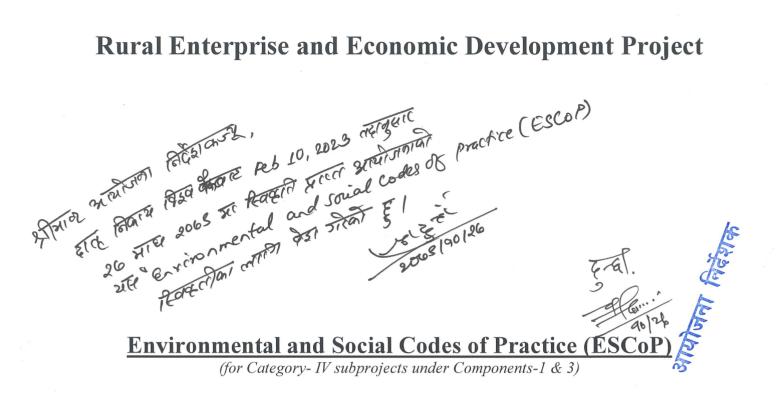
## Rural Enterprise and Economic Development Project





**Government of Nepal** Ministry of Agriculture and Livestock Development

Rural Enterprise and Economic Development Project

Office of Project Director Hariharbhawan, Lalitpur

February, 2023

#### **Background:**

The Rural Enterprise and Economic Development (REED) Project of the Ministry of Agriculture and Livestock Development (MoALD) aims to develop rural-based enterprises by, among others, (i) supporting formation of productive partnerships (PP) between smallholder farmers and business players in agricultural commodities value chain and extending grants to finance start-up businesses; (ii) construction of value chain related infrastructures and semi-public infrastructures; and (iii) establishments of Regional Market Centers to promote market and export of agricultural commodities.

In this REED Project, Category-I subprojects will not be supported by the Project. Those Category-II subprojects (having substantial adverse impacts) that are eligible for project support may require a Brief Environmental Study (BES) or Initial Environmental Examination (IEE) or EIA (Environmental Impact Assessment)/Environmental and Social Impact Assessment (ESIA) report including Environment and Social Management plan (ESMP) which will fully describe appropriate preventive and curative mitigation measures and their implementation procedures. Also, Category-III sub projects (having moderate risk of impacts) require preparation of ESMPs. To address its site-specific and reversible impacts, proper mitigation measures will be applied. In some cases, it may require a BES. Similarly, for Category-IV subprojects (having minimal or no adverse impacts) further full-blown environmental and social assessment beyond initial screening is not required. The screening report for Category-IV subprojects will recommend mitigations measures for the minor issues/impacts identified. This may be in the form of a good practice code/ Environmental and Social Codes of Practice (ESCoP)\* for activity implementation. So, this ESCoP is developed for Category-IV sub-project under components-1 & 3.

#### **Environmental and Social Codes of Practice (ESCoP):**

This document describes the Environmental and Social Code of Practice (ESCoP) for REED Project outlining the procedures that the Project will follow to address the E&S risks and impacts that may arise from the construction and/or renovation of small- scale civil works under components 1 and 3. The ESCOP has been developed in alignment with international good practice, including the Environmental and Social Management Framework (ESMF) developed for the Project and the World Bank Environmental and Social Standards, and also in compliance with the national E&S requirements as well as internal policies and procedures of REED Project.

The ESCOP discusses generic measures that can be taken to avoid, minimize, restore, or offset environmental and social impacts that might arise from implementing the proposed subprojects. It

activity and may be subject to further improvement.

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<sup>\*</sup> Note:

i. This ESCoP is generic one, adding of information or adjustment can be made when needed. of elig ii. The specific and detailed measures/ code of practices that would mitigate potential impacts of each type of eligible

contains specific, detailed and tangible measures that would mitigate the potential impacts of each type of eligible subproject activity under the project and provide technically specified solutions illustrating the general principles of environmentally sound and sustainable planning, design and construction. This ESCoP primarily focuses in prevention i.e., controlling potential hazards at all stages of project value chain, it is a safety management method. This will help to enhance positive impacts and to avoid or lessen adverse or negative risks and impacts at acceptable levels. Also, the codes provide guidance to the project planners in assessing the social and environmental impacts of the project.

These generic and non-site-specific guidelines should also be applied in conjunction with the standard technical standards for preparation of designs of civil works and during implementation. Similarly, this ESCoP will be a mandatory part of bidding and later construction contract documents so that the contractor complies with environmental and social covenants. Each sub project proposal will adopt a relevant section of this ESCoP. The ESCoP of each sub projects will be presented and discussed with related parties/stakeholders and disclosed prior to project appraisal. When additional environmental, public health, or safety concerns have been identified, the Economic Corridor Offices/Office of Project Director (ECOs/OPD) may require measures above and beyond the provisions of this code. So, ESCoP has to be considered as a 'live document' which, from time to time, may need updating/revision to retain 'requirements' that are relevant to the environmental and a social condition in the project area. Strict implementation of good practice codes adherence to GoN rules, regulations and the World Bank's Environmental and Social Standards (ESSs).

These codes of practice have been introduced in the REED Project in a way to allow easy adoption during proposal development and to simplify the implementation of E & S safeguards during implementation of subprojects of Productive Partnership (PP)'s business plan under component-1. The commonly use good practices are activities specific and applicable for agricultural farming, livestock/ veterinary and agro-enterprises production subprojects under component-1. The commodity producers, processors/manufacturers, traders etc. will have to adopt these practices to meet safety and quality requirements. They have to meet hygiene requirements to earn the confidence of buyers, as well as consumers. Similarly, these codes of practice will be adopted during construction/upgrading/rehabilitation of infrastructures under component-3.

#### **Objectives of ESCoP:**

The objectives of this ESCoP are:

To integrate environmental and social aspects while planning, study, survey, design, tendering, contract documentation, project execution and supervision, operation, maintenance, and upgrading/rehabilitation of small-scale civil works project which would guide ECOs/OPD and Contractor in implementing the environmental management THE PRINT OF THE PARTY OF THE P measures of proposed sub-project.



ii. To avoid environmental and social problems whenever possible or to manage and mitigate those problems if they cannot be avoided.

#### **Implementation of ESCoP:**

There are three implementation mechanisms for the ESCoP:

- i. Use of the ESCoP will be specified in the bidding documents through the terms of reference for the design of works. The relevant design directives stated in the ESCoP should also be incorporated in the terms of reference.
- ii. Use of the ESCoP will be specified in the specifications for the construction of physical works. The relevant suggested section stated in the ESCoP should also be incorporated in the specifications.
- iii. Approvals by the OPD/MOALD and World Bank are granted with the condition that works proceed under the provisions of the ESCoP.

#### Responsibilities:

The ESCoP should be followed by Clients, Consultants, Designers, Producer Organizations (POs), Buyers, and Contractors for the avoidance or mitigation of adverse environmental and social impacts that may arise. These responsible parties should adopt these practices throughout the project cycle and keep records and documentation of implementation of mitigation measures for periodic audits. The grant recipient organizations (e.g., Producer Organizations) and Contractor at the site level is the key entity responsible for the implementation and compliance of the ESCoP. They required to obey other national relevant legal regulations; Project's ESMF, E & S Code of Conduct (CoC) and World Bank's Environmental and Social Frameworks (ESF) along with this ESCoP. Also, they are primarily responsible to redress any grievances and to disseminate the status of implementation of ESCoP through public hearing, national and local prints, broadcast and social media, progress reports etc.

The ECOs and OPD, is responsible for regular monitoring ensuring that the ESCoP is effectively implemented. The OPD/ECOs will assign a qualified staff (particularly the E & S Safeguard Specialist/Focal Persons) to be responsible for compliance monitoring and supervision of the Contractor, include but not limited to the following: (i) ensure the adoption of this specific code into the subproject proposal; (ii) monitoring the contractor's compliance with the ESCoP, (iii) taking remedial actions in the event of non-compliance and/or adverse impacts occur, (iv) investigating complaints, evaluating and identifying corrective measures; (v) advising the POs, buyers and Contractor in case additional action is needed to improve surrounded environment; and (vi) monitoring Contractor's actions addressing complaints.

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#### 1. ESCoP for Design, Construction and Operation of Infrastructures

In this REED Project, construction of small-scale physical infrastructures (e.g., house trading centers, PP's Offices and post-harvest facilities, construction on farms, upgrading of facilities and infrastructure for agri-food processing, irrigation canals etc.) may happen under components-1 and 3. These construction activities may lead to adverse social and environmental impacts such as disturbance or nuisances to the building occupants and surrounding communities, triggering the need to develop the ESCoP. General construction impacts are addressed by standardized ESCoP, including erosion and sediment control, air and water quality management, noise and vibration, solid waste management, occupational health and safety and vehicular traffic management etc.

The following will be included in the ESCoP prepared for the construction activities of Category-IV subprojects under components- 1 and 3:

Particulars	Code of Practices
Subproject planning, design	<ul> <li>Suggestions of the community during the survey are to be incorporated, to the extent possible in the design of sub-projects. Such consultation meetings and engagements should be done in a transparent and inclusive manner in a language that is acceptable and understandable to the public.</li> <li>Develop necessary alternatives designs/programs for avoiding the impact on resources.</li> <li>All work items concerning environmental and social issues, including Occupational Health and Safety (OHS) must be included in the tender documents: as quantified work items in the Bill of Quantity (BoQ) and as clauses in the technical specifications.</li> <li>Detailed drawings if any for the environmental and social provisions as per the environmental and social codes of practice, as required, are to be included in the DPR.</li> <li>For civil works, identified environmental and social measures needs to integrated into the design of the works/activities wherever possible.</li> <li>Adoption of environmentally sound technologies (design of climate resilience and energy-efficient infrastructures, energy efficiency practices, incorporation of adaptive and mitigating measures against climate change, selection of less polluting technology/using renewable energy and resources, waste management, water resources, etc.) in civil construction.</li> <li>Strictly follow the National Building Code (NBC) and others norms and standards, including life and fire safety, accessible, inclusive, and gender friendly facilities, during design and construction of infrastructures.</li> </ul>



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Site selection	<ul> <li>Consultations with the local communities, including vulnerable and marginalized groups and indigenous people, as applicable, should be conducted during field survey for site selection.</li> <li>Select already disturbed areas for workers' accommodation, storage, workshop and the worksite wherever possible</li> <li>Where possible, avoid proximity to schools, health posts and households with vulnerable families.</li> <li>There should be an analysis of the options for locations/ sites of the subproject or subproject components considering E &amp; S risks and impacts, including loss and degradation of forests/ habitats/biodiversity, landslides &amp; soil erosion, floods, community H&amp;S, cultural and religious sites, etc.</li> <li>Sites of subproject should avoid using the forest areas or other habitat to the extent possible. Location of subprojects in critical natural habitat is not eligible (see exclusion list in Annex 1 of REED Project's ESMF).</li> <li>Follow or use Right of Way (RoW) to the extent possible in selecting linear infrastructure such as road, irrigation canal etc.</li> <li>Subproject or subproject components should be located adequately away from outbard sites.</li> </ul>
	from cultural sites.
Site clearance for the subproject specific activities (e.g., construction works, workers camp, materials and equipment yards etc.)	<ul> <li>Select already disturbed areas for workers' accommodation, storage, workshop and the worksite wherever possible</li> <li>Clearly mark "no-go" areas for workers (biodiversity sensitive areas, wetlands, grave sites or any sensitive environment or social site/area).</li> <li>Cutting of trees or destruction of vegetation outside the construction area should be prohibited under all circumstances.</li> <li>Activities pertaining to the clearance of land and relocation of utilities need to be initiated well in advance by contacting concerned departments to avoid any delays in hand over to Contractor.</li> <li>Obtain all of the necessary consents, permits, NOLs etc., prior to start of civil works in written.</li> <li>The locations for disposal of grubbing waste shall be finalized prior to the start of the works and debris should be managed following various precautions.</li> <li>The designated sites duly approved by ECO/OPD shall be cleared for temporary use during construction.</li> </ul>
	<ul> <li>Avoid areas with high biodiversity. Location of subprojects in critical natural habitat is not eligible (see exclusion list in Annex 1 of REED Project's ESMF)</li> <li>Clearly mark "no-go" areas for workers (biodiversity sensitive areas/protected areas).</li> </ul>



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## Protection Mark, flag, or fence areas where land cover or vegetation should be of vegetation, wildlife preserved or restored. and biodiversity Use minimum and efficient use of wood products for construction and arrange the provision of alternative energy to reduce using of firewood. No hunting, fishing, capture of wildlife or collection of plants. Control poaching activities and regulate movement of labour force and their dependents into the forest area. Do not locate construction routes, stockpiles, etc., where significant adverse impact on existing vegetation may occur. If any cutting down of trees for land clearance of the construction site, compensatory plantation should be done in the available area. Provide alternative source of energy (LPG, electricity and others) to labour force for cooking purposes to prevent the encroachment of forest Drinking water sources, whether public or private, should at all times be protected from air emissions, wastewater effluents, oil and hazardous materials, and wastes. Activities should not affect the availability of water for drinking and Water quality and hygienic purposes. The flow of natural drainage should not be obstructed or diverted to resources water another direction, which may lead to drying up of riverbeds or flooding management of settlements. No construction materials, solid wastes, toxic or hazardous materials should be poured or thrown into water bodies for dilution or disposal. .Temporary silt traps or sediment basins along the drainage leading to the water bodies will be installed. Store fuels, oils and chemicals safely and never dispose spent oils, lubricants, grease, cleaning materials, etc. on the ground and in water courses as it can contaminate soil and groundwater (including drinking water aquifer). The Contractor shall install temporary drainage works in areas required for sediment and erosion control and around storage areas for construction materials; divert runoff from undisturbed areas around the construction site; stockpile materials away from drainage lines; prevent all solid and liquid wastes entering waterways. Minimize the production of waste materials by 3Rs (Reduce, Recycle and Reuse) approach. Establish and clarify waste management procedures for all persons.

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Segregate hazardous construction waste from non-hazardous waste.

## Temporarily stored the waste on site in a designated area recommended by the Construction Supervision Engineer and approved by the ECO/OPD. Maintain all construction sites in a cleaner, tidy and safe condition and provide and maintain appropriate facilities as temporary storage of all Management of wastes before transportation and final disposal. waste and Require the use of gloves, boots, aprons, eyewear and other protective hazardous equipment for protection in handling highly hazardous materials. materials • Collect, store and transport all unutilized construction materials, heavy equipment and debris from construction site to appropriately designated/ controlled dump sites avoiding potential environmental pollution. Waste storage and transport containers shall be covered. Provide berm around a storage tank of hazardous chemicals, fuels, oils and others to confine leaks and spills. Collaborate with local authorities to transport and dispose waste in accordance with legal requirements in an environmentally acceptable manner. For all works, conduct hazard identification and risk assessment and prepare job safety analysis, based on which adequate training and PPEs are provided. For all workers provide orientation and job specific safety training, safety equipment and personal protective equipment (e.g., safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection etc. what and where applicable) and safe working environment and also ensure safety management and inspections etc. Appropriately equipped first-aid facilities should be easily accessible Worker's Health & throughout the place of work. Safety Contractor should provide portable drinking water facilities to the construction workers at all the construction sites and separate toilets facilities for male and female workers. Procedures should be put in place and train staff to deal with any emergency which could cause major injury to the health and safety of workers. An emergency preparedness and rescue plan will be in place to deal with any emergency situation arising at the workplace. The workers are required to follow the basic hygiene procedures at all times to prevent the transmission of COVID-19. Adequate precautions to prevent or minimize an outbreak of COVID-19 as per WB's ESF



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- construction/civil works projects (Please refer Annex-11 of Project's ESMF) should be applied.
- Document and report occupational accidents, diseases, and incidents.
   OHS logs should record any accidents, injuries, and near misses. For any accidents of material event, a root cause analysis will be performed and remedial action plans implemented.
- Make sure that employees and workers are aware of Project's Grievance Redress Mechanism (GRM) and process and can access it.
- Provide orientation to workers and contractor about Project's Labor Management Procedures (LMP).
- Provide training to workers on Code of Conduct (CoC) and include in civil works procedures. Also ensure all workers have read and agreed to the CoC and have signed it.
- No child labor or forced labor will be allowed.
- Non-discrimination regarding recruitment, wages and compensation.
- Use of alcohol and prohibited drugs by workers at the workplace.
- Conduct consultations with neighboring communities about the project and the schedule of works.
- Secure worksites with physical separation through buffer strips, fencing and walls, as appropriate.
- The contractor shall provide safety measures as safety and warning signage, fire extinguishers, first-aid kits, lighting system against traffic accidents etc. and other safety features in and around the construction and sensitive areas visible to the public informing them about the site works.
- Demarcate open trenches and hazardous areas with luminous temporary fencing and/or signage.
- Record visitors to the sites and do not allow children to play in and around construction areas etc.
- Control driving speed of vehicles particularly when passing through community or nearby school, health center or other sensitive areas.

  Provide defensive driving awareness to vehicle drivers.
- Fill in all earth borrow-pits once construction is completed to avoid standing water, water-borne diseases and possible drowning.
- Engaged female and local labours in construction works as per their skills to curb labor influx around communities near the construction sites. Also, prohibit child labor in all construction activities.
- Labours should respect local culture and customs.

**Community Health** and **Safety** 

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## Provide orientation and training to workers for maintaining social harmony, prohibition of ill social behaviors (alcohol, gambling etc.). Informed community peoples about SEA/SH and GBV risks through awareness programs and make sure that they are well known about Project's GRM is in place and can access it if such cases arise. Regular communication with the community in the vicinity will be conducted about the precautions and protocols to minimize the risk of COVID-19 transmission between workers on construction sites and within the community. Prefer already disturbed areas for workers' camp. Clearly mark "no-go" areas for workers (biodiversity sensitive areas, wetlands, grave sites or any sensitive environment /social/cultural site/area). **Camps** Locate the construction camps at areas which are acceptable from management environmental, cultural or social point of view. Avoid proximity to schools, health posts and households with vulnerable families. The Contractor should ensure proper collection and disposal of solid wastes within the construction camps. Avoid use of fuel wood using alternative fuels such as kerosene, and LPG for all cooking, heating and lighting purposes. Contractor shall provide the adequate facilities in the labour camp sites viz., housing for all workers; health care and first aid facility; safe and reliable water supply meeting the national standards and training sessions on best hygiene practices to be mandatorily participated by all workers etc. The Contractor shall identify quarry sites/borrow pits in consultation with the local peoples and local government (LGs). Use the areas designated by the LGs. Quarry sites/burrow area should be selected such that the quarrying activity should not result into slope instability, erosion, disruption of Quarry natural drainage, riverbank cutting, destruction of vegetation and Sites/Borrow Areas farmland and other physical resource. Development and Do not locate the quarry sites/borrow pits nearby identified **Operation and Soil** archaeological, religious or cultural sites. Management The construction materials (sand, stones etc.) should be extracted as per need only. Locate topsoil stockpiles in areas outside drainage lines and protect the toe of all stockpiles, where erosion is likely to occur.



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	<ul> <li>Restored the borrow areas after extraction of construction materials returning stockpiled topsoil to the borrow pit if is used for agriculture.</li> <li>All quarry sites/borrow pit sites should be stabilized immediately after completion of quarry activity.</li> </ul>
Runoff, Soil Erosion and Sediment Control	<ul> <li>Schedule construction activities during dry season as much as possible.</li> <li>Contour and minimize length and steepness of slopes if any.</li> <li>Use mulch, grasses or compacted soil and bio-engineering techniques to stabilize exposed areas.</li> <li>Cover with topsoil and re-vegetate (plant grass, fast-growing plants/trees) construction areas quickly once work is completed.</li> <li>Cut of spoil materials to be transported and disposed at sites agreeable to the Engineer for the project as well as some of the cut to spoil materials to be used for back-filling the foundation works etc.</li> <li>Construct diversion banks and channels to prevent runoff from flowing through the exposed areas.</li> </ul>
Air quality	<ul> <li>All vehicles, equipment and machinery used for construction to be regularly maintained.</li> <li>Minimize dust from exposed work sites by applying water on the ground, dry exposed surfaces, stockpiles of aggregates and roadways regularly during dry season.</li> <li>Avoid burn site clearance debris (trees, undergrowth) or construction waste materials.</li> <li>Reduce the operation hours of generators/machines /equipment /vehicles as much as possible. Limit speed of construction vehicles in access roads and also mounting speed control signals and ramps.</li> <li>Lower the hauling distance as possible.</li> </ul>
Noise and Vibration	<ul> <li>No or few nuisances to the community should be produced (e.g., use of less noisy equipment and no work during night hours). Noise levels should be maintained within the national permissible limits/ standards and limited to restricted times agreed to in the permit.</li> <li>Use noise-control methods such as fences, barriers, buffer zone etc.</li> <li>Minimize project transportation through community areas were possible.</li> <li>Discourage the use of horns.</li> <li>The workers operating equipment that generates noise should be given appropriate personal protective equipment.</li> </ul>



	Defense construction comments and tractions with community and traction
	Before construction, carry out consultations with community and traffic  police
	police.
T cc -	• Implement speed limits for all activity vehicles.
Traffic	• Ensure drivers are properly trained and licensed. Train all drivers
Management	on safety provisions. Emphasise safety precautions and observation of traffic rules.
	Routing, especially of heavy vehicles, needs to take into account
	sensitive sites such as schools, hospitals, and markets.
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	• Place warning signs/signages, safety barriers, lights within the vicinity
	of project sites to facilitate traffic movement, provide directions to
	various components of the works, and provide safety advice and
	warning.
	Passage ways for pedestrians and vehicles within and outside
	construction areas should be segregated and provide for easy, safe, and
	appropriate access.
	No disturbance of cultural or historic sites.
	• If any archaeological site, historical site, remains or objects are found
<b>Chance Finds</b>	during excavation or construction, chance find procedures shall proceed
	immediately. Please refer Annex 5 of REED Project's ESMF for Chance
	Finds Procedures.
Sexual	• Identify risks, key stakeholders and available service providers to
<b>Exploitation</b> and	address and manage any incidences of SEA/SH.
Abuse/Sexual	Adopt, and implement measures to manage risks of SEA/SH through the
Harassment	implementation of Project's SEA/SH prevention and risk mitigation
(SEA/SH) and	plan.
other Gender	• Prepare Code of Conduct (CoC) as part of the bid document for laborers,
Based Violence	and contractors, conduct orientations on CoC to workers and require all
(GBV) risks	workers to sign the CoC.
	Informed employees about SEA/SH and GBV risks and make sure that
	they are aware of Project's GRM and can access it in case of SEA/SH
	and GBV incidents occurs.
,	• Establishment of an accessible multi-tier Grievance Redress
~	Mechanisms (GRM) as envisaged by the Stakeholder Engagement Plan
	(SEP) throughout the project lifecycle. Provide orientation and training
Grievance Redress	to concerned person to manage the GRM.
Mechanism (GRM)	Multiple channels through which complaints can be registered in a safe
	and confidential manner should be established.
	A separate channel and protocols for reporting and addressing
	allegations of SEA/SH is identified and integrated into the Project's
	SEA/SH Grievance Mechanism (SEA/SH GM).
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• Maintain open communications with the local government and
concerned communities.
• Sensitize the people before the commencement of sub-projects on their
roles, better care of local environment, contract specifications,
mechanisms for addressing grievances and to enhance transfer of
technology to local people.
• Conduct periodic public consultations/stakeholder engagement
throughout the project cycle.
• Project Information boards shall be erected at all construction sites
providing information about the project.
• Ensure that all employees and workers, including contract workers
have agreement that details their terms of employment, working
conditions, compensation, benefits, and over time.
• Follow the minimum wage and terms of employment as required by
the labour laws of Nepal.
• Provision for collective bargaining for employees and workers to
collectively agree on working conditions and terms of employment.

## 2. ESCoP for Crops Farming and Processing Activities

Particulars	Code of Practices
Planning and Design of Subprojects	<ul> <li>Conduct a preliminary local assessment about resources (e.g., water, timbers, construction materials etc.), their availability and quality; existence of any social conflicts on resource use (e.g., up/down stream water use, forest products etc.); potential climate-related hazards in the watershed; sensitivity of ecosystems (e.g., presence of terrestrial fauna and avifauna, existing major threats) and potential impacts of the subproject.</li> <li>Exclude the subprojects mentioned in negative (exclusion) list of subproject activities mentioned in Project's Startup Grant Operating Manual.</li> <li>Where possible, and feasible, climate-smart and environment friendly options should be chosen, including climate smart agriculture practices and improved agronomics, and energy efficient practices/infrastructure etc.</li> <li>For agricultural water conservation and reallocation, design and select appropriate water-saving technologies and cost-efficient measures which reduce water withdrawals, water applied, and water consumption.</li> </ul>



water consumption.

	<ul> <li>Design and adopt the policy of open membership in the process to ensure the inclusion of women, marginalized people, indigenous people, and youth in the subprojects/agribusiness enterprises.</li> <li>Design the programs to disseminate project information to affected parties (e.g., local authority, enterprises and affected households etc.) through community meetings before starting subprojects.</li> </ul>
Resources use	<ul> <li>The production plan shall comply with country regulations for protected plant/animal species and also to preserve native plant/ animal species, including native vegetation areas on or near the farmland and bank of waterways.</li> <li>Forests area within the Area of Influence (AoI) of the crops farming and processing subprojects shall be protected from agricultural encroachments, illegal logging and forest product harvesting and hunting.</li> <li>In the farm management activities take into account the natural characteristics (e.g., hill or slope, protected forest/a reserved forest or very close to the water sources) of the farm sites as there is a risk of encroachment and contamination to these environmentally sensitive areas.</li> </ul>
Establishment of resource centers and nurseries	<ul> <li>Provide complete information to stakeholders on technology and market information; availability, quality and quantities of seed materials to increase productivity.</li> <li>Provide quality and quantities of improved seeds and planting materials to the farmers.</li> <li>Ensure that the seeds and planting materials can be legally used in the country.</li> <li>Conduct capacity enhancement training to the farmers for operation of resource centers of forage and saplings.</li> </ul>
Agricultural	<ul> <li>Seed:</li> <li>Prohibit the introduction of non-native or non-locally adapted and invasive 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.</li> <li>Use improved seeds and saplings and avoid undermining local seed and ensure that the seeds and planting materials are free from pests and diseases and are from locally adapted crops and varieties that are accepted by farmers and consumers.</li> </ul>
Inputs (seed, fertilizers and pesticides,	Irrigation Water Management:

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### irrigation, farm machinery, energy etc.)

- The water available for irrigation/fertigation shall be free from harmful contaminants. Where water testing is required to assess the risk of contamination, regular tests shall be conducted.
- Construct farm level micro irrigation schemes (e.g., drip/sprinkles for vegetables, fruits etc.) with proper outlet drain from the field to prevent overflow and seepage water disturbing neighboring fields and environment down the slope.
- Strictly prohibit the uncontrolled abstraction of water for irrigation without due consideration of the attendant environmental and social impacts and to maintain the minimum environmental flow to guarantee the essential ecological, socio-economic and hydrological functions.
- Support to water users' groups so that they can better organize water management and maintenance of catchments to ensure irrigation sustainability.

#### Application of fertilizers and soil additives:

- Do not use human sewage as the fertilizers.
- Consider local low-cost alternatives to chemical fertilizers and pesticides such as biofertilizers to improve soil fertility.
- Capacitate farmers to produce bio-fertilizers for replication & knowledge sharing with others farmer and society.
- Minimize the risk of contamination of organic fertilizers and keep the record on organic fertilizers.
- Application of fertilizers and soil additives should be selected and based upon soil analysis and/or recommendations of technically competent personnel/authorities.
- Fertilizers store must be covered, clean, dry and no risk of contamination of water source and should be stored separately from pesticides, fresh produce and nursery stock.

#### **Nutrient management:**

- Adopt Integrated Nutrient Management (INM) practices to increase crop productivity and preserve soil fertility. Time the application of crop nutrients to maximize uptake and minimize nutrient runoff or volatilization.
- Training and demonstration on integrated nutrient management practices and cover crop technology (green manure) should be provided to the participating farmers.

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- Ensure that manure is applied to agricultural land only during periods that are appropriate for its use as plant nutrient (generally just before the start of the growing season).
- Where possible, plan a crop rotation program to incorporate nitrogen-fixing legume crop plants and cover crops in the cropping cycle.

#### **Pesticides Use:**

- To reduce the environmental risks to acceptable levels, focus on careful selection of the type of pesticides and management of their use (timing, dose, mode of application, etc.).
- Encourage and train the framers to use bio-pesticides.
- The pesticides selected and applied should be specific for the target pest and disease.
- Do not used the pesticides beyond the prescribed limit.
- Pesticides, if needed to use, purchase registered pesticides only form authorized dealers permitted under the country's regulations and WHO recommended classification of pesticides by hazards.
- Create awareness on pesticide aspects such as safe usage, handling and disposal of pesticides.
- Pesticides shall be stored in the original container with a legible label and according to label directions.
- Withholding period between chemical application and harvest should be maintained as per the pre harvest interval mentioned on the label.
- Preference must always be given to sustainable pest management approaches such as use of ecological pest management and mechanical/cultural/physical or biological pest control tools in favors of systematic chemicals & preventive measures and monitoring.
- Do not use pesticides and chemical fertilizers in the farm/garden/field where irrigation is going to be applied.
- Proper safety equipment like mask, gloves, eye protection, etc. will be used during use of pesticides.
- A material safety data sheet of the pesticides will be prepared and appropriate training and safety measures adopted.

#### Farm mechanization:

• Use farm machineries (e.g., tractors, mini power trillers) and small farm equipments (e.g., such as water metering, on-farm water monitoring,

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- pumping, or irrigation maintenance equipment; on-farm water management equipment, such as drip irrigation, sprinklers etc.). For sustainability, trained the farmers in operation and maintenance and safety aspects of the machineries and equipment.
- Ensure proper and routine maintenance of machineries and vehicles, with provision to repair in authorized places with proper disposal of fluids and parts.

#### **Energy Use:**

- Promoting use of renewable energy systems for sustainable agriculture, e.g., solar photovoltaic water pumps and electricity, small-scale hydro, biofuels, greenhouse technologies, solar dryers for post-harvest processing.
- Machine and equipment shall be maintained in good condition to ensure the efficiency of operation and to save energy.
- The use of electricity and fuel should be reviewed to ensure that efficient operation practices are implemented.
- Provide proper electrical coverings and safety measures to prevent electrical hazards.

## **Improved** Agricultural **Practices and** technology for productivity enhancement

- Adopt improved practices such as water management practices; agricultural practices (e.g., application of adequate amounts of fertilizer; cultivation with improved seeds; use of crop residues or plastic membrane coverings for soil moisture preservation etc.); sustainable land management practices and climate-resilient practices (e.g., adoption of climate mitigation measures or climate-smart agriculture practices etc.).
- Adopt improved technology for production and productivity enhancement by introduction of flood and drought resilient technologies (e.g., climate resilient high yield varieties); conservation agriculture (e.g., maintain the soil organic matter, crop residue and cover crops to minimize erosion loss); modern cultivation and agriculture diversification techniques
- Provide in-depth trainings on safety aspects of using modernized machineries and equipment to prevent any mis-happenings.
- Practice Integrated Disease Management (use resistant crop varieties, biological control agents, good farm hygiene practices of crop rotation, remove diseased plant parts, etc.)
- Promote conditions for natural predators to control pests and protect g., bi natural enemies of pests by providing a favorable habitat (e.g., bushes



#### **Farm** Disease and Pest Management

- for nesting sites and other native vegetation) that can house pest predators.
- Adopt options for prevention and/or suppression of harmful organisms such as, crop rotation/intercropping; use of suitable cultivation techniques (e.g., conservation tillage, pruning and direct sowing); use of pest resistant/tolerant cultivars and certified seed and planting materials; and optimum use of organic matter etc.
- Prevention of the spread of harmful organisms should be done through field sanitation and hygiene measures (e.g., removal of affected plants or plant parts etc.).

#### Soil erosion. flooding and drainage management

- Soil conservation measures viz., evaporation reduction; use of terrace, contour ploughing and mulching; planting trees and vegetation on the watershed and selecting appropriate crops suitable in local soil, water, and climatic conditions etc. should be adopted.
- Adopt improved land management practices providing inward slope levelling in hill terraces to reduce soil erosion, shape the land to suit irrigation water application and as far as possible, consolidate same nature of parcels to ease farm management.

#### **Pre-harvest:**

Crops will not be harvested within Pre-Harvest Interval (PHI) as prescribed on labels to make the sprayed pesticide lose its toxic potency from the natural chemical breakdown in its exposure to the environment in the farm.

Post-harvest, processing, Management, storage practices and value chain development support:

#### **Storage:**

- Create awareness to promote post-harvest use of pesticides for storage of grains, seeds, roots, tubers, fruits and vegetables at household and farm level.
- Fertilizers must be kept separately from plant protection and with harvested farm products, in a covered shelter in a clean and dry area.
- Make the storage structure elevated and away from moist places in the house; rodent-proof materials should be used; clean surrounding environment to minimize insect breeding, termite or other insect's attack.

#### Post-harvest Handling and Processing:

## Crops Harvesting (Pre

Established well-equipped processing plant with the machines for A CONTRACTOR OF THE PARTY OF TH successful cleaning, grading operations.

& Post), transportation, storage, handling, processing, and marketing

- Add value addition facilities (drying technologies, zero energy cooling chambers, and weighing facilities etc.) and trained the farmers in operation and maintenance of the facilities.
- Equipment shall be washed properly after every use and washing water shall be disposed of in a manner to avoid contamination to produce.
- Portable water should be used for handling, washing and treatment of produce and the water should be changed regularly to avoid spoilage organisms damaging the produce.
- Workers handling fresh produce shall undergo training in basic hygiene and food safety and should be protected from rodents, birds and other animals.
- Packaging materials shall be stored in a proper place to avoid contamination.
- Use of chemicals for post-harvest treatment shall be in accordance with existing national legal obligations.
- Reduce the emission of smoke from burning of fuel and organic load from processing of waste water during processing activities. Maintain safe waste disposal from the premises.
- Involve landless and vulnerable groups and women to work on the processing plant.
- Do not involve child and any kinds of forced labors.

#### **Transportation:**

- Cover loads and use packages that can be sacked without damaging produce, and to prevent water loss and exposure to sun during transportation.
- Avoid harmful emission of gasoline.

#### Market facilities and advice:

- Crop producers shall provide evidence of residue testing. The residue test results should be traceable to the crop producer and the production site.
- Support for advisory services to improve farm-level marketing capacities, and training of farmers' organizations and groups on management, processing, and marketing techniques, including on how to obtain certifications (e.g., organic, fair trade) and how to adapt production to market demand and standards.
- Identify all possible waste products and source of pollution in the farm areas.



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## Avoid the generation of hazardous and non-hazardous wastes, where feasible, or minimize waste generation and reuse, recycle and recover waste in a safe environment. Waste and Avoid land filling or burning by recycling the waste. Crop debris may **Pollution** be composted or reused for soil conditioning. Management • If an offensive odor, or smoke, dust or noises are generated from production practices, management action shall be taken to minimize the impact on surrounding areas. • Efforts should be in place to use environmentally friendly agricultural practices and preventive and remedial measures to reduce nutrients (nitrogen and phosphorous) discharge into the water body. When using fertilizers, consider potential impacts on local water resources or downstream and aquatic life. The facilities for storage, mixing and loading of fertilizer and for composting of organic material shall be located, constructed and maintained in a manner to minimize the risk of contamination to production sites and water sources. Capacity building of farmers must also include understanding of negative impacts of rampant disposal of oil, lubricants, unused pesticides, pesticides containers, plastic tunnels, plastic & metallic compounds, especially batteries in the farm to make farm as safe work Educate in control of noise, dust gaseous pollutants while using farm equipment and small machineries. • A document/ record/certificate that guarantees seed quality (variety purity, variety name, batch number and seed vendor and assure free from injurious pests, diseases, virus, etc.) shall be kept. • Keep the record of organic materials treated on-farm and any fertilizers and/or chemicals used with name of operator, method of application, date and duration of treatment, dosages and reason for its use etc. • Keep the record on organic fertilizers that reflects their source, method of composting, heavy metal content, timing of application, placement, Documentation and the period between placement and harvest etc. & record • If organic material is obtained from outside the farm and there is a keeping for farm significant risk identified, documents shall be available from the management supplier to show that the material has been treated to minimize the risk of contamination to produce. An environmental condition (changes in day and night temperature,

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rainy days or atmospheric humidity, soil moisture etc.) should be

- documented to determine the most appropriate time to irrigate, spray pesticides, apply fertilizers, etc. during the crop growth stages.
- Farmers and farm workers must be protected from the dangers of Plant Protection Products (PPP) exposure and poisoning and should be trained about how to safely and correctly handle the chemicals. Details of recordkeeping on PPP applications should be maintained.
- Operator's safety and comfort must also be considered using farm machineries and equipment.
- Accident and emergency procedures shall be available with clear instructions to the workers. Provision for fire safety and first aid will be made where required.
- First aid boxes should be available at permanent site on the farm.
- Employment conditions shall comply to national regulations.
- On site living quarters (if needed) shall be habitable and have basic amenities and facilities.

## Worker's health, safety and welfare

- Covid-19 regulations and health and safety standards (e.g., use of personal protective equipment, use of safety signs) should be adopted in the construction areas of farm.
- Environment, Health, and Safety (EHS) related orientation and job specific training should be provided to employees.
- Equipment for applying fertilizers and chemicals shall be maintained in working condition and checked for effective operation by a technically competent person.
- Workers/farmers handling the pesticide spray should have all the personal protective equipment-PPE (e.g., mask, gloves, boots, apron etc.). The protective clothing should be clean and functional, and in working order. Personal hygiene and toilet hygiene care must be fully followed before workers handle food products.
- Do not involve child labors/forced labors.
- The workers to be aware of the SEA/SH risks and code of conduct and consequences of non-compliance
- The workers to be made aware of the grievances mechanisms
- Provide sanitary facilities for the all-farm workers.
- Minimize on-farm and off-farm health and environment, making farm as safe work place by safe disposal of unused pesticides, pesticides containers, plastic tunnels, mulch etc.,)
- Sensitize communities on the importance of improving water and sanitation to prevent the burden water borne diseases in the irrigation facilities.

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	• Training for farmers and local communities, including women, youth,
	vulnerable and indigenous people, on sustainable and environmentally
	sound/ good agricultural practices, sustainable management of natural
	resources, agro-biodiversity, nutrient management and cover crop
	technology (green manure), efficient use of energy, water and other
	resources and materials inputs etc.Conduct demonstrations and
	trainings on improved water management practices and technologies.
	• Capacity building activities of farmers, workers, members of POs etc.
Training and	for the selection, distribution, storage, application and dose of pesticides
capacity	and fertilizers.
building of	• Educate farmers in control of noise, dust gaseous pollutions, disaster
farmers/workers	risks like fire, soil erosion/landslides, windstorm etc.
	Educate and train farmers on use of bio-pesticides.
	• Awareness and training must be provided on spraying equipment use;
	calibration and cleaning; correct disposal of left-over chemicals and
	waste water from cleaning and pesticide containers; use and care of
	Personal Protecting Equipment (PPE); minimizing use of pesticides that
	damage non target species and contribute to the development of
	resistance in pests and vectors;
	Awareness and training will be provided on spraying equipment use;
	calibration and cleaning; correct disposal of left-over chemicals;
	wastewater from cleaning and pesticide containers; use and care of
	Personal Protecting Equipment (PPE) (face masks, gloves, boots, etc.)
	and efficient use of energy, water and other resources and materials
	inputs.
	• Train producers (farmers) in the application of Good Agricultural
	Practices (GAPs), including production and application method of bio-

## 3. ESCoP for Livestock Husbandry and Processing Activities

fertilizers and disease management.

Particulars	Code of Practices
	• Conduct a preliminary local assessment about resources (e.g., water, grass, fodders, timbers, construction materials etc.), their availability and quality; existence of any social conflicts on resource use (e.g., up/down stream water use, forest products, conflict in open-access grazing etc.); potential climate-related hazards in the region/watershed; sensitivity of ecosystems (e.g., presence of terrestrial fauna and avifauna, existing major threats) and potential impacts of the sub-project.





## Exclude the subprojects mentioned in negative (exclusion) list of subproject activities mentioned in Project's Startup Grant Operating Manual. Forests area within the Area of Influence (AoI) of the livestock farming and processing activities should be protected from encroachments, illegal logging and forest product harvesting and hunting. Do not introduce non-native or non-locally adopted species, breeds, Resources use genotypes or other genetic materials to an area or production system. Adopt livestock adaptation strategies and options such as investment on local breeds and/or improved local breeds that are adapted to local climatic stress and feed sources, e.g., by cross-breeding local breeds with heat-and disease-tolerant breeds; promoting innovations in livestock management that are compatible with production objectives and management strategies, including fodder trees and crops, and use of crop residues. Promote efficient storage, handling and use of feed by maintaining records of feed purchases and livestock feed use. Train producers in the application of Good Veterinary Practices (GVPs), including proper feed preparation. Use covered or protected feeders to prevent feed from exposure to rain and wind. Grind feed to increase utilization efficiency by the animals, allowing the use of less feed as well as increasing the production efficiency Make high quality silage to ensure source of nutrients and carbohydrates for the animals. Adhere to permitted abstraction volumes of water as stipulated in water user permits. Ensure community water sources as not compromised. Established grievance redress mechanism to deal with conflicts. Practice cost efficient measures related to groundwater protection and use of water-saving technologies to reduced water withdrawals, water applied, and water consumed. Reduce the amount of water used during cleaning (e.g., by using highpressure, low-flow nozzles etc.). The use of electricity and fuel should be reviewed to ensure that efficient operation practices are implemented.

# Soil erosion/runoff

- ensure the efficiency of operation and to save energy.
  Contour and minimize length and steepness of slopes if any.
- Use mulch and revegetate (plant grasses, fodders, fast growing plants/trees etc.) or compacted soil to stabilize exposed areas and erosion prone and degraded sites.

Machine and equipment shall be maintained in good condition to

• To control overgrazing use rotational grazing and stall-feeding system to animals.

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	• Increase the carbon to nitrogen ratio in feeds to reduce methane and
	nitrous oxide production.
	• Control the temperature, humidity, and other environmental factors of
	manure storage to reduce methane and nitrous oxide emissions. This
A	may involve use of closed storage tanks or maintaining the integrity of
Air quality	the crust on open manure storage ponds / lagoons.
	Regularly collect and store manure for composting and later
	application to fields to reduce noxious odors and to limit spread of
	pathogens.
	• Improve the productivity and efficiency of livestock production (thus,
	lowering the methane emissions per unit of livestock) through
	improvements in nutrition and genetics.
	Fence off water bodies from grazing animals.
	• Ensure that water quality is appropriate for livestock, aquaculture and
	fisheries purposes.
	• Ensure production and manure storage facilities are constructed to
	prevent urine and manure contamination of surface water and
	groundwater (e.g., use concrete floors, collect liquid effluent from
	pans, and use roof gutters on buildings to collect and divert clean storm
	water).
	Remove sources of contamination, promote better agricultural and
	storage techniques (control temperature and aeration) and ensure
Water quality	adequately resources are available for water quality testing and early
	diagnosis.
	• Use preventive and remedial measures to reduce nutrients (nitrogen
	and phosphorous) discharges to the water body to protect from water
	pollution.
	• Keep waste as dry as possible by scraping wastes instead of, or in
	addition, to flushing with water to remove waste.
	• Locate manure stacks and urine away from household area, water
	bodies, floodplains, wellhead fields, or other sensitive habitats.
	Safe disposal of animal by-products.
	Understand and comply with legal obligations in relation to the
	prescription, safekeeping, use, supply and disposal of medicinal
	products used in the production of livestock.
	Any problem relating to the handling or administration of medicinal
	products shall be recorded and dealt with according to general
	pharmacovigilance principles and requirements.
Dallastian	Reduce pollution of the environment by waste avoidance, recycling,
Pollution	using re-usable articles when appropriate, and correct disposal of
prevention and Waste	waste. Reduce environmental pollution by careful and appropriate use
	of disinfectants, medicinal products and other chemicals.
Management	• Organize facilities for separate collection of different types of
	veterinary waste so that they can be sent to the appropriate recycling
	points in a safe manner.

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	<ul> <li>The wastes generated from the breed improvement activities, livestock husbandry, milk chilling center, use of animal health kits, vaccination &amp; other medicines activities may bear the characteristics of infectious (e.g., carcasses of dead animals, tissues and organs); sharps lab, plastics, papers, textile and other equipment (e.g., blades, needles, syringes, scissors, forceps, glassware), should be the matter of prime concern and require special attention.</li> <li>Practice the basic waste disposal methods such as the disinfecting (including autoclaving etc.) and proper disposal (including incineration etc.), activities.</li> <li>Consider covering manure piles with geotextiles (which allow water to enter the pile and maintain composting activity) to reduce fly populations.</li> <li>Disposed solid waste (e.g., food waste packaging, sarap metal etc.) as</li> </ul>
	• Disposed solid waste (e.g., food waste, packaging, scrap metal etc.) as per best practice guidelines: recycle, reuse, recover and reduce waste. Also sensitize workers/farmers/ fisherman/ processors on waste management practices.
	• Train producers to apply balanced doses of organic and chemical fertilizers to the cultured water body.
	• Train business clusters on cleaning of poultry, goat/pig rearing hut, shed etc. and dumping, composting and disposal of fecal matter to nearby safe dumping/collection corners or compost pit.
Animal welfare and care	<ul> <li>Ensure the welfare and health of the animals, treat all animals in their care with respect.</li> <li>Regular cleaning of livestock sheds and feeding pans.</li> <li>Use mechanical controls (e.g., traps, barriers, light, and sound) to kill, relocate, or repel pests.</li> </ul>
Processing of Livestock Products	<ul> <li>Dealing with workplace hazards, the engineering control measures (e.g., installation of good ventilations, chemical fume hoods, biological safety cabinets and sewage treatment plants) and administrative control measures (e.g., modifying work schedule, developing &amp; practicing Standard Operating Procedures-SOP) including use of personal protective Equipment (PPEs) etc. should be adopted. Ensure maintenance of machineries are done ensuring proper management of mechanical wastes.</li> <li>Established well-equipped processing plant with the machines for successful cleaning, grading operations.</li> <li>Add value addition facilities (drying technologies, zero energy cooling chambers, and weighing facilities etc.) and trained the farmers in operation and maintenance of the facilities.</li> <li>Equipment shall be washed properly after every use and washing water shall be disposed of in a manner to avoid contamination to produce.</li> <li>Portable water should be used for handling, washing and treatment of produce and the water should be changed regularly to avoid spoilage organisms damaging the produce.</li> </ul>

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- Packaging materials shall be stored in a proper place to avoid contamination.
- Reduce the emission of smoke from burning of fuel and organic load from processing of waste water during processing activities. Maintain safe waste disposal from the premises.
- Involve landless and vulnerable groups and women to work on the processing plant.
- Do not involve child and any kinds of forced labors.

## Health & Safety and COVID-19 Protocols

- Veterinarians, farmers, labours, members of POs, customers etc. should take all reasonable precautions on safety, health and welfare in particular concerning manual handling; slips, trips and falls; fire safety; work equipment; hazardous substances etc.
- Workers that workers with farm animals may be exposed to different types of viral, bacterial, ecto-parasites, endo-parasites and zoonotic diseases (e.g., salmonellosis, campylobacteriosis, fever, pneumonia etc.). So appropriate measures to minimize the risk of exposure to zoonotic agents, food borne pathogens, residues, contaminants (biological and chemical agents) and antimicrobial resistance and other work-related illnesses should be adopted.
- The protocols should include requirements on wearing masks PPE, physical distancing, hand washing, disinfection, checking body temperature, ventilation, management of waste, awareness, and morning briefings on the farms.
- Ensure all equipment and vehicles used are routinely disinfected.
- Provide thermometer, soap, sanitizer, disinfectant, PPE at farm sites.
- Place adequate washbasins, disinfectant tub, dispenser for sanitizer.
- Provide regular briefing/training on preventive requirements to the workers and post enough COVID-19 awareness posters throughout the worksites.
- Maintain a high level of personal hygiene and cleanliness.

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