DIRECTORATE OF AGRICULTURE AND FOOD PRODUCTION, ODISHA, BHUBANEWSAR

Letter No-1M(04)-07/2019

10737

Date:- 09,04,2022

To

The

Dr. VaraprasadRao, Former Director, ICAR-IIOR/

Director, ICAR-IIMR/

Dean Research, OUAT/

The Principal Scientist, ICAR-NBPGR/

Dr S R Dua, Retd Scientist, ICAR-NRRI/

Representatives of SSTL/

Director, NCDS/

Mr Chakradhar Panda, OSSC, DA&FE/

Mr. Sanjay Auti, Maharashtra Gene Bank/

The CDAO-cum PD, ATMA

Angul/Bargarh/Bolangir/Gajapati/Ganjam/Kalahandi/Kandhamal/Koraput/

Keonjhar/Malkangiri/mayurbhanj/Nabarangpur/Nuapada/Rayagada/Sundargarh/Naya garh/Dhenkanal/Boudh/Jharsuguda

Sub:-Standard Operating Procedures (SOP) for Seed System for Landraces under Odisha Millet Mission.

Sir

With reference to the subject cited above, I am directed to communicate herewith the approved Standard Operating Procedures (SOP) for Seed System for Landraces under "Special programme for Promotion of Millets in Tribal Areas of Odisha".

Therefore it is requested to follow up the guideline for smooth implementation of the programme

Yours faithfully

Enclose.-As above

Director of Agriculture and Food Production,

Odisha, Bhubaneswar

10738 Memo No.

Copy forwarded to the Programme Secretariat, WASSAN for information and

necessary action.

Date: 02.04.2022

Director of Agriculture and Food Production,

Odisha, Bhubaneswar

Memo No: 10739

Date: 02.04. 2022 Copy of the minutes of the meeting on 4th virtual meeting of WGS, letter no.-39310, dated-17.12.2021 forwarded to the Collector-cum-Managing Trustee, District Mineral Foundation, Angul/Keonjhar/Sundargarhfor kind information and necessary action.

Director of Agriculture and Food Production.

Odisha, Bhubaneswar

10740 Memo No.

Date: 02,04, 2022

Copy submitted to the P.S to Special Secretary to Govt., Deptt. of A & FE (O) for kind information of Special Secretary to Govt., Deptt. of A & FE (O).

> Director of Agriculture and Food Production, Odisha, Bhubaneswar



STANDARD OPERATING PROCEDURES (SOP)

FOR

SEED SYSTEM FOR LANDRACES

An Initiative of
Directorate of Agriculture & Food Production

Department of Agriculture & Farmers' Empowerment
Government of Odisha



DAED-COIL-OCCO DODE 2020/04/2022

Abbreviation

| 1 | | |
|--------------|--|--|
| Abbreviation | Full Description | |
| AICRP | All India Coordinated Research Project | |
| ATMA | Agriculture Technology Management Agency | |
| BDA 2002 | Biological Diversity Act 2002 | |
| ВМС | Biodiversity Management Committee | |
| CDBs | Crops Diversity Blocks | |
| CGIAR | Consultative Group on International Agricultural Research | |
| CPR | Centre for Pulse Research | |
| CSC | Community seed centre | |
| CSIRO | Commonwealth Science and Industrial Research Organisation | |
| CSOs | Civil Society Organisations | |
| DAFE | Department of Agriculture & Farmers' Empowerment | |
|)AFP | Directorate of Agriculture & Food Production | |
| NA | Deoxyribonucleic acid | |
| | AICRP ATMA BDA 2002 BMC CDBs CGIAR CPR CSC CSIRO CSOs DAFE DAFP | |

| 14 | FOLU Food & Land Use Coalition | | | |
|----|--------------------------------|---|--|--|
| 15 | FPOs | Farmer Producer Organisations | | |
| 16 | ICAR | Indian Council for Agriculture Research | | |
| 17 | IIMR | Indian Institute of Millets Research | | |
| 18 | IIOR | Indian Institute of Oilseeds Research | | |
| 19 | IIPR | Indian Institute of Pulse Research | | |
| 20 | IISS | Indian Institute of Seed Sciences | | |
| 21 | KVK | Krishi Vigyan Kendra | | |
| 22 | MSSRF | M S Swaminathan Research Foundation | | |
| 23 | NBPGR | National Bureau of Plant Genetic Resources | | |
| 24 | NCDS | Nabakrushna Choudhury Centre for Development Studies | | |
| 25 | NRRI | National Rice Research Institute | | |
| 26 | ОММ | Odisha Millets Mission | | |
| 27 | ossc | Odisha State Seed Corporation | | |
| 28 | OSSOPCA | Odisha State Seed And Organic Products Certification Agency | | |

| 29 | OUAT | Odisha University of Agriculture & Technology | |
|----|------------------|---|--|
| 30 | PKVY | Paramparaghat Krishi Vikas Yojana | |
| 31 | PPVFRA | Protection of Plant Varieties and Farmers' Rights Authority | |
| 32 | PS | Programme Secretariat | |
| 33 | PVT | Participatory varietal trials | |
| 34 | RRA | Revitalisating Rainfed Agriculure Network | |
| 35 | SAU | State Agriculture University | |
| 36 | SOP | Standard Operating Procedures | |
| 37 | SPA | State Professional Agency | |
| 38 | SPPIF | Special Programme for promotion of integrated farming | |
| 39 | SSTL | State Seed testing laboratory | |
| 10 | UN | United Nations | |
| 11 | WASSAN | Watershed Support Services & Activities Network | |
| 12 | WSHĞ | Women Self Help Groups | |
| 3 | WG Working Group | | |

| Contents | | | | | | |
|--|--|--|--|--|--|--|
| 1. Introduction | | | | | | |
| 2. Context | | | | | | |
| 3. Process of Landrace Documentation Release & Production | | | | | | |
| 3.1 Landrace Documentation and Characterization | | | | | | |
| 3.1.1 Crops Diversity Blocks (CDBs): CDBs | | | | | | |
| 3.1.2 Seed Melas / Fairs | | | | | | |
| 3.1.3 Material Transfer Agreements with Technical Institutions | | | | | | |
| 3.1.4 Community Seed Centres | | | | | | |
| 3.2 The Processes Of Varietal Release For Landraces | | | | | | |
| 3.2.1 Standardizing Landraces Documentation Characters | | | | | | |
| 3.2.2 Landraces Varietal Evaluation | | | | | | |
| 3.2.3 Crop / Seed Standards and Certification Guidelines | | | | | | |
| 3.2.4 Package of Practices | | | | | | |
| 3.2.5 Landraces Variety Name, Release and Notification | | | | | | |
| 3.3 Quality Seed Production | | | | | | |
| 3.3.1 Quality Seed production of native germplasm | | | | | | |
| 3.3.2 Seed Certification | | | | | | |
| 3.3.3 Procurement and Marketing of Seeds | | | | | | |
| 3.3.4 Maintenance Breeding | | | | | | |
| 4. Digital Seed Open Platform | | | | | | |
| 5. Capacity Building | | | | | | |
| 6. Risk Mitigation | | | | | | |
| 7. Institutional Mechanism | | | | | | |
| 7.1 Anex Committee On Seed Systems For Landreses | | | | | | |

Department of Agriculture & Farmers Empowerment

OUAT / ICAR

7.2

7.3

- 7.4 Directorate of Agriculture/ Horticulture7.5 OSSOPCA
- 7.6 State Seed Testing Laboratory (SSTL)
- 7.7 State Project Management Unit under OMM/SPPIF
- 7.8 District ATMA
- 7.9 Community Based Organisation (CBO)
- 8. Process Steps for Participatory Seed Standard Development
- 9. Budget Allocation for Pilots on different crops......15

1. Introduction

Rainfed agriculture contributes to 40% of total food grains (90% of minor millets & 87% of coarse cereals) and is the base for India's nutritional security. More than 600 public institutions and 400 private seed companies' together serve seed needs related to 12 major field crops and 11 major vegetable crops in the country. But more than 50 crops are grown in mixed farming in rainfed areas without any formal seed systems.

More than 40,000 landraces or farmer varieties are documented over thousands of years by Indian farming communities in rice alone. It is estimated that many more landraces have been lost. NBPGR has collected more than 4.3 lakh accessions of about 1500 crop species collected mostly from farmers' fields. Similar situation is also true for other crops. Out of the seed demand of 86 million ha of rainfed area, 40 to 60% of total seed demand is met from farm saved seeds.

Out of 3,000 high-yielding varieties/hybrids of field crops have been developed from 1950s to 2014, 1000 varieties belong to rice alone. But of these enormous diversities,

fewer than 40 varieties often occupy most of the rice area under cultivation. The large agrodiversity of landraces and farmer varieties that provided a basis for the above developments is now fast eroding, threatening the future development.

Vanishing biodiversity is also hampering our potential to harness organic farming initiatives. This is especially true in case of organic farming, where one needs varieties which are less responsive to chemical inputs. Hence even though largest number of organic farmers in the world are in India, India occupies 9th position on the organic production.

The two national acts viz., Biological Diversity Act 2002 and PPVFRA, 2001 recognise the rights of communities and farmers. While it is important to ensure that farmers' varieties are registered to prevent bio-piracy, it is equally important to ensure that the same varieties remain 'open source' without anyone claiming exclusive rights. Farmers' varieties were always "open source" in the Indian agricultural system.

2. Context

Landraces are ecotypes cultivated for a long time in their pristine habitats. Farmers have selected them for traits based on their ecological suitability, cooking habits and consumption habits. The traits that characterize such landraces express often only in their adaption sites and may not express fully in other sites. Hence, landraces are very location specific.

Experiences emerged from Participatory varietal trials under 'Odisha Millet Mission (OMM)' have shown that some of the millet landraces under cultivation are performing better than the released varieties under different agronomic practices. Several such landraces are in demand, but not easily accessible to farmers. This is due to lack of suitable seed systems for landraces. The formal seed systems only cater to notified varieties and is not suitable for landraces.

Realizing this need, Department of Agriculture & Farmers' Empowerment, Government of Odisha formed a Working group on Seeds under Odisha Millets Mission to create enabling framework for landraces managed by community institutions. Accordingly, Working Group on Seeds under Odisha Millets Mission evolved this SOPs for seed systems for landraces. This document was developed under chairmanship of Dr K Varaprasad, Former Director, ICAR-IIOR in consultation with ICAR-IIMR, OUAT, CPR-Berhampur, OSSC, NCDS, RRA Network and WASSAN.

Though this SOP for Seed Systems for Landraces is developed for millets, this framework is suitable for all the crops including horticulture. Necessary experts and farmers with experiences in landraces of different crops may be involved to contextualise this SOP for seed systems for other crops.

3. Process of Landrace Documentation Release & Production

Following are the key process steps involved in the development of seed system for landraces.

1. Landrace Documentation and Characterization

3.1.1 Crops Diversity Blocks (CDBs): CDBs may be identified within a district / biodiversity hotspot at sub-district level which may form a unit area for operation. Conservation, characterization, purification, and multiplication can be taken up at CDBs. Business lines for indigenous seed sale in both formal and informal chain may be taken up by community seed centers anchored by WSHGs/FPOs. A larger exercise in project mode to cover all agro-biodiversity blocks of Odisha shall be taken up at one time, including activities identifying other actors and setting up

institutional mechanisms. It is critical to set up and support mechanisms for collection of landraces, seed production, primary multiplication and conservation. Samples shall be stored at SSTL/National Gene Banks for scientific conservation, characterization, purification, and multiplication.

- 3.1.2 Seed Melas / Fairs: Seed Melas will be organized in the Agro-biodiversity hotspots preferably at GP or block level with objectives of collecting passport data of landraces. Farmers, seed conservators, community institutions (WSHGs/FPOs/BMCs) shall be mobilized to share their traditional wisdom and germplasm. Collected materials shall be registered in the name of the community. This will be supported by District ATMA. Passport data of the material collected with traits of value in use and cultivation will be compiled into the Digital Platform and compared with the information compiled under earlier exercises.
- 3.1.3 Material Transfer Agreements with Technical Institutions: A exercise shall be initiated with ICAR, SAU, CGIAR, UN and other technical institutions where genetic material of different crops of Odisha are available. Partnership shall be explored to receive the sample of original germplasm for sustainable use in Odisha through community managed seed banks.
- 3.1.4 Community Seed Centres: Community institutions such as FPOs/ WSHGs/ farmer collectives shall anchor community seed centres which will implement CDB activities. A community seed banks with its infrastructure, equipment, other facilities, operational guidelines with sustainability and basic human resource needs to be defined. All the landraces identified in the Block during the exploration are conserved with proper documentation, displayed for observation and small quantities of seed are made available for registered seed conservers for their use at CSC. Community Seed Center shall select seed producers based on the criteria having assured irrigation, productive land for taking up seed production. CSCs may undertake registration under PPFVRA of the germplasm collected under the CDBs.

3.2.1 Standardizing Landraces Documentation Characters: A comprehensive and feasible trait set of minimal descriptors for characterization of native germplasm shall be evolved in consultation with PPFVRA, ICAR, OUAT, CSOs, Community institutions and custodian farmers. Crops with considerable landrace diversity and coverage shall be given priority. An expert sub-committee shall be constituted to finalize descriptors for native germplasm. These also will form the basis for characterization and developing the digital repository.

3.2.2 Landraces Varietal Evaluation: A minimum of two years and 3 locations data along with farmer demonstrations' data from about 10 farmers shall be considered for landraces varietal release. Yield, pest resistance, nutritional value, climate resilience, minimal chemical input shall be considered in addition to and quality traits for evaluation. Yield performance over the standard checks need not be a mandatory criterion for release of landrace varieties. The process will also look at the value in use and cultivation as observed by the farmers while collecting the passport data. Participatory varietal selection process shall be adopted in identifying suitable landraces for production.

3.2.3 Crop / Seed Standards and Certification Guidelines: An expert sub-committee shall be constituted to finalise field and Seed standards for native landraces. These shall be evolved in consultation with PPFVRA, ICAR, OUAT, CSOs, Community institutions and custodian farmers. Based on the Field / Seed Standards developed, certification guidelines will be developed for source/ foundation seed, certified seed and truthfully labelled seed by the OSSCPCA. Seed Certification will mandatory when landraces are to be released under formal subsidized seed chain. For sale in private markets and exchange between the communities, this will not be required.

3.2.4 Package of Practices: Detailed package of practices be recorded during the

evaluation period and submitted at the time of variety proposal for approval – a detailed note and format will be circulated.

3.2.5 Landraces Variety Name, Release and Notification: Original landrace name be retained as far as possible at least with a prefix or suffix, if required. However, original identity with its location be recorded as an alternate identity. A landrace may be released as a variety and only after two years of its release it can be applied for notification. The two years gap between the release of a variety and notification will help in making large number of landraces available for cultivation and, only such varieties that need large seed multiplication and spread can be notified. Apex Committee may facilitate national level release of landraces from Odisha that have potential and demand beyond the state boundaries.

3.3 Quality Seed Production

3.3.1 Quality Seed production of native germplasm: Financial Support for quality seed production of native germplasm through CSCs through CDBs for a period of 5 years. At least for the first 3 years facilitation costs of a CSO would need to be supported. This support should be provided for different aspects of seed value chain such as infrastructure, working capital, capacity building of farmers and other local stakeholders, so on so forth. Seed production shall be taken up based on the System of seed demand generation. Process of seed demand generation shall be arranged by the farmers' organisations in collaboration with the district ATMA officials. Indent should be received at least one month before sowing for seed production. This may be taken up in the blocks of OMM, SPPIF, Natural farming and other special programs. Based on the experiences, this can be later scaled up to other regions.

3.3.2 Seed Certification: Seed certification shall be taken up by OSSOPCA as per standards approved by Apex committee. Block level Para Seed Certifiers for quality

assessment shall be trained by OSSOPCA for this purpose. OSSOPCA shall also train the Community institutions on process to ensure seed quality is maintained. The CSC will form a Quality Assurance Committee to provide oversight on the seed production and compliance with the norms. A trained para-seed certifier identified by the Seed Center will make field visits to ensure compliances and to support to the seed producing farmers in technicalities. All the documentation required will be maintained at the seed producer and at the CSC compliances shall be met. The OSSOCPA will identify and reward the best CSB annually and extend all the support to inspire and train such other CSBs in the Block and the seed conservers registered there. It may even encourage biodiversity conservation by organizing annual seed melas for the conservers.

3.3.3 Procurement and Marketing of Seeds: The CDBs and the associated seed production is anchored by a farmers' organization with interest on establishing a business line on quality seed supply of landraces. Price fixation needs to be left to be decided by the organization based on the costs involved in multiplication and other factors. Proper records of seed production, procurement, stocks etc., need to be maintained by the organization. The basic norms of seed procurement from registered seed centers and the processing, packing and labelling guidelines for each crop will be followed as per rules for seed standards approved by the Apex committee.

In addition, Traits of value may be verified based on nutritional, climate resilience, organoleptic properties etc. which should be included in all awareness meetings. A brand building plan may be developed for landraces to enhance demand. Priority be given for marketing strategies and branding focusing on livelihoods, food and nutritional security. Budgetary support shall be made for this purpose.

3.3.4 Maintenance Breeding: System of maintenance of variety retaining the key traits shall be recommended by a subcommittee. Standards of isolation distances or times, rouging and the process of certification of maintaining foundation seed shall

he approved for each variety at the time of release. The Gene Bank at SSTL will have the responsibility for developing and disseminating such proto-cols.

4. Digital Seed Open Platform

A state level Open-Source Digital Seed Platform for Landraces will be established. This will be hosted by the Gene Bank of SSTL. The digital platform will provide easy access to data on landraces seed accessions with the CSCs and SSTL. It will also have provisions for connecting the seed savers and to enable seed exchange. The community seed centers will be profiled in the platform giving them visibility and connectedness.

5. Capacity Building

A system for building capacities of all the multiple stakeholders and actors in the Community Managed Seed System for Landraces will be established and adequately provisioned with budgets for the initial 5 years to develop training modules, communication material and training. Review of the training material for revision be considered on every two years. Focus will be on preparation of conservation and seed certification and seed production manuals, varietal release manual, seed centre management, PPFVRA registration, so on so forth.

6. Risk Mitigation

Farmers' decision on choice of crops and varieties changes quickly with respect to emerging weather and market scenarios. Even after well-defined indents and seed demand estimation, there could be circumstances where the farmers' organisations will be left with unsold stock. To mitigate this risk, a risk mitigation fund may be created at the ATMA level. In the event of excess supply, the farmers' organization may choose to sell the produce at grain price in the market and a 25% of the price of seed sold in such circumstances may be compensated by the risk fund for the volume certified. This mechanism can be for a period of initial 5 years till the time to the supply chain is firmly established.

7. Institutional Mechanism

Following are the roles and responsibilities of different stakeholders

7.1 Apex Committee on Seed Systems For Landraces: An Apex Committee will be constituted by the Agriculture Production Commissioner cum Additional Chief Secretary, Government of Odisha/Principal Secretary, Department of Agriculture & Farmers Empowerment, Government of Odisha. It will consist of following members:

- Vice Chancellor, Orissa University of Agriculture & Technology, Bhubaneswar
- Principal Secretary, Department of Agriculture & FE, Government of Odisha
- Special Secretary, Department of Agriculture & FE, Government of Odisha
- Director, Agriculture & Food Production/Horticulture

- Representative, PPFVRA
- Representative, Odisha State Biodiversity Board
- Representative, ICAR-NRRI/IIPR/IIMR/IIOR/NBPGR/IISS/Others
- Representative, SAMBHAV/ MSSRF/Rajendra Desi ChasaGabeshana Kendra
- Representative, OSSOPCA/OSSC/SSTL/OMM/SPPIF/SBC
- Representative, WASSAN/RRA Network
- Representative, NCDS
- Representative, FPOs
- Farmer Representatives (2)
 - Approval of policies, guidelines and amendments related to indigenous landrace systems.
 - Constitute LR Varietal committee and such other subcommittees for review and release of indigenous landraces and delegate specific responsibilities from time to time with subsidy support.
 - Review and accept or revise or reject the recommendations received sub committees.
 - Review and implementation of the indigenous landrace systems.
 - Approves annual action plan and budgetary allocation for conservation and sustainable use of landraces in the state.
- 7.2 Department of Agriculture & Farmers Empowerment
- · It will be nodal department to oversee the implementation of seed systems for

landraces

- It will allocate the annual budget
- It will review the progress on time-to-time basis
- Land Races Seed Cell shall be established under the Department of Agriculture & Farmers Empowerment.

7.3 OUAT / ICAR

- OUAT/ ICAR shall deploy concerned scientists involved in characterization and evaluation of landraces, plant breeding and seed production to the different technical sub-committees for LR release.
- It will ensure participation of KVK/AICRP centers in the CDB and other process.
- It will participate and provide inputs in the development of manuals on different topics for implementation of LR seed system.
- It will also participate in the quarterly meetings at state level.
- Landraces Seed Cell shall be established under the Department of Agriculture & Farmers Empowerment

7.4 Directorate of Agriculture/ Horticulture

- Each directorate shall identify priority crops and Agro-biodiversity blocks for taking up the LR seed system.
- Each directorate shall nominate a one person to LR seed cell.

- Concerned directorates shall coordinate with district authorities for timely implementation of the LR seed system.
- It will review the progress on time-to-time basis.

7.5 OSSOPCA

- It will undertake responsibility of seed certification as per standards approved by the apex committee.
- It will select para seed certifiers and provide training to them for the purpose of certification.
- It will also undertake capacity building of farmer collectives/farmer producer organisations on landrace certification process.
- It will monitor the LR production by the farmer collectives/FPO through regular field visits.
- Certification manual shall be developed in consultation with LR varietal release committee.

7.6 State Seed Testing Laboratory (SSTL)

- SSTL will oversee conservation, production and maintenance breeding of quality landrace material of well performing landraces in partnership with CSC in CDBs.
- Samples of all landraces of Odisha shall be stored in the SSTL gene bank and

will be reference bank for all landraces.

- It will also undertake in-situ conservation of landraces
- It will also host the opensource digital landrace repository with landrace characterization.
- It will also undertake nutritional testing and DNA finger printing of different landraces.
- It will provide the information to LR varietal release committee and members of Apex committee as per requirement.
- It will undertake all the coordination related to LR varietal releases.
- It will be supported by adequate budgets for the same.

7.7 State Project Management Unit under OMM/SPPIF

- SPMU in coordination with Program Secretariat (PS)/State Professional Agency (SPA) for OMM/SPPIF/ORAM shall facilitate the implementation of the LR seed system in the OMM and SPPIF districts in their project areas.
- SPMU/PS/SPA shall coordinate and explore partnerships with different institute/agencies such as CSIRO, FOLU India, RRA Network and others to bring in best practices and innovations.
- SPMU/PS/SPA will support the DA&FP in monitoring at state and district ATMA at district level. It will also facilitate the learning events.

7.8 District ATMA

- District ATMA under chairmanship of Collector & District Magistrate will be responsible for implementation and monitoring of LR seed system.
- CDAO cum PD ATMA will be nodal officer from ATMA to coordinate the activities.
- Officers of ATMA shall regularly monitor the conservation and seed production work of FPOs.
- ATMA shall also facilitate in the collection of landraces through their staff.
- ATMA will oversee capacity building of the FPOs/ farmers.
- It will convergence the existing activities of different projects for supporting backward and forward linkages of FPOs.
- In the OMM and SPPIF districts, PS/SPA shall support ATMA.
- Bi-monthly review meetings shall be chaired by Collector & District Magistrate.
- CDAO cum PD ATMA may identify a NGO working in the block may be selected for block facilitating agency through Eol for supporting FPOs.
- It will enter into MoA with the block level facilitating agency
- Facilitating agency shall support the FPOs in community mobilisation, CDBs, indent preparation, marketing and procurement of seeds.

7.9 Community Based Organisation (CBO)

- Community managed seed centres shall be anchored by FPCs/Cooperatives/WSHG Federations or any other form of CBOs.
- It may be anchored by CBO at block level. Based on requirement, it can also have sub –centers.
- They will have mandatorily register with landrace cell at Department of Agriculture & Farmers' Empowerment, Government of Odisha
- Ranking criteria shall be developed for their selection.
- They will undertake conservation of local landraces through biodiversity blocks.
- They will undertake seed production of landraces with support of ICAR, OUAT, SSTL, OSSOPCA, ATMA and NGOs involved in the concerned projects.
- Landraces can be sold in private markets or to government at subsidized price as per the rules approved by the Apex committee.

8. Process Steps for Participatory Seed Standard Development

- Step 1: Shortlisting of key blocks for finalizing the seed standards for landraces
- Step 2: Once blocks and districts are finalised. Key major landrace shall be identified
- Step 3: Data analysis from the preliminary basic study shall be completed and shall be shared through a consultation with the ICAR/OUAT/KVK/DA&FE
- Step 4: Based on the feedback, a feasibility analysis shall be carried out.

Accordingly further shortlisting of the landraces shall be completed.

Step – 5: After shortlisting of suitable landraces, a participatory tool and module

shall be developed. This module will have detailed exercises to get information

from the farmer understanding of seed standards, varietal/landrace cultivable

use, understanding economic loss vis a vis genetic purity, sellers and their

perspectives, so on so forth

Step – 6: Based on the exercise enumerated in step 5, a seed standard for key

landraces of the major crops shall be documented and share in report form.

Further consultations or sharing workshops shall be held to finalise the

standards

Step - 7: The seed standards thus finalized shall be approved as per the

process finalized by the competent authorities.

Step 8: Mass selection, Seed purification and seed multiplication shall be taken

through WSHGs/FPOs under the OMM and SPPIF projects.

9. Budget Allocation for Pilots on different crops

· A program can be taken up in select blocks in the agro-biodiversity hotspots. It

is important that the program is managed by a dedicated team. This shall be

piloted under the OMM/SPPIF/ORAM blocks in 1st phase.

Approved by Respected Agriculture Production Commissioner-cum-ACS to Govt.,

Department of A & FE, Odisha at Noting-95 of OSWAS file No.-DAFP-SPIII-OSSC-

0005-2020.

Approved

Director of Agriculture and Food Production

le le la

Odisha, Bhubaneswar

Budget for Piloting the Seed System for Landraces

| SI No | Particulars | Unit cost in Rs Lakh | No of Units | Total Budget in Rs Lakh |
|-------|---|-------------------------|-------------|----------------------------|
| 1 | Virtual Consultations at different stages by SPMU | | 1U | 0 |
| 2 | District Workshops @2 per district @ 7 districts @40 Nos per workshop@ 400 per person per day (OMM Cost Norms) | 0.32 | 14 | 4.48 |
| 3 | Development of ODK App | by OMM | | 0 |
| 4 | State 5 days Capacity building on the participatory tool@40 Nos@ 1000 per person per day @ 5 days @ 2 Trainings (OMM Cost Norms) | 2 | 2 | 4 |
| 5 | Village wise meetings @ 50 people per meeting @ 30 villages per block @ Rs 4000 per meeting @ 10 No blocks | 1.2 | 10 | 12 |
| 6 | Design and development for report by OMM | | 0 | |
| | Honorarium and Human Resources | | | |
| | Advisor @Rs 10000 per day @ 7 days a month @ 70 days | 0.1 | 70 | 7 |
| 8 | Technical Experts from Working Group @ Rs 5000 per day @ 10 days a month per expert @ 2 Nos @ 200 days | 0.05 | 200 | 10 |
| | Project Coordinator @ Rs 40000 per month + Rs 10000 for travel | 0. 5 | 10 | 5 |
| | Travel for Working Group Members | LS | | 5 |
| - | Total in Rs Lakh | | | 47.48 |