



Food and Agriculture
Organization of the
United Nations

Support for quality seed of local landraces/farmers' varieties
(LRs/FVs) through community-managed seed systems (CMSS) in
Odisha and other rainfed areas in India

TCP/IND/3905

Project document and environmental and social safeguards annexes

This document is intended to use solely for the purpose of FAO projects disclosure.

March, 2024

1. RATIONALE

Odisha in Eastern India is primarily an agrarian state. It is also known for its crop diversity and is one of the centres of origin for rice. Its Koraput region is not only one of the 22 agrobiodiversity hotspots of India, but also recognised as a GIAHS by FAO. There are also several indigenous and farmers' varieties (FVs) of paddy and other crops in the state. The importance of landraces (LRs) as sources of genetic variability and the maintenance of genetic diversity is well-recognised as an important tool for adaptation to climate change. This is of particular importance as seed systems face recurring and extreme climatic challenges. The local LRs and farmers' varieties (FRs) are unique and are known to be nutritionally rich and being locally adapted perform under variable climate regimes.

Production in the state focusses on rice as the main food crop and sugarcane as the main cash crop; a wide variety of other local crops, such as millets and vegetables are also grown. The focus on higher productivity commercial crops makes farming more risky in the rainfed areas. Therefore, there is an urgent need for building economic and environmental resilience in disaster-prone agrifood systems and securing smallholders against climate risks in the state. Odisha's crop diversity can be harnessed for its post-disaster response by reviving local traditional varieties that are climate resilient and can contribute to livelihoods, food and nutritional security and potentially capture the growing market for 'forgotten foods.'

There are significant knowledge and evidence gaps in the formal seed system with respect to the availability, accessibility and quality of LR/FVs, which therefore need to be addressed. Limited agronomic, genetic data and associated farmers' knowledge of LRs/FVs as per farmers' own VCU is documented in the formal seed system. There is also a need to strengthen the policy environment for LR/FVs. Currently, at the national level there are no established seed systems for promoting either landraces or farmers' varieties and the existing seed protocols are designed for a few notified varieties, hybrids, etc. and not the LRs/FVs. This requires seed production protocols to be developed and piloted.

The GoO has taken two pioneering initiatives:

1. Issued *Standard Operating Procedures (SOP) for Seed System for Landraces* under the Odisha Millets Mission (OMM) and approved the same in April 2022;
2. And constituted a 'Landrace Varietal Release Committee (LVRC)' for the release of traditional millet varieties as certified seed, the first State to develop a protocol for the release of millets landraces in May 2023.

The GoI seeks FAO's technical assistance to be able to implement the said seed SOP end-to-end and extend the SOP to crops other than millets in Odisha. The GoI would then like to use the Odisha experience to promote climate resilient LRs/FVs in other rainfed areas of the country, including through the work of NRAA.

The gender dimension is an important aspect of all this work. In this TCP, tribal women are recognised as knowledge-holders and play an important role. Many women seed conservors have also been duly recognised by the GoI.

2. EXPECTED RESULTS

IMPACT	Climate resilience of local seed systems is enhanced SDGs 2, 13 & 15			
OUTCOME	State functionaries and state policy actively promote local landraces/farmers' varieties to enhance biodiversity conservation and climate resilience through an established framework for community-managed seed systems (CMSS) and supportive policy pathways			
Indicator	Baseline	Target	Means of Verification	Assumptions
LRs/FVs are in use and a seed system managed by local communities	1 Partially operationalized seed SOP for LRs/FVs in Odisha	Improved situation for LRs/FVs in selected sites of the state	<ol style="list-style-type: none"> 1. State government documents 2. District-level action 3. Evidence of the conserved LRs/FVs 	<ol style="list-style-type: none"> 1. All actors in the seed chain cooperate 2. The communities involved feel sense of ownership
OUTPUT 1	Model local varieties are made known			
Indicator	Baseline	Target	Means of Verification	Assumptions
LRs/FVs of climate-resilient varieties of millet and non-millet crops are identified	1 (Selected varieties of Millets)	LRs/FVs of at least 3 other millet and non-millet crops are identified and their uses made known	Survey report and its data	There is agreement on which LRs/FVs to support.
ACTIVITIES for achieving Output 1				
Title	Description			
1.1 Inception workshop	DAFE, GoO and FAO hold an inception workshop in Bhubaneswar, to agree on the frame for implementation of the TCP activities and the ToR for the survey.			
1.2 LoA for survey of CDBs and LRs/FVs	Service provider to undertake the survey in selected sites is identified and LoA is issued for the task. The LoA partner will help identify the crop diversity blocks (CDBs) and potential lines of LRs/FVs. The survey will cover gender specific considerations.			
1.3 Validation workshop	Survey findings are shared with the relevant communities and state partners.			

OUTPUT 2	Framework of standards, protocols, and principles for both in situ conservation and the documentation of LRs/FVs as per VCU for local communities is developed			
Indicator	Baseline	Target	Means of Verification	Assumptions
A framework is outlined	0	1	State official documents	There is consensus on the approach. There is FPIC of the local communities.
ACTIVITIES for achieving Output 2				
Title	Description			
2.1 Collation of existing materials	Existing standards, protocols and principles are collated and reviewed from the perspective of their relevance to the SoP.			
2.2 Community consultations	Guided by the LTO, the LoA partner will conduct community consultations on FPIC, in situ conservation and documentation methodologies in selected locations in Odisha within six months of the project. Equal access to women will be ensured.			
2.3 RTD on community seed banks	The three national experts will support a round table discussion (RTD) to be organized by DAFE in Odisha on community seed banks along with the seed actors identified in the project process.			
OUTPUT 3	End-to-end support for LRs/FVs is piloted through a CMSS (in line with SOP) on selected location(s) in Odisha			
Indicator	Baseline	Target	Means of Verification	Assumptions
Implementation gaps in SOP are addressed	0	At least in one location the SOP is fully operationalised	Generation of new evidence (surveys) State's own M&E framework for the SOP	There is political support for all activities and the cooperation of all seed actors in the state is there.

ACTIVITIES for achieving Output 3				
Title	Description			
3.1 Community Seed Centres	Community Seed Centres (CSCs) in consultation with the communities are set up DAFE, GoO. The national experts on community seed banks and on law and policy on seeds, provide the support for issues around documentation, repatriation, production and registration of seeds collected under the CDBs.			
3.2 Maintenance breeding	Guided by the LTO, the international and national experts will support the deliberations of the sub-committee set up by DAFE for maintenance breeding of LR/FVs.			
3.3 Seed standards and certification guidelines	The national experts will support the expert sub-committee established under the SOP to finalise field and seed standards and certification guidelines for LR/FVs.			
3.4 Certification Capacity building	Training modules and communication materials for training materials on CMSS and certification to be developed.			
3.5 Digital open-source seed platform	The national experts will support the work of DAFP & DAFE on the establishment of the state-level open-source digital seed platform.			
OUTPUT 4	Policy paper on the possibilities and constraints under the existing legal and policy framework for LR/FVs is prepared			
Indicator	Baseline	Target	Means of Verification	Assumptions
Policy paper is ready	0	1	Paper is circulated	The legal analysis and policy pathways are acceptable to the project partners.
ACTIVITIES for achieving Output 4				
Title	Description			
4.1 Baseline work	All the relevant laws and policies are collated and analysed from the perspective of the SOP and needs of the LrVRC.			
4.2 Paper writing	Guided by the LTO, and supported by the international expert, the national consultant on law and policy helps to prepare a paper on both constraints and opportunities under the existing legal and policy framework in India.			
4.3 RTD on laws and policies	Round Table Discussion (RTD) on relevant laws and policies around LR/FVs (with focus on both constraints and opportunities).			
OUTPUT 5	National experience-sharing workshop to process the learnings of the Odisha pilot encourages other states to adopt/adapt			
Indicator	Baseline	Target	Means of Verification	Assumptions

Workshop conducted for experience-sharing and capacity development	0	1	Event report and documentation	All coorganisers come together to make it possible and the required participants are available.
ACTIVITIES for achieving Output 5				
Title	Description			
5.1 Organizing committee established	In year two the project partners will put together an organizing committee with responsibilities for organizing a national-level workshop to share the learnings from the Odisha process with other selected rainfed states.			
5.2 Preparations	The various preparations for the national workshop, including participants lists, resource persons, travel and venue arrangements are undertaken.			
5.3 National workshop held	The national-level workshop will be held in New Delhi in the latter half of year two of the TCP.			
OUTPUT 6	Set of Information, Education and Communication (IEC) materials developed and circulated for capacity building and advocacy			
Indicator	Baseline	Target	Means of Verification	Assumptions
Materials	0	As per needs of the TCP	Copies of all materials are available	All seed actors contribute to the content of the materials
ACTIVITIES for achieving Output 6				
Title	Description			
6.1 List of IEC materials and documentation strategy agreed upon	List of IEC materials, including training modules, posters, handouts and leaflets, will be agreed amongst the project partners and the documentation expert for the field activities and the 'beej melas'/seed fairs.			
6.2 Materials prepared	Content for the IEC materials, including on FPIC procedures, ABS arrangements and the Digital Platform for open-source seeds will be shared.			
6.3 Communication strategy	Dissemination will be undertaken targeting the communities and state seed actors.			

3. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

The FAO Project Task Force (PTF) ensures full technical, operational and administrative support for the duration of the project. This includes overseeing the overall delivery of the project and

securing technical support needed to smoothly implement activities. The FAO Representative in India will be the Budget Holder (BH) and chair of the PTF. The Agriculture Officer based in the Regional Office for Asia and the Pacific, Bangkok, Thailand will be the Lead Technical Officer (LTO) and will be responsible for the technical oversight of this TCP.

The Department of Agriculture and Farmers' Empowerment (DAFE) of GoO will be the main project counterpart, who will work with FAO towards the delivery of project activities on the ground. The MoA&FW will appoint a National Project Coordinator (NPC), at no cost to the project, to be responsible for the overall in-country project coordination and implementation. The NPC will work closely with national stakeholders, FAO technical officers and staff, and project consultants in all aspects related to the implementation of the project.

The project will also work closely with relevant stakeholders that relate to one or several outputs of the project. Stakeholders include the Odisha Millets Mission/WASSAN and the local seed actors in the state. These stakeholders will be consulted during the implementation of the project and invited to participate where pertinent.

To the degree possible, the project will ensure that women are represented in all technical consultations and meetings, as well as relevant trainings that will be carried out throughout the project duration. When applicable, the logical framework will include specific outputs/activities aimed at promoting gender equality and women's empowerment.

The implementation of the project is subject to the TCP General Provisions. The government shall deal with any claim which may be brought by third parties against FAO or its staff, or against any person performing services on behalf of FAO, and shall hold them harmless in respect of any claim or liability arising in connection with the activities, unless the government and FAO should agree that the claim or liability arises from gross negligence or willful misconduct on the part of the individuals mentioned above.

Activities funded by FAO are subject to FAO's Environmental and Social Standards. Should a stakeholder experience grievances resulting directly or indirectly from the implementation of the activities funded by FAO, they should get in contact with the closest responsible FAO office. If good faith attempts to resolve a concern or grievance with the FAO's office were unsuccessful, or if a complainant has demonstrated a good reason for not approaching the project management (e.g., reasonable fears about their safety), a request for Compliance Review may be filed with the Office of the Inspector General of FAO by confidential hotline (online form & by phone) at fao.ethicspoint.com or by e-mail at Investigations-hotline@fao.org.

4. GOVERNMENT INPUTS

The MoA&FW, Gol and DAFE. GoO will contribute to the project by:

- designating a National Project Coordinator (NPC), who will ensure the smooth implementation and coordination of all project activities in a timely manner;
- setting up a project steering committee to participate in the planning of project activities and (to) validate the various methodologies, findings and project outputs;
- providing office space with communication facilities, utilities for the national project team within its premises as well as space for meetings/workshops upon availability;
- supporting workshops and training activities in coordination with the FAO Country Office;
- making available data and information relevant to the project implementation;
- strongly facilitating engagements and coordination between the project team and all stakeholders (public, private, civil society) under the framework of the project programme; and
- assigning dedicated national/state and local staff to support and participate in, as appropriate, the various project phases.

5. FAO CONTRIBUTION

Personnel services

Type/Titles	No. of days	Fee/Day	Budget (USD)
International Expert on Plant Genetic Resources/Seed Diversity	12	400	4 800
National Expert on participatory plant breeding	101	250	25 250
National Expert on community seed banks	101	250	25 250
National Expert on law and policy on seeds (& project manager)	130	250	32 500
FAO Technical Support Services			
Standard TSS:			
- LTO, RAP Agriculture Officer	8	586	4 688
Specific TSS:			
- LTO, RAP Agriculture Officer	5	586	2 930

Travel	No. of Days	DSA/ Day	Travel Costs	Budget (USD)
International Expert on plant genetic resources/seed diversity	3	400	1 500	2 700
FAO Technical Support Services - LTO, RAP Agriculture Officer	5	250	1 250	2 500
National Expert on participatory plant breeding				1 000
National Expert on community seed banks				1 000
National Expert on law and policy on seeds				1 000
Duty travel (FAO staff only)				1 000

Contracts or letters of agreements

Category	Short description	Budget (USD)
Letter of Agreement	LoA for survey of selected sites in Odisha to map location and uses of some model LR/FVs (including interviews with small farmers/seed conservors/local communities) and validation workshop <i>(Activities 1.2 + 1.3)</i>	40 000
Service contract	Contract for the documentation (AV) process on the ground and communication needs <i>(Activities 6.1 + 6.3)</i>	15 000

Training

Category	Title and duration of event	Budget (USD)
In-country training (workshops and seminars)	Inception workshop in the capital city of Odisha <i>Project inception workshop (Bhubaneswar, Odisha) - Activity 1.1</i>	2 500
	FPIC workshop Free, Prior and Informed Consent (FPIC) meetings with local communities in tribal areas	2 000
	Round Table Discussion (RTD) on relevant laws and policies around LR/FVs (with focus on both constraints and opportunities) <i>[Ref. Activity 4.3]</i> <i>(1 day*25 participants),</i> <i>Venue Cost (1 day*USD 1 000),</i> <i>Lunch+Tea+Snacks (25 Nos*USD 35),</i> <i>Accommodation for Outstation participants (15 Nos.*USD 70),</i>	5 000

Category	Title and duration of event	Budget (USD)
	<p><i>Travel of outstation participants by air+local travel (15*USD 100),</i></p> <p><i>Stationaries/materials, etc. (25 Nos *USD 23)</i></p>	
	<p>Round Table Discussion (RTD) on community seed banks (with focus on in situ conservation and establishment of national network)</p> <p><i>[Ref. Output 2, Activity 2.3]</i></p> <p><i>(1 day*25 participants),</i></p> <p><i>Venue Cost (1 day*USD 1 000),</i></p> <p><i>Lunch+Tea+Snacks (25 Nos*USD 35),</i></p> <p><i>Accommodation for Outstation participants (15 Nos.*USD 70),</i></p> <p><i>Travel of outstation participants by air+local travel (15*USD 100),</i></p> <p><i>Stationaries/materials, etc. (25 Nos *USD 23)</i></p>	5 000
	<p>Final workshop to disseminate learnings from the project with relevant actors in the seed value chain for LR/FVs from other rainfed states</p> <p><i>[Ref. Activity 5.3]</i></p> <p><i>(2 day*50 participants),</i></p> <p><i>Venue Cost (2 day *USD 1 000),</i></p> <p><i>Lunch+Tea+Snacks (50 Nos*USD 35),</i></p> <p><i>Accommodation for Outstation participants (15 Nos.*USD 70),</i></p> <p><i>Travel of outstation participants by air+local travel (15*USD 100),</i></p> <p><i>Stationaries/materials, etc. (50 Nos *USD 23)</i></p>	7 450

Materials, supplies and equipment

Category	Type of materials/equipment and cost estimates	Budget (USD)
Expendable equipment	<p>Printing of</p> <ul style="list-style-type: none"> • Training modules (100 copies) • Posters (200 copies) • Handouts (200 copies) • Leaflets (200 copies) <p><i>(Activity 6.2)</i></p>	5 000

Other Costs	Budget (USD)
Standard Reporting Costs	2 900
General Operating Costs directly attributable to implementation	9 598
Servicing Costs	13 934
Total Budget (USD)	213 000

6. SUSTAINABILITY OF RESULTS

The Government of India through its MoA&FW is committed to building climate resilience in the seed sector. The GoI has also been conferring the country’s highest civilian awards to seed conservors and women knowledge-holders in the informal seed sector.

The Government of Odisha already has initiated the *Standard Operating Procedures (SOP) for Seed System for Landraces* under the Odisha Millets Mission (OMM) and approved the same in April 2022 and notified a state-level ‘Landrace Varietal Release Committee (LVRC)’ in May 2023. It is committed to its full operationalisation; it has also budgeted funds for the piloting of the seed systems for LR/FVs vide the SOP issued on 2 April 2022.

The GoI’s National Rainfed Area Authority (NRAA) is interested to amplify the learnings from this experience in Odisha for use in other rainfed areas of the country. Central funding will be considered for this. NRAA was involved in the development of the original concept idea for this TCP.

Annex 1 – Work Plan

WORK PLAN TCP/IND/3905	Responsibility	Year 1				Year 2			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1: Model local varieties are made known									
Activity 1.1 Inception workshop	DAFE, GoO & FAO	X							
Activity 1.2 LoA for survey	FAO	X							
Activity 1.3 Survey and Validation workshop	LoA partner & DAFE	X	X						
Output 2: Framework of standards, protocols, and principles for both in situ conservation and the documentation of LR/FVs as per VCU for local communities is developed									
Activity 2.1 Collation of existing materials	FAO		X	X					
Activity 2.2 Community consultations	LoA Partner & OMM			X					
Activity 2.3 RTD on community seed banks	GoO & FAO				X				
Output 3: End-to-end support for LR/FVs is piloted through a CMSS (in line with SOP) on selected location(s) in Odisha									
Activity 3.1 Community Seed Centres				X	X				
Activity 3.2 Maintenance breeding				X	X	X			
Activity 3.3 Seed standards and certification guidelines					X	X			
Activity 3.4 Certification Capacity building					X	X			
Activity 3.5 Digital open-source seed platform						X	X		
Output 4: Policy paper on the possibilities and constraints under the existing legal and policy framework for LR/FVs is prepared									
Activity 4.1 Baseline work	DAFP, DAFE, GoO OMM & FAO				X	X	X		
Activity 4.2 Paper writing	FAO + relevant state partners				X	X	X		
Activity 4.3 RTD on laws and policies	DAFP, DAFE, GoO OMM & FAO						X		
Output 5: National experience-sharing workshop to process the learnings of the Odisha pilot encourages other states to adopt/adapt									
Activity 5.1 Organizing committee established	GoO & FAO				X				
Activity 5.2 Preparations	GoO & FAO				X	X			

WORK PLAN TCP/IND/3905	Responsibility	Year 1				Year 2			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 5.3 National workshop	GoI, GoO & FAO							X	
Output 6: Set of Information, Education and Communication (IEC) materials developed and circulated for capacity building and advocacy									
Activity 6.1 List of IEC materials and documentation strategy agreed upon	OMM & FAO			X					
Activity 6.2 Materials prepared	OMM & FAO				X	X	X		
Activity 6.3 Communication strategy	GoO,FAO & service provider					X	X	X	X
Operational Activities									
Recruitment	FAO								
LoA	FAO								
Procurement	FAO								

Annex 2 - ES Risk Screening checklist

The proposed action is classified as: **Moderate**

SAFEGUARD 1 NATURAL RESOURCES MANAGEMENT	
<p>Could this project:</p> <ul style="list-style-type: none"> • result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or • include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water; or • reduce the adaptive capacity to climate change or increase GHG emissions significantly; or • result in any changes to existing <i>tenure rights</i>¹ (<i>formal and informal</i>²) of individuals, communities or others to land, fishery and forest resources? <p>¹Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests</p> <p>²Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be ‘legitimate tenure rights’.</p>	NO
SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS	
<p>Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?</p>	YES
SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE	
<p>Would this project:</p> <ul style="list-style-type: none"> • introduce crops and varieties previously not grown, and/or; • provide seeds/planting material for cultivation, and/or; • involve the importing or transfer of seeds and or planting material for cultivation or research and development; • supply or use modern biotechnologies or their products in crop production, and/or • establish or manage planted forests? 	NO
SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE	
<p>Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?</p>	NO
SAFEGUARD 5 PEST AND PESTICIDES MANAGEMENT	
<p>Could this project:</p> <ul style="list-style-type: none"> • result in the direct or indirect procurement, supply or use of <i>pesticides</i>¹: <ul style="list-style-type: none"> - on crops, livestock, aquaculture, forestry, household; or - as seed/crop treatment in field or storage; or - through input supply programmes including voucher schemes; or - for small demonstration and research purposes; or - for strategic stocks (locust) and emergencies; or - causing adverse effects to health and/or environment; or • result in an increased use of pesticides in the project area as a result of production intensification; or 	NO

<ul style="list-style-type: none"> • result in the management or disposal of pesticide waste and pesticide contaminated materials; or • result in violations of the Code of Conduct? <p>¹Pesticide means any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth.</p>	
SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT	
<p>Could this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?</p>	NO
SAFEGUARD 7 DECENT WORK	
<p>Could this project affect the working conditions or job prospect beneficiaries or others who may be impacted by it, or will the project directly or indirectly employ hired labour?</p>	NO
SAFEGUARD 8 GENDER EQUALITY	
<p>Could this project risk overlooking existing gender discrimination or inequalities in terms of men's and women's participation in decision making and/or their differential access to productive resources, services and markets?</p>	NO
SAFEGUARD 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE	
<p>Would this project:</p> <ul style="list-style-type: none"> • have <i>indigenous peoples</i>* living <i>outside the project area</i>¹ where activities will take place; or • have indigenous peoples living in the project area where activities will take place; or • adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (<i>physical</i>² and <i>non-physical or intangible</i>³) inside and/or outside the project area; or • be located in an area where cultural resources exist? <p>* FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).</p> <p>¹The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of physical distance. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question.</p> <p>²Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.</p> <p>³Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"</p>	YES

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
1	1 - SAFEGUARD 1 NATURAL RESOURCES MANAGEMENT				
1.1	1.1 - Could this project result in the degradation (biological or physical) of soils?	No	Low		
1.2	1.2 - Could this project undermine sustainable land management practices?	No	Low		
1.3	1.3 - Would this project develop an irrigation scheme that is more than 20 hectares or withdraws more than 1000 m3/day of water?	No	Low		
1.4	1.4 - Would this project develop an irrigation scheme that is more than 100 hectares or withdraws more than 5000 m3/day of water?	No	Low		
1.5	1.5 - Would this project aim at improving an irrigation scheme (without expansion)?	No	Low		
1.6	1.6 - Could this project affect the quality of water either by the release of pollutants or by its use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other)?	No	Low		
1.7	1.7 - Would this project include the usage of wastewater?	No	Low		
1.8	1.8 - Would this project involve the construction or financing of a dam that is more than 15 m. in height?	No	Low		
1.9	1.9 - Would this project involve the construction or financing of a dam that is more than 5 m. in height?	No	Low		
1.10	1.10 - Could this project result in any changes to existing <i>tenure rights</i> ¹ (<i>formal and informal</i> ²) of individuals, communities or others to land, fishery and forest resources? ¹ Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests ² Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be ‘legitimate tenure rights’;	No	Low		
1.10.1	1.10.1 - Could this project result in a negative change to existing legitimate tenure rights?	No	Low		
1.11	1.11 - Could this project result in a reduction of the adaptive capacity to climate change for any stakeholders in the project area?	No	Low		

1.12	1.12 - Could this project result in a reduction of resilience against extreme weather events?	No	Low		
1.13	1.13 - Could this project result in a net increase of GHG emissions beyond those expected from increased production?	No	Low		
1.13.1	1.13.1 - Is the expected increase below the level specified by FAO guidance or national policy/law (whichever is more stringent)?	No	Low		
1.13.2	1.13.2 - Is the expected increase above the level specified by FAO guidance or national policy/law (whichever is more stringent)?	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
2	2 - SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS				
2.1	2.1 - Would this project be implemented within a legally designated protected area or its buffer zone?	No	Low		
2.2	2.2 - Could this project change a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna?	No	Low		
2.3	2.3 - Could this project increase the current impact on the surrounding environment for example by using more water, chemicals or machinery than previously?	No	Low		
2.4	2.4 - Would this project use an alien species which has exhibited an <i>invasive</i> * behavior in the country or in other parts of the world or a species with unknown behavior? *An invasive alien species is defined by the Convention on Biological Diversity as "an alien species whose introduction and/or spread threaten biological diversity" (see https://www.cbd.int/invasive/terms.shtml).	No	Low		
2.5	2.5 - Would this project involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by indigenous, local communities and/or farmers?	Yes	Moderate	<p>Ensure that the following issues are considered and appropriate action is taken. The issues identified and the action taken to address them must be included in the project document and reported on in progress reports.</p> <p>For plant genetic resources for food and agriculture (PGRFA) falling under the Multilateral System of Access and Benefit-sharing (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), ensure that Standard Material Transfer Agreement (SMTA) has been signed and comply with SMTA provisions.</p> <p>For genetic resources, other than PGRFA falling under the MLS of the Treaty:</p> <ol style="list-style-type: none"> 1. Ensure that, subject to domestic access and benefit-sharing legislation or other regulatory requirements, prior informed consent has been granted by the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity, unless otherwise determined by that country; and 2. Ensure that benefits arising from the utilization of the genetic resources as well as subsequent applications and commercialization are shared in a fair and equitable way with the country providing 	<p>Project activity - The associated traditional knowledge of local seed keepers will be the basis of community-managed seed systems to be supported under the TCP. Local communities will access traditional varieties co-developed by other local seed knowledge-holders for their CMSS, hence due attention to the access and benefit-sharing guidelines of the country will have to be paid.</p> <p>Potential Risk - The ABS guidelines (2014) issued</p>

			<p>the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity; and</p> <p>3. Ensure that, in accordance with domestic law, prior informed consent or approval and involvements of indigenous and local communities is obtained for access to genetic resources where the indigenous and local communities have the established right to grant such resources; and</p> <p>4. Ensure that, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over the genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms.</p> <p>For traditional knowledge associated with genetic resources that is held by indigenous and local communities:</p> <p>1. Ensure, in accordance with applicable domestic law, that knowledge is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established; and</p> <p>2. Ensure that, in accordance with domestic law, benefits arising from the utilization of traditional knowledge associated with genetic resources are shared, upon mutually agreed terms, in a fair and equitable way with indigenous and local communities holding such knowledge. Ensure that the project is aligned with the Elements to Facilitate Domestic Implementation of Access and Benefit Sharing for Different Subsectors of Genetic Resources for Food and Agriculture when it is the case</p>	<p>under the national Biological Diversity Act, 2002 and any due procedures for ABS laid done by the State Biodiversity Board will have to be complied with. The legally due benefit sharing should result to the local communities who are the source of the seeds and knowledge.</p> <p>Possible Impact - Non-compliance with the ABS mechanism could lead to a situation where local communities/se ed knowledge-holders may either not be duly acknowledged, or no benefits accrue to them or their Prior Informed Consent is not taken.</p> <p>Proposed Mitigation measures - Mitigation can be ensured with compliance of ABS procedures. The issues identified and the mitigation actions to be taken to address them will be included in the TCP project document.</p>
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Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
3	3 - SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE				
3.1	3.1 - Would this project introduce crops and varieties previously not grown?	No	Low		
3.2	3.2 - Would this project provide seeds/planting material for cultivation?	No	Low		
3.2.1	3.2.1 - Would this project involve the importing or transfer of seeds and/or planting materials for cultivation?	No	Low		
3.2.2	3.2.2 - Would this project involve the importing or transfer of seeds and/or planting materials for research and development?	No	Low		
3.3	3.3 - Would this project supply or use modern plant biotechnologies and their products?	No	Low		
3.4	3.4 - Would this project establish or manage planted forests?	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
4	4 - SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE				
4.1	4.1 - Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system?	No	Low		
4.1.1	4.1.1 - Would this project foresee an increase in production by at least 30% (due to the introduction) relative to currently available locally adapted breeds and can monitor production performance?	No	Low		
4.1.2	4.1.2 - Would this project introduce genetically altered organisms, e.g. through selective breeding, chromosome set manipulation, hybridization, genome editing or gene transfer and/or introduce or use experimental genetic technologies, e.g. genetic engineering and gene transfer, or the products of those technologies?	No	Low		
4.2	4.2 - Would this project introduce a non-native or non-locally adapted species or breed for the first time into a country or production system?	No	Low		
4.3	4.3 - Would this project introduce a non-native or non-locally adapted species or breed, independent whether it already exists in the country?	No	Low		
4.4	4.4 - Would this project ensure there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)?	No	Low		
4.5	4.5 - Would this project collect living material from the wild, e.g. for breeding, or juveniles and eggs for on-growing?	No	Low		
4.6	4.6 - Could this project modify the surrounding habitat or production system used by existing genetic resources?	No	Low		
4.7	4.7 - Would this project be located in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland?	No	Low		
4.8	4.8 - Could this project block or create migration routes for aquatic species?	No	Low		
4.9	4.9 - Could this project change the water quality and quantity in the project area or areas connected to it?	No	Low		

4.10	4.10 - Could this project cause major habitat / production system changes that promote new or unknown chances for geneflow, e.g. connecting geographically distinct ecosystems or water bodies; or would it disrupt habitats or migration routes and the genetic structure of valuable or locally adapted species/stocks/breeds?	No	Low		
4.11	4.11 - Would this project involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)?	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
5	5 - SAFEGUARD 5 PEST AND PESTICIDES MANAGEMENT				
5.1	5.1 - Would this project procure, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	No	Low		
5.2	5.2 - Would this project provide seeds or other materials treated with pesticides (in the field and/or in storage)?	No	Low		
5.3	5.3 - Would this project provide inputs to farmers directly or through voucher schemes?	No	Low		
5.4	5.4 - Could this project lead to increased use of pesticides through intensification or expansion of production?	No	Low		
5.5	5.5 - Would this project manage or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials?	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
6	6 - SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT				
6.1	6.1 - Would this <i>removal</i> be voluntary? Temporary or permanent removal of people from their homes or means of production/livelihood or restrict their access to their means of livelihoods	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
7	7 - SAFEGUARD 7 DECENT WORK				
7.1	7.1 - Could this project displace jobs? (e.g. because of sectoral restructuring or occupational shifts)	No	Low		
7.2	7.2 - Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels "working poverty"?	No	Low		
7.3	7.3 - Would this project operate in situations where youth work mostly as unpaid contributing family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas?	No	Low		
7.4	7.4 - Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications, lower productivity and wages, less representation and voice in producers' and workers' organizations, more precarious contracts and higher informality rates, etc.)	No	Low		
7.5	7.5 - Would this project operate in areas or value chains with presence of labour migrants or that could potentially attract labour migrants?	No	Low		
7.6	7.6 - Would this project directly employ workers?	No	Low		
7.7	7.7 - Would this project involve sub-contracting?	No	Low		
7.8	7.8 - Would this project operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant <i>occupational and safety risks</i> ? *Major OSH risks in agriculture include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects.	No	Low		
7.9	7.9 - Would this project provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general?	No	Low		
7.10	7.10 - Would this project foresee that children below the nationally-defined minimum employment age (usually 14 or 15 years old) will be involved in project-supported activities?	No	Low		

7.11	7.11 - Would this project foresee that children above the nationally-defined minimum employment age (usually 14 or 15 years old), but under the age of 18 will be involved in project-supported activities?	No	Low		
7.12	7.12 - Would this project operate in a value chain where there have been reports of child labour?	No	Low		
7.13	<p>7.13 - Would this project operate in a value chain or sector where there have been reports of <i>forced labour</i>?</p> <p>*Forced labour is employed, consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. It includes men, women and children in situations of debt bondage, suffering slavery-like conditions or who have been trafficked. "In many countries, agricultural work is largely informal, and legal protection of workers is weak. In South Asia, there is still evidence of bonded labour in agriculture, resulting in labour arrangements where landless workers are trapped into exploitative and coercive working conditions in exchange for a loan. The low wages associated with high interest rates make it quite difficult for whole families to escape this vicious circle. In Africa, the traditional forms of &quot;vestiges of slavery&quot; are still prevalent in some countries, leading to situations where whole families (adults and children, men and women) are forced to work the fields of landowners in exchange for food and housing. In Latin America, the case of workers recruited in poor areas and sent to work on plantations or in logging camps has been widely documented by national inspection services and other actors." (ILO, Profits and poverty: the economics of forced labour / International Labour Office. - Geneva: ILO, 2014</p>	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
8	8 - SAFEGUARD 8 GENDER EQUALITY				
8.1	8.1 - Could this project risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls?	No	Low		
8.2	8.2 - Could this project not target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision-making?	No	Low		

Environmental and Social Safeguard question	Risk Identified	Answer	Risk category	Reference Guidance	Additional Description (if any)
9	9 - SAFEGUARD 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE				
9.1	<p>9.1 - Are there <i>indigenous peoples</i>* living <i>outside the project area</i>** where activities will take place?</p> <p>*FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).</p> <p>**The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples; irrespective of <i>physical distance</i>. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question.</p>	No	Low		
9.1.1	9.1.1 - Do the project activities influence the Indigenous Peoples living outside the project area?	No	Low		
9.2	9.2 - Are there indigenous peoples living in the project area where activities will take place?	Yes	Moderate	<p>A Free Prior and Informed Consent process is required.</p> <p>If the project is for indigenous peoples, an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process. Please contact the ESM/OPCA unit for further guidance.</p> <p>In cases where the project is for both, indigenous and non-indigenous peoples, an Indigenous Peoples' Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact. Please contact ESM/OPCA unit for further guidance.</p>	A Free Prior and Informed Consent process will be conducted . Environmental and Social Management Plan (ESMP) will be developed and necessary budget allocation shall be made available.
9.3	9.3 - Would this project adversely or seriously affect on indigenous peoples; rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (<i>physical</i> * and	No	Low		

	<p><i>non-physical or intangible</i>**) inside and/or outside the project area?</p> <p>*Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.</p> <p>**Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"</p>				
9.4	9.4 - Would this project be located in an area where cultural resources exist?	No	Low		

Additional Information

	Answer	Remarks
ADDITIONAL INFORMATION		
Is there any other potential environmental and/or social risk of this project that has not been captured in the screening checklist?	No	
Is the proposed project considered potentially controversial?	No	

Annex 3 - Environmental and Social Management Plan Matrix

Activities (<i>Specify locations</i>)	Potential environmental and social risks and impacts (<i>Briefly describe the potential ES risks identified in line with the FESM</i>)	Mitigation Measures (<i>Briefly describe the mitigation measures for the identified risk. Indicate whether any specific instruments have been prepared such as Biodiversity Management Plan, Gender Action Plan, LMP, etc. and provide the reference – link/document etc.</i>)	Implementation Arrangements ^[1] (<i>Responsible parties for implementation of the mitigation measures, and timeline for activities</i>)	Monitoring Arrangements ^[2] (<i>Responsibilities, and timeline / frequency of the monitoring activities</i>)	Timeline (Proposed TCP from December 2023 to November 2025.)	Estimated costs to implement the mitigation measures
<p>The proposed locations are different sites in the state of Odisha, India. The exact locales will be determined in consultation with the key stakeholders at the commencement of the TCP.</p> <p>The PTF will keep in mind the definition of “stakeholder” as in the ESM Guidelines, 2015 which refers to project affected communities and national and local authorities, and where appropriate, other stakeholders.</p>	<p>This project will involve access to plant genetic resources (PGR) for their utilization and/or access to traditional knowledge associated with genetic resources that is held by indigenous, local communities and/or farmers. Issues of biodiversity equity and due benefit sharing arise, if and when the PGR are accessed and used.</p>	<p>The Government of India has through the National Biodiversity Authority (NBA) along with the Ministry of Environment, Forest and Climate Change (MoEF&CC) notified Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations (hereinafter referred to as the ABS Regulations), 2014 under the national-level Biological Diversity (BD) Act, 2002: http://nbaindia.org/uploaded/pdf/Gazette_Notification_of_ABS_Guidelines.pdf</p> <p>In August 2023, the MoEF&CC has also issued amendments to the BD Act: http://nbaindia.org/uploaded/pdf/BDAct_2023.pdf</p>	<p>The project team is committed to ensure that exchange of genetic resources conforms to access and benefit sharing (ABS) measures in force in Odisha and India.</p> <p>FAO, in adhering to best practices, will ensure that its actions conform with the ABS measures applicable to the utilization of genetic resources utilized. In addition, where material covered by a material transfer agreement (MTA) is utilized, FAO will ensure that the utilization conforms to the terms and conditions set out in relevant material transfer agreements and that benefits are shared accordingly, including with indigenous and local communities.</p> <p>In line with the objectives of ESS2, the TCP activities also aim to increase the genetic base used for food and agriculture production in rainfed areas such as those in Odisha.</p>	<p>LTO is aware of the same and will support the CO and project team on this.</p> <p>The TORs of the relevant consultants onboarded for this project will include attention to these tasks.</p>	<p>As and if/when the seed, planting or breeding materials of landraces or traditional varieties maintained by local communities are accessed from them in the state during the pendency of the TCP.</p>	<p>The days allocated to two personnel in the budget, namely,</p> <p>National Expert on Community Seed Banks</p> <p>and</p> <p>National Expert on law and policy on seeds,</p> <p>will cover for the work needed on this front.</p>

		<p>The project team will assess the implications of the amendments on any ABS-related issues, prior to commencement of the project activities.</p> <p>The state-level BD Rules and any ABS-related regulations of the Odisha Biodiversity Board (OBB) https://www.odishabiodiversityboard.in/ will also be consulted.</p>				
<p>It is likely that the project activities will also cover tribal areas in Odisha.</p> <p>In this TCP, tribal women are recognised as knowledge-holders and are also anticipated to play an important role.</p>	<p>There are local tribal peoples living in the project area where activities will take place. They will need to be consulted. If not done it violates their right to self-determination.</p>	<p>The need for FPIC has been duly acknowledged and included in the ProDoc.</p> <p>FAOIN guarantees the application of the principle of Free, Prior and Informed Consent (FPIC) of tribal communities affected by the project.</p>	<p>An FPIC meeting is built into the project design.</p> <p>The said FPIC process will be conducted in close consultation and involvement of the tribal people. The appropriate communication strategies will be developed for the same. The FPIC will be conducted prior to the start of project activities.</p>	<p>LTO will monitor this, as will the Project Steering Committee (PSC) that will be set up at the start of the TCP.</p>	<p>FPIC will be undertaken in Year One itself; representation of tribal people in the local implementation group and/or PSC will also be encouraged.</p>	<p>USD 2,000 has specifically budgeted in the TCP for an 'FPIC workshop' to make possible meetings with the local communities in tribal areas.</p>