wall of a building of seed production village.

iv. Arrangement of seeds and inputs for seeds growers:

- s. The staff will facilitate producer groups (where seed bank will be established) procurement of certified seeds of different crops and their varieties sufficiently ahead of the season.
- t. For procurement of seeds from authentic sources the producer groups should/will enroll themselves as a dealer of OSSC Ltd.
- u. To obtain dealership the producer groups/CIG will apply to the District Agriculture office/ Dy. Director, Agriculture for seed license.
- v. On obtaining seed license, producer groups will apply OSSC through its seed production officers stationed at jeypore for obtaining dealership. This will facilitate for obtaining seeds (certified) at subsidized rate from OSSC fixed by the Govt. for each season.
- w. On deposit of seed cost (subsidized cost) with OSSC, the seeds will be supplied by OSSC at the door step of the producer groups/CIG. The cost of transportation loading and unloading will be borne by OSSC.
- x. Furthermore producer groups will be entitled to get dealer commission from OSSC as approved by the Govt. from time to time.
- y. The producer groups will distribute the required certificate seed to the potential growers on credit. The cost of which will be realized from the seed growers at the time procurement of seeds.
- z. In case non-availability of seeds with producer groups then private will procure seeds from authentic sources i.e. OUAT and sale center of Agriculture Department.
- aa. The staff/CRPs will facilitate the seed grower for procurement of different agro-inputs (FYM/Compost/VermiCompost, Bio-Fertiliser other organics, Neem pesticides etc. as per requirement)

V) Sowing and cultural practices of the crops by growers:

The staff/CRPs will facilitate for the following.

- i. Timely sowing of seeds with proper treatment.
- ii. cultural practices i.e. seed rate, right spacing, seeding technique, nutrient management, appropriate soil and moisture conservation measures, pesticide and dosages, surveillance and management, removal of rogues before harvesting, right harvest time and avoiding mixing of different varieties by harvesting/threshing.

vi) Seed procurement by producer groups from Growers:

- s. After harvest of crop the seed should be dried to the prescribed moisture content.
- t. Prior to procurement, the quality of seeds will be inspected by grower, other farmers of the village and producer groups.
- u. Being satisfied with the quality, the seeds will be procured after proper grading.
- v. For grading purpose, the sieves will be fitted to a wooden frame. Threshed crop after preliminary cleaning will be poured over the sieves. The sieves will be shaken by two persons. The undesirable materials will pass through the sieves and graded seeds will be left over the sieves.
- w. The procurement price of seeds will be fixed by producer group's member and seed grower in consultation with VDC/VLSC members taking into consideration of prevailing market price. The procurement rate can be fixed 10% above the market price.
- x. The procured seeds will be packed in new 30kg capacity HDPE bags.

vii). Seed storage management:

- v. The seed procured by producer groups will be stored in storage building having control ventilation. High plinth, free from leaks and dampness, rodent and bird control.
- w. Before storing of seeds the storage building must be disinfected and cleaned.
- x. The doors and windows of storage godown to be opened daily for aeration except on rainy days.
- y. Seed containers are to be kept over racks.
- z. The seed container should be kept at 60cm away from wall.
- aa. The height of stacking should not be more than 2.4-3.0 meter and free space of 1.2 meter height should be left from the stacking height up to roof.
- bb. At least 30 cm space should be left between the seed lots for drawing of sample (for germination test) and inspection.