K-11067/01/2020-21/NRLM(Livelihoods)/NRETP (e-374753)
Government of India
Ministry of Rural Development
Rural Livelihoods Division
DAY – National Rural Livelihoods Mission

7th Floor, NDCC II Building
Jai Singh Road, New Delhi, 1.
Dated 7th May, 2021.

To

The States Mission Director,
NRETP States.

Subject: Advisory on Environment Management Framework under NRETP.

Madam / Sir,

I am directed to say that the NRETP Environment Management Framework addresses the risk related to environment for the project activities. An advisory on the environment management framework with implementation arrangement has been approved by the Ministry (attached). It will act as a guidance note to integrate the environment safeguard requirements, good environment management practices and green opportunities/enterprises into the project supported activities.

You are requested to incorporate the plan under the EMF to the NRETP Annual Action Plan of 2021-22 as addendum and implement the activities in the NRETP areas and report compliance to the Ministry.

Yours faithfully,

(H. R. Meena)
Deputy Secretary to Govt. of India

Copy to

1. PPS to JS, RL I
2. PPS to JS, RL II
3. Director/ (RL)
4. State Anchors
5. All thematic units of NMMU

Advisory on

Environmental Safeguards and Environmental Management Framework (EMF)

under NRETP

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Section – I: About Environmental Safeguard Policies and Environmental Management Framework (EMF)

1) About National Rural Economic Transformation Project (NRETP)

The National Rural Economic Transformation Project (NRETP) is implemented by the Ministry of Rural Development. The Project Development Objective is '*to establish efficient and effective institutional platforms of the rural poor that enable them to increase household income through sustainable livelihood enhancements and improved access to financial and selected public services'.* The proposed project targets increase technical assistance and investment support towards scaling up of the economic transformative initiatives. Under the component 'State Livelihood Support' the focus is on facilitating the uptake of economic activates under farm, non-farm and skill development interventions. Under the component Innovations and Partnerships, Food Nutrition Health and Water Sanitation (FNHW) pilots are supported.

The Farm value chain interventions focus on the promotion of producers' collectives, viz. producers' groups and producers' enterprises to enable the small and marginal women farmers to access markets. The institutional structure would be based on the opportunities and existing gaps in the value chain. Besides, NRETP seeks to build on the platform under Farm Livelihoods interventions by promoting organic cultivation in select States. As part of the Non-farm initiatives, the focus is on promoting One Stop Facilities (OSF) in the blocks, strengthening the performing individual and groups enterprises from Start-up Village Entrepreneurship Program (SVEP) enterprises, and NRLM cohort and Strengthening of existing high-performing group enterprises. The FNHW interventions include behavioral change communication in health, nutrition and sanitation (with focus on kitchen gardens, 1000 days window, hand washing, usage of toilet, menstrual hygiene, solid and liquid waste management etc.).

2) About the Environment Management Framework (EMF) for NRETP

The above-mentioned project interventions/activities can have certain environmental implications (both positive and negative). Implementing the interventions envisaged under the project may trigger certain negative impacts on the surrounding environment if the appropriate safeguard measures are not integrated. It is very important to consider that all the interventions should be compliant with the laws and regulations of the country and the States, i.e., the legal and regulatory frameworks (on environment) based on Government of India, concerned States Government and the environmental safeguard policies of the World Bank. Compliance and adherence to these rules and regulations will ensure alignment of project investments with sustainable management of concerned natural resources and surrounding environment. The table below presents a snap shot of the key potential environmental implications of the proposed interventions under different sectors:

Key Interventions	**Environmental Implications**
Farm Interventions	• Mandatory Compliances where applicable • Organic clusters: possibility of positive impacts on soil, biodiversity • Need for better crop residue management (e.g.: crops like paddy, wheat) • Scope for renewable energy interventions (e.g.: solar water pumping), water conservation as best practices • Need for good practices in produce aggregation, transportation etc. for food safety • Promotion of low-cost drip in kitchen gardens as best practices

Livestock related Interventions	• Permissions in forest areas, vaccinations for cattle grazing in forest areas (mandatory) • Stress on fodder and water resources, animal housing and hygiene management, manure management • Green House Emissions from cattle • Wastes from Bulk Milk Chilling Units – management
Non-Farm Interventions Value Chain Interventions	• Permits and licenses as per legal and regulatory compliances (mandatory) • Standard Operating Procedures (SoPs) and Codes of Practices (CoPs) for enterprises • Occupational safety, health and hygiene for enterprise workers • Efficient use of resources (energy, water etc.) • Waste management (if any) • Need for special precautions under COVID scenario • Scope for promotion of green enterprises, Greening the value chains as best practices
Skills	• Occupational health and safety aspects • Scope for green skills promotion as best practice
Food, Nutrition, Water and Sanitation	• Need for maintaining safety standards and protocols for drinking water, toilets • Promotion of green toilets

To address these concerns as well as opportunities, an Environmental Management Framework (EMF) is prepared for the NRLP which is applicable for NRETP. An addendum is also developed for NRETP keeping in view the new additions/developments. These documents have captured majority of the Acts, rules, and regulations of the government of India, respective State governments and the safeguard policies of the World Bank concerning livelihood activities that are likely to be supported under NRLM/NRETP. All of the policy requirements, good environment management practices are available in NRLP EMF document (can be sourced at - https://aajeevika.gov.in/sites/default/files/resources/national_reports/NRLP-EA-EMF-Final-Main-Report.pdf) and EMF NRETP addendum (can be sourced at - https://aajeevika.gov.in/sites/default/files/resources/national_reports/NRLP-EA-EMF-Final-Main-Report.pdf).

In addition - all important policy requirements (that are applicable), environment management guidelines, mitigation measures, best practices etc. for the proposed project interventions and examples for green opportunities/enterprises etc. are attached as Annexures in the respective sections of this advisory document.

The purpose of this advisory document is to provide basic guidance to the State anchor persons (environmental safeguards) and thematic teams (Farm, Non-Farm, Food Nutrition Health and WASH) at district and block levels so as to integrate the safeguard requirements, good environment management practices and green opportunities/enterprises into the project supported activities.

3) Details of the Environment Management Framework

The EMF suggests a two-pronged approach - that is '**do no harm'** to environment by adhering to the safeguard policies, legal regulations as well as mitigations/ guidelines and to **'do good'** by promoting

good practices in environment management and greening value chains /enterprises and also through promotion of 'green enterprises'.

The EMF covers the following aspects:

3.1. Safeguard Policy measures, Legal and Regulatory Requirements

The environmental safeguard policies are designed by World Bank to avoid, mitigate or minimize adverse environmental impacts of the supported projects. These are the necessary compliance requirements for the project. The NRETP interventions trigger the following safeguard policies of the World Bank:

- **Environmental Assessment (OP 4.01)** – triggered to evaluate potential environmental risks and impacts in project area and area under influence
- **Forests (OP 4.36) –** triggered to put in place the measures to avoid i) potential impacts on health and quality of the forest, ii) negative impacts on people dependent on forests or iii) changes in the management of forests
- **Natural habitats (OP 4.04) –** triggered to put in place the measures to avoid significant conversion or degradation of natural habitats directly or indirectly
- **Pest Management (OP4.09) –** triggered to avoid use of harmful pesticides (WHO classes Ia, Ib and II) and promote safety measures in activities involving use of pesticides. Non-permissible pesticide list is available in the document '*WHO recommended classification of pesticides by hazard and guidelines to classification*' available at https://www.who.int/ipcs/ publications/pesticides_hazard/en/. However, the project is only promoting organic farming methods; hence this policy is already complied with. The reference is cited for knowledge only.

In addition to the World Bank Safeguard Policies, the project needs to comply with the legal and regulatory requirements of Government of India and respective State governments. Wherever there is a difference in the World Bank Safeguard policies and the legal and regulatory requirements of the Government of India and the respective state governments, the Governments rules and regulations shall override World Bank's safeguard policies. The details of legal and regulatory requirements are attached as annexures under different interventions in the following sections. All the SRLMS are to make sure the project funded activities are in compliance with the legal and regulatory requirements and none of the activities under project funding are in non-compliance.

3.2. Mitigation Measures and Environmental Guidelines/Good Practices

In addition to the safeguard policies and legal & regulatory requirements, EMF also suggests mitigation measures and best environmental management practices in managing the livelihoods.

The interventions under NRETP include promotion of farm, non-farm sectors, specifically individual and group enterprises around agri-produce, livestock & non-farm enterprises. The activity (type of livelihood activity) wise mitigation measures and best environmental management practices under different thematic areas (agriculture, value chains, livestock, fisheries, non-farm enterprises etc.) are attached as Annexures under different interventions in the following sections.

3.3. Green Opportunities

The EMF for NRLP also presented a bouquet of Green Opportunities (section 5 of NRLP EMF, page 85), which describe how organizations have addressed environmental issues by developing innovative Green Solutions that have resulted in Green enterprises and Green livelihoods.

Wherever possible, SRLMs are encouraged to promote green activities, especially green enterprises under non-farm (at least 2 per State, initially as pilot with a scale up plan) which may cover the environmental best practices around water and/or energy foot print, waste generation and disposal, worker and community safety, eco-friendly packaging, sourcing quality (organic) raw materials locally and green product certifications. In the context of the farm intervention this initiative may cover promotion of varieties suitable to the climate, manufacture and use of organic fertilizers and bio pesticides, integrated crop management practices – IPM, INM, less energy intensive transport, local markets, storage, crop residue utilization and organic certification. Additional workshops can be organized for SRLMs on this theme based on the initiatives chosen by States.

4) EMF Implementation Arrangements

4.1. EMF Implementation Plan: The approach of EMF will be to streamline the 'safeguard measures' and 'good practices' (including green interventions)' into day-to-day livelihood management practices. The process for integration will be as follows:

Step I - Integration into Project Planning: The State annual actions plan should include a section/plan on EMF which is a detailed action plan based on the procedures described in the subsequent sections. The plan is called as Environment Action Plan (EAP). The EAP template is attached as *Annexure 1*. This should be made part of AAP every year. This plan can also record the currently existing good practices, and green enterprises that are already promoted in the States. The SRLMs should issue necessary circulars/guidelines on the necessity of complying with safeguard measures and following good practices.

Step 2 - Staff Arrangements: At national, State levels the anchor persons (identified by NMMU) will have the responsibility of the EMF implementation. At the districts, cluster and federation levels the thematic teams (farm, non-farm, FNHW) with the support of the Community Resource Persons (CRPs) will play the key role in promoting the safeguard measures and best practices. Technical Support Agencies (TSAs) will be involved wherever required.

Step 3 – Implementation Arrangements: The implementation will be supported through capacity building (trainings and demonstrations). The responsibility of the anchor persons is to support in integrating the applicable safeguard and legal regulatory requirements, good environment management practices, and scope for green opportunities/enterprises into the respective training modules (farm, non-farm, FNHW), training programs etc. and make sure that these are implemented in the project activities through continuous hand-holding support to district and block teams.

Wherever possible, in addition to safeguard measure, the anchor persons are to promote green enterprises. Information Education and Communication (IEC) will be developed on each activity/commodity (e.g.: posters, films) and distributed to the PGs/PCs/POs, federation etc. As part of the organic farming interventions in NRETP areas, the guidelines of the MoA on the PGS will be applicable and the Local Groups will be registered in the PGS-Portal.

Step 4 - Monitoring: It is very important to monitor the compliance of the farm interventions (e.g.: licenses for inputs, tube wells for water use, agriculture in forest areas/natural habitats etc.) and enterprise on the adherence to the legal & regulatory requirements (e.g.: Pollution Control Board consents, FSSAI licenses, worker and consumer safety measures etc.) and tracked through internal monitoring and external monitoring (environmental audit).

The impact of EMF implementation will be measured through a 'sustainability index' that is developed for different activities as given in *Annexure II*. The minimum score qualifying the 'sustainability index' will be 7 points. The practices under sustainability index are the 'monitoring

indicators' and data on the same should be compiled through the MIS at cluster and district levels and should be consolidated at State level without fail.

Internal monitoring: The implementation of the safeguard measures and good practices will be reported by the States through the project MIS or end line survey whichever is more suitable (the State anchor person is to take the responsibility of this integration with support from NMMU if needed). The MIS indicators are the practices mentioned in sustainability index *(Annexure II)* The CRPs are to be trained in promoting the safeguards and good practices and should play a key role in monitoring and collecting the data. The quarterly and annual progress reports will have a section on progress of EAP. The template is part of *Annexure I.*

External Monitoring: An external audit will be conducted by hiring an external agency in the 4th or 5th year of the project period. The external audit will include visits to all 13 States. The methodology will include desk review (MIS data and internal reports) and field visits. The indicators for external monitoring are given in *Annexure II* (for reference only).

Section –II: Integration of Safeguards into Farm, Non-farm, Skills Interventions

1) Sub Section I – Farm Interventions

a. **Safeguard Requirements and Environmental Screening Procedures for Farm Enterprises:** The Farm value chain interventions would focus on the promotion of producers' collectives, viz. producers' groups and producers' enterprises to enable the small and marginal women farmers to access markets. NRETP has targeted to promote large size formal producers' collectives focusing on better price realization through value addition, market linkage, economies of scale, higher bargaining power etc. whereas the producers' groups are informal producers' collectives focusing on better price realization through majorly reduction in costs through aggregation, farm gate value addition (sorting, grading etc.), linkage to nearby large markets. The Producers Enterprises will be promoted by the SMMU whereas the Producers Groups will be promoted by CLF with the support of SRLM.

b. **Integration of Environmental Safeguards/compliances into Farm Enterprises:** Value chain development through promotion of Producers Enterprise (PE) will be project-based implementation where SRLM will develop & submit the business plan to the Ministry in the template and the Ministry approves the project after due appraisal. Producers Enterprises supported under the NRETP shall follow all the applicable legal and regulatory compliances pertaining to the Producers Enterprises. The format for safeguard integration into the PE business plan is in *Annexure I.*

   For promotion of Producers Groups, the SRLMs assist the CLF/GPLF and PGs in preparation of the business plans for the PGs and the PGs will be funded by the concerned CLF/GPLF. SRLM will support CLF/GPLF incorporation of the applicable legal and regulatory compliances in the business plan of PGs, if required based on the proposed activities of the producers' groups. Applicable environmental guidelines/ mitigations/ safeguard compliances/ good practices will be identified and will be promoted by integrating into trainings, monitoring etc. The format for the same is attached as Annexure II.

c. **Integration of the Environmental Safeguard Requirement into Training:** Training curriculum of the PE staff, PG member and the Udyog Sakhi should include a module on environmental compliances and good environment management practices/guidelines for different farm-based enterprises based on the nature of activities covered by the collectives. SRLM is to ensure integration of the environment management practices / guidelines in the

training curriculum. Relevant IEC materials may also be developed by SRLM on the environment management practices/ guidelines circulated. *Annexure III* can be referred for guidelines.

d. **Monitoring of Safeguard Compliance:** Safeguard compliances as planned by the Producers Enterprises will be monitored by the States who have been sanctioned with the value chain projects. The concerned CLF/ GPLF will be responsible to monitor the safeguard compliance of the Producers Groups as per the plan. Orientation and training of blocks level staff as well as the officials of CLF/ GPLF to monitor the safeguard compliances at PG level would be ensured by the SRLM. The monitoring indicators (termed as sustainability index) are in the *Annexure II* of the Section I.

2) Sub Section II – Non -Farm Interventions

a. **Safeguard Requirements and Environmental Screening Procedures for Non-Farm Enterprises:** NRETP will be supporting individual and group-based micro enterprises in different sectors/categories. The One Stop Facility (OSF) at block level (one facility for 2-4 blocks) will play a key role in facilitating the enterprises by means of providing business development services (including funding). The main/core support from OSF includes – business plan preparation, hand holding support, market linkages and trainings. Ensuring regulatory compliances and monitoring are also the part of important support services offered by the OSFs.

For enterprises that have achieved a certain scale (annual turnover more than INR 12 lakh), the project envisages to pilot an approach of providing specialized support services through expert agencies or incubators. The incubator will support top 150 women-owned / women-led growth- oriented micro-enterprises in 3-4 States and provide them with a conducive ecosystem to scale up and create rural jobs.

NRETP identifies cluster development as a key approach for combining efforts, making use of synergies, and pooling resources to increase competitive advantage while sharing market risk. Both artisan (handloom and handicrafts) and sectoral clusters (canteens, apparel, rural tourism, etc.) can be promoted under NRETP. Each cluster supported under the project will be supported by a Technical Support Agency (TSA) to support the cluster in developing business plans, nurturing forward and backward linkages, securing commercial finance, and facilitating access to technology and market-oriented skills.

b. **Integration of Environmental Safeguards/compliances into Non-farm Enterprises:** As part of promotion of non-farm enterprises, The OSF responsibilities should also include integrating safeguard requirements and ensuring compliances in the supported enterprises. The recommended process of integration is to as follows:

2.1. Environmental Screening and Appraisal of the Business Plan: All the enterprises should be informed that they have to follow the legal and statutory compliances.
The business plans that are prepared will be screened (environmental screening) in order to identify the applicable legal and regulatory compliances to the proposed activity. The screening will be done by Business Development Service Providers (BDSP) with support of Block Technical Coordinator (Enterprise Promotion). The OSF-MC (technical and financial appraisal) committee may vet this.

Applicable environmental guidelines/mitigations/safeguard compliances/good practices will be identified and will be promoted by integrating into trainings, monitoring etc. the format for the same is attached as *Annexure I.* The activity wise details are attached in *Annexure II.*

2.2. Integration of Environmental Safeguard Requirements into the Trainings

The BDSP training curriculum should include a module on environmental compliances and good environment management practices/guidelines for different types of enterprises. The responsibility of overseeing the integration is with State Technical Expert Enterprise Promotion (STE EP). IEC can be prepared by States in local languages (following the model disseminated by the NMMU).

Monitoring the Safeguard Compliances: The BDPS/BTC - EP, as part of the performance monitoring of the enterprises, will also monitor the compliances with safeguard requirements. The monitoring formats (if any) and MIS should include indicators on safeguard compliances. The responsibility of overseeing the integration is with State Technical Expert Enterprise Promotion (STE EP). The monitoring indicator for the safeguard compliances is 'compliance with all applicable consents/permits/'with respect to the activity as identified.

2.3. Promotion of Environmental Safeguards in different types/categories of activities and clusters

Promotion of Artisan Clusters: The scoping studies, Diagnostic Study Reports should include environmental and health related issues associated with the type of activity in the clusters (e.g.: over exploitation of natural resources for raw materials, disposal of wastes like used dyes, handling of hazardous chemicals substances etc.). The study should also list out the legal and regulatory compliances pertaining to the specific activity as suggested in the *Annexure I*. The mitigations/guidelines and good practices can also be listed using the format in *Annexure II*. The annual work plan submitted by TSAs should include a section on environmental compliances and the trainings/CB programs to the members should include a module on good practices for health, hygiene, waste management etc. in the specific cluster. The Environment guidelines can be referred for the guidance on the same (*Annexure III*). The indicative format for inclusion of safeguards in scoping study, DSR, annual work plan is given in *Annexure 1V.* (Health risks, permits/licenses etc. are mentioned in templates/framework).

The monitoring activities by TSA should cover safeguard compliances, promotion of good practices. The mid-term and project completion reports should include a section on environmental safeguards covering the compliances, good practices followed etc. Scope for green production can be explored and promoted on pilot basis (examples are listed in *Annexure III*) Once the activities/technologies are chosen necessary guidance can be provided to the States.

TSA Trainings by NMMU should also include a section on safeguards. –

Promotion of Sectoral Clusters: The cluster level action plans should undergo screening process (*Annexure I*) for identifying the applicable compliance requirements and good practice guidelines. The TSA business plan, annual work plan etc. should include a section on safeguards integration.

Incubation Guidelines: All the enterprises should be informed that they have to follow the legal and statutory compliances. The proposed screening format is included in *Annexure I* which could be made part of business proposal/application. Guidelines mitigations measures, good practices can also be integrated using format in *Annexure II*. The

responsibility of overseeing the integration is with State Technical Expert Enterprise Promotion (STE EP).

Along with the screening, applicable environmental guidelines/mitigations/good practices will be identified and will be promoted by integrating into trainings, monitoring etc. The activity wise details are attached in *Annexure III.*

3) Sub Section IV – Guidelines for Skill Interventions, Scope for Green Skills

Skill Interventions may include:

- Aspects/modules on occupational health and safety, use of Personal Protective Equipment for the skill trainings.
- Consider scope for green skills while identifying the skills/sectors by the States. Some examples are:

Sector	Possible Green Skills and Green Jobs
Agriculture	Preparation of Organic Fertilizers and Pesticides
	Pest Management Practices (PMP)
	Permaculture design services
Livestock/ Agriculture/ Food Production	Waste Management (Waste Minimization, Waste recycle and reuse) through biogas plants
Energy	Solar Technicians, bio gas service providers
Masonry	Green Constructions
Forestry	Sustainable Collection, Processing and Marketing of NTFPs
	Eco Tourism
Garments with dyeing	Organic dye preparation
Handicrafts	Recycled paper products

4) Sub Section V – Guidelines for Infrastructure

Guidelines for construction works/Infrastructure

Infrastructure Compliances

- The land record should be available (lease, donation, ownership etc.)
- NOC should be obtained from forest department in forest areas where applicable
- The demolition and construction wastes should be disposed in designated area in consultation with local panchayat/municipality. Preferably used for land filling or any other alternate purposes
- No trees should be cut for construction. In case if clearance of trees is required re-plantation should be done with same or any other suitable local species. Permissions should be taken for clearance where applicable.
- If there is need to create water source (tube well), permission should be taken from ground water department.

Environment Guidelines/Mitigations/Good Practices

- Constructions should not happen in fertile agricultural lands or borrowing soil from fertile agricultural lands for construction should be avoided
- Construction site should not be prone to water logging or inundation during monsoons
- All the construction waste should be disposed into a pre identified land fill or used for construction of roads under NREGS etc. The condition of disposal should be built into the contracts
- Ensure required ventilation and natural illumination to reduce the need for energy
- Fire proof and leakage proof measures to be integrated into the building design
- Removal of mature trees should be avoided during construction. If unavoidable, compensatory tree plantation with same species or suitable local species will be carried out in consultation with Forest Department
- All buildings will be equipped with toilets and receptacles and a system should be established for collection and recycling of non-biodegradable wastes
- Wherever necessary provide ramps.
- Provide safety measures like parapet walls, and grill to stairs, balconies and roof.
- Raw materials will not be sourced illegally from nearby locations
- All raw materials (sand, stone, timber etc.) will be sourced from authentic and approved vendors, possessing valid permits. Relevant supporting documents should be presented for scrutiny on request.
- Ensure safe and covered stockpiling of the construction materials in separate place or a corner in the premises of building.
- Stockpiled materials should be covered to control dust emissions.
- Construction debris should be put to alternate uses such as land filling. If not utilized it should be disposed off in nearby safe places.

COVID Advisory/ Guidelines for Construction Works

- On day zero, before resuming/commencing the work, mandatory medical check-up should be arranged for all workers. In case of any person with symptoms such as fever or cough, an ambulance should be arranged immediately through 108 or 104, and the person should be shifted to designated hospital.
- Before commencing the work, morning briefing sessions and safety meeting should be arranged every day, to review site protocols ensuring social distancing norms. Workers should be briefed about safety guidelines and important updates.
- Mandatory thermal scanning of everyone entering and exiting a construction site should be done, and provisions for water, soap or hand wash or sanitisers should be made at all entry and exit points and common areas, and every worker and engineering staff should wash or sanitise hands while entering and exiting the premises.
- Face masks are mandatory, and hand gloves should be used by the workers handling material coming from outside.
- Strict ban should be imposed on gutka, tobacco, and paan on the site, and spitting in common areas should be strictly prohibited.
- In case of camps - Identity cards should be issued to workers and their family members, and proper record of all the workers should be maintained. All the essential items should be made available on site. No outside worker should be allowed to stay inside the premises.
- Staggered timings should be implemented to avoid congestion at the entry gates, and number of workers at a particular time or place should be reduced by making arrangements for different shifts or areas.

- Food should be consumed at designated areas following social distancing. Seating area at recommended distance should be marked if necessary.
- Entire construction site should be disinfected on daily basis and housekeeping teams should be equipped accordingly. Ban should be imposed on non-essential visitors at sites, even if it is from the same company.
- All machines or vehicles should be disinfected regularly and all construction material arriving at the site should be left untouched for three days "to ensure safe usage".
- Reusable equipment should be thoroughly cleaned and should not be shared.
- Authorised hospitals and clinics to treat COVID-19 patients should be identified and the list should be displayed at the site. A doctor should visit periodically for any medical assistance.
- Sites should have isolation rooms to be used in case a worker exhibits symptoms of COVID-19. The worker should be kept in isolation while medical advice is sought. Apart from supervisors, sites should also have a site safety representative
- Appropriate signage should be displayed in local language/Hindi.
- Non-touch garbage bins with biodegradable garbage bag should be installed for waste collection, and proper disposal of garbage bags should be ensured. All protocol including emergency response must be laid out as per guidelines issued by government

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ANNEXURES

Section –I: Environmental Safeguard Policies and Environmental Management Framework (EMF), Implementation Arrangements

Annexure 1: Template for Environmental Action Plan (EAP) in the Annual Action Plan (tentative, can be modified as per need)

A brief write-up in a separate section on EAP to be incorporated in the Annual Action Plan of the State with the table given below:

The Key Livelihood Activities/ interventions	**Types of activities to be promoted/ scaled up**	**Key safeguard measures, mitigations and best practices that will be integrated into the Practices, Guidelines etc.**	**Plan for Capacity Building (number and frequency of trainings, exposures, demonstrations, IEC materials etc).**	**Monitoring Plan (through MIS, progress reports etc.)**	**Budget allocated**
Farm Interventions					
Non-farm Value chains Enterprises					
FNHW					
Skills					
Any others					

Template for Progress Report

The Key Livelihood Activities/interventions	**Types of activities to be promoted/ scaled up**	**Proposed EMF actions**	**Progress**	**Remarks if Any**
Farm Interventions				
Non-farm Value chains Enterprises				
FNHW				

Annexure II: Sustainability Index
The practices to be tracked through the internal monitoring are:

Activity	**Safeguard Measures and Good practices**	**Score**	**Minimum score for sustainability[1]**
Agriculture	Deep Summer Ploughing	2	
	No use of pesticides and Non-Chemical methods of Pest Control - minimum 3	2	
	Soil Test based fertilizer/nutrient application	1	
	Use of Organic Manures only	3	

Activity	Safeguard Measures and Good practices	Score	Minimum score for sustainability[1]
	System of Crop Intensification (or) Drip Irrigation (or) Mulching	2	
	Total	***10***	***7***
Dairy	Keeping the locally Suitable breed as suggested in State Breeding Policy	2	
	Fodder cultivation/fodder tree cultivation/azolla	2	
	Chaffing (cutting) the fodder before feeding	1	
	Stall feeding (at least partial)	1	
	Clean, spacious and ventilated sheds with feed and water troughs	1	
	Composting of the manure	2	
	Regular vaccinations	1	
	Total	***10***	***7***
Goatary	Keeping the locally Suitable breed as suggested in State Breeding Policy	2	
	Fodder cultivation/fodder tree cultivation Stall feeding	1 1	
	Chaffing (cutting) the fodder before feeding	1	
	Clean, spacious and ventilated sheds with feed and water troughs	2	
	Composting of the manure	2	
	Regular vaccinations	1	
	Total	***10***	***7***
Fisheries	Culture of locally suitable species, poly culture (no banned, invasive species like cat fish, tilapia)	2	
	Observing government regulations like ban season in natural water bodies	1	
	Application of nutrients based on soil and water testing	2	
	Application of organic manures only	2	
	Permissions from Panchayat/Department as applicable or lease agreement	2	
	Integrated fish farming practices	1	
	Total	***10***	***7***
Non-Timber Forest Produce	Permission from the Forest Department for collection/ cultivation as required by the laws	3	
	Collection of produce only after the maturity	2	
	Sustainable method of collection - nondestructive collection leaving 25% of produce for regeneration	2	
	Permission for transit	1	

Activity	Safeguard Measures and Good practices	Score	Minimum score for sustainability[1]
	Actions, measures for regeneration of the selected species	2	
	Total	***10***	***7***
Non-Farm Enterprises and value addition Eg: milling, drying, processing and packaging	Permission/consent from Pollution Control Board/FSSAI etc. if applicable	2	
	Water use efficiency, resource use efficiency, Use of energy efficient machinery, tools etc.	1	
	Good working conditions - space, ventilation, basic amenities	2	
	Hygiene in processing/value addition, packaging etc.	3	
	Use of natural/safe/quality/permissible ingredients, raw materials	2	
	Total	***10***	***7***

The key sustainability indicators (tentative) for external monitoring are:

Commodity/sector	***Sustainability indicators***
NTFP	Percentage of beneficiaries doing NTFP collection following sustainable methods
Agriculture, Horticulture	Percentage of area under Non chemical pest management methods Percentage of area under micro irrigation methods Percentage of area under use of organic manures
Dairy	Percentage of farmers growing fodder Percentage of farmers implementing • stall feeding • clean sheds • composting the manure
Fishery	Percentage of farmers following the recommended fertilizers and organic manures Percentage of farmers following native species selection, poly culture and recommended stocking density Percentage of farmers following integrated farming
Goatery	Percentage of farmers opting for locally suitable breeds (recommended in State breeding policy) Percentage of farmers growing fodder/fodder trees Percentage of farmers implementing • stall feeding • clean sheds • composting the manure

Commodity/sector	*Sustainability indicators*
Non-farm enterprises and value addition	• Percentage of the enterprises that have obtained the required permissions, licenses etc. • Percentage of enterprises using renewable energy/following energy efficiency and water efficiency • Percentage of enterprises following hygienic practices • Percentage of enterprises using natural/safe/quality/permissible ingredients, raw materials

By the time of the external audit (year 4/5) the minimum area/percentage of activities under sustainable practices in each State in the intervened villages / enterprises should be a minimum of 50%. The SRLMs should be encouraged to meet the criteria detailed in the index and internal monitoring must be done through MIS tracking.

Section –II: Integration of Safeguards into Farm, Non-farm, Skills Interventions.

Sub Section I – Farm Interventions

Annexure I: Integration of Environmental Safeguards into the Producer Enterprise Business Plans (refer to Annexure II and III for compliances and mitigation measures/guidelines)

The key activities proposed in PE Business Plans	**Legal and Regulatory Compliances if any**	**Mitigation Measures/Good Practices/Environmental Guidelines**	**Remarks**

Annexure II: Integration of Environmental Safeguards into the Business Plans of PG under farm interventions.

Compliances:

S. No	**Safeguard Compliances**	**Applicability**		**Present status on compliance**		**Remarks if any (plan, support required etc.)**
		Yes	**No**	**Yes**	**No**	
1	*Agriculture* • Purchase, stock, sale, distribution or exhibition of the following pesticides will not be supported					

S. No	Safeguard Compliances	Applicability		Present status on compliance		Remarks if any (plan, support required etc.)
		Yes	No	Yes	No	
	○ Pesticides classified in Class Ia, Ib and II of WHO classification; • ○ Pesticides banned by the Government of India, ○ Pesticides banned by the State Government. • Purchase, stock, sale, distribution or exhibition of pesticides and chemical fertilizers will not be supported without the requisite licenses.					
2	*Livestock* • Grazing of livestock in forest areas without taking required permission from the Forest Department should not be done. • Grazing of livestock that have not been vaccinated in forest areas is not permitted • Use of antibiotics, hormones etc. for growth promotion or use of substances like oxytocin for easy milking etc. are not permitted • The Artificial Insemination activities promoted by the project should be in complaint with the State breeding policy					
3	*Fisheries* • Fishing in the Government declared prohibited/closed season is not allowed. • Fishing using nets with mesh size smaller than the					

S. No	Safeguard Compliances	Applicability		Present status on compliance		Remarks if any (plan, support required etc.)
		Yes	No	Yes	No	
	permissible size (1 inch in fresh water and half inch in marine fisheries) should not be done. • Fishing using destructive fishing practices (use of poison, explosives, etc.) should not be followed. • Culture of invasive species (e.g., African Catfish, Tilapia) will not be encouraged.					
4	*Non-Timber Forest Produce* • Activities that involve use of forest land for non-forest purposes without the permission of the Forest Department should not be supported wherever such permission is required by law. • Extraction, transport, processing, sale of forest produce including non-timber forest produce without taking required permission from the Forest Department should not be done. Wherever such permission is required by law. • Activities that involve destruction of wildlife or of wildlife habitat will not be supported • Clearing, kindling fire, damaging trees (felling, girdling, lopping, topping, burning and stripping bark), quarrying stone, etc., in reserved and protected forests will not be supported.					

S. No	Safeguard Compliances	Applicability		Present status on compliance		Remarks if any (plan, support required etc.)
		Yes	No	Yes	No	
5	*Infrastructure* • The land record should be available (lease, donation, ownership etc.) • NOC should be obtained from forest depart in forest areas where applicable • The demolition and construction wastes should be disposed in designated area in consultation with local panchayat/municipality. Preferably used for land filling or any other alternate purposes • No trees should be cut for construction. In case if clearance of trees is required re-plantation should be done with same or any other suitable local species. Permissions should be taken for clearance where applicable. • If there is need to create water source (tube well), permission should be taken from ground water department.					

Key Activity in the PG Business Plan	Mitigation Measures/ Environmental Guidelines/ Good practices	Remarks (plan of action, support needed etc.)

Annexure III: Environmental Guidelines/Mitigation Measures/Good Practices for Farm Interventions

Agriculture

Activity	**Possible Environmental Impacts**	**Environment Guidelines / Mitigation Measures / Good practices**
Crop Selection	Selected crop may lead to consumption of more water Selected cropping pattern may lead to nutrient depletion. Traditional and nutritious crops may disappear Encroachment of common lands for crop commercialization.	Selection of crop will be promoted matching with availability of water. Crop should be rotated to ensure that crops with different root zones, different demands on nutrients and different pests and diseases. Prefer traditional crops. Strengthening of Village level organizations to restrict such incidences.
Selection of the variety Seed treatment	Variety may not be suitable to the area or preferred by the farmers. Sowing of untreated seed may lead to pest and disease infestation	Well adapted and high-yielding varieties as suggested for the region by ICAR institutes, KVKs, Agricultural Universities, Agricultural Department etc. with resistance to biotic stresses and improved nutritional quality should be chosen. Or traditional varieties may be chosen. Use of treated seed preferably with botanicals.
Irrigation	Excess use of water for intensive cropping depleting the surface water resource. Lack of information on weather updates may lead to untimely operations, especially irrigation leading to crop loss due to unexpected dry spells or rains.	Use water efficient methods of irrigation like drip especially for horticultural crops. The farmers can be linked with SMS based weather update systems to avoid untimely operations.
Pest Management	Increased use of pesticides in more quantities than desired leading to runoff into water bodies and polluting them and polluting environment, negative effects on health etc.	Restrict to non-chemical methods of pest management. In any case, avoid use of pesticides banned and restricted by World Health Organisation (WHO) and the local laws.
Soil Health & Nutrient Management	Soil degradation due to fertilizer use in more quantities and high uptake of nutrients due to high responding varieties.	Adopt organic manuring practices to the extent possible. Any chemical fertilizer application should preferably be based on soil testing.

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Storage & Handling of Agri-inputs	Poor storage, handling can lead to spills and leaks of fertilizers and pesticides leading to contamination of soil and water Poor storage may lead to pest and disease infestation of seeds	Safety measures are required that in storing agriculture inputs like fertilizer and other chemicals that leads to infect other input. Clean storage areas daily or after each use
Drying	Storage of grains and products like turmeric, ginger etc. needs drying to attain prescribed moisture level to avoid pest and disease infestation which may call for chemical use for management. Drying on open grounds may contaminate the produce with dirt, microbes etc. which will reduce the quality of produce will have an impact on health.	Dry the product to attain prescribed moisture level. Drying on cement platforms, mats etc. will protect the produce from contamination. Use solar dries wherever possible.

<u>Collection, aggregation, handling and transport of agricultural produce</u>

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Sorting and grading	Doing the operations like sorting and grading on unclean surfaces/platforms may contaminate the produce because of pathogen load. Absence of water facility/source may hamper the cleaning process. Produce from field, if not clean may contaminate the other produce. Re use of the crates and sacks may lead to spread of microbial infections.	Sanitation of the grading, packaging facility is very important for avoiding microbial/pathogen contamination. The sorting/grading platforms, containers etc. should be kept clean, washed and allowed dry after every operation or on daily basis. Water facility at the facility becomes important for the cleaning purposes. Bleaching powder can be sprinkled in the premises once in a while. Remove as much dirt and mud from fresh produce before it arrives the facility. Clean and sanitize crates, sacks before using to transport fresh produce, especially ready-to-eat produce like fruits.

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
	The sorting, weighing equipment also can spread infestations on continuous reuse. There is chance of presence of pests in the produce. Pests can spread disease and damage produce. There is also chance of rodents at the facility due to continuous availability of food.	The equipment used in sorting, grading, washing and packing fresh produce should be cleanable. An integrated pest management program should be established to include sanitation and separation of infested produce. The facility should be kept free of rodents, pests etc. use of light traps is recommended at nights. Use fly traps, natural baits etc.
Packaging	Use of unclean bags, crates etc. may lead to contamination and quick spoilage of the produce.	The bags should be kept clean; crates should be washed and dried. Disinfectants can be sprayed if required for high value produce.
Transport	There is chance of hiring/using the trucks that also transport chemical fertilizers, cattle/animals etc. which may lead to contamination of organic produce.	The trucks should be kept clean and make sure the trucks that simultaneously transport chemicals (fertilizers, pesticides etc.) or animals/poultry birds etc. are not used for the purpose. Spray the vehicles with disinfectants if possible.
Separation of damaged/contaminated produce	The waste products separated because of pest, rots etc might encourage breeding of pests, diseases and may contaminate the fresh produce in the facility.	The infested product should be separated and disposed of away from the facility or composted at a safe distance.

Livestock: Dairy

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Grazing, feeding	Continuous open grazing may result in stress on common lands.	Fodder /fodder tree cultivation and stall feeding should be followed to the extent possible.
Housing	Congested spaces and unhygienic conditions due to manure, wastes etc. may lead to disease spread	Sheds should be well ventilated and kept clean. Manure should be composted in pit.
Interventions for improving milk yield	Injecting hormonal substances like oxytocin under misconception that it increases milk yield will have negative impact on animal health and will make the animal go dry early.	Practice of injecting hormones should be strictly avoided.

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Milking	Unhygienic milking practices - milking without washing hands. Not addressing any injuries or disease of the animal will contaminate the milk	Beneficiaries should be trained on hygienic milking practices – clean milk production. Botanical/herbal medicines can be used for injuries.
Disposal of dead animals	The dead bodies of calves or small ruminants that are dead due to epidemics will further spread the infection when disposed openly.	The carcasses should be properly buried or burned, after bio security measures (sprinkling disinfectants like bleaching powder). The personnel also need to disinfect themselves.
Environment Issues and Measures in Bulk Milk Cooling Units		
Cleaning and maintenance of equipment in bulk milk cooling units	The chemical and acids used in cleaning the unit pollute the soil and water when discharged without being treated	Waste water after cleaning should not be released into the gutters leading to agriculture fields, or to the open area nearby. Drying ponds (with cement lining) can be constructed where water can be evaporated and residue can be collected and disposed of safely.

Livestock: Small Ruminants

Activity	Possible Environmental Impacts	Environment guidelines / Mitigation Measures / Good practices
Breed selection	Selection of breeds that cannot adapt to the local climatic conditions will lead to loss of animals or results in low productivity and health issues.	Selection of breeds suitable to local climatic conditions and up gradation with the improved breeds suitable or acclimatized to local climate should be done under technical guidance (with reference to State breeding policy).
Grazing	Continuous over grazing will lead to degradation of grazing lands. In case of sheep as they graze close to the ground surface vegetation is removed exposing the soil for erosion.	Growing fodder trees, regulated grazing and stall feeding (partly or completely) will reduce pressure on grazing lands. Rotational grazing will be followed and pasture land development initiatives will be taken up in convergence with NREGS.
Lopping trees for fodder	Regeneration of the trees will be affected if lopping is done extensively.	Only small twigs should be extracted, fodder trees can be grown in house premises as well.

Activity	Possible Environmental Impacts	Environment guidelines / Mitigation Measures / Good practices
Shed spacing	Congested, less ventilated sheds will lead to quick spread of diseases and affects animal health due to less scope for movement.	The sheds must have sufficient space and well ventilated and offer protection from heat, rain etc.
Stall feeding	Stall feeding with green fodder without chopping may lead to wastage.	Fodder should be properly chopped before feeding.
Disease Management	Spread of contagious diseases	The animals should be vaccinated as per the schedule and herbal remedies can be used where feasible.
Shed cleaning and waste management	Open disposal of shed cleanings and feed waste create unhygienic conditions and leads to loss of manurial value.	Wastes should be composted as pit, or heap covered with leaves and lined with bricks to avoid leaching or evaporation losses.
Measures during drought	Lack of drought management strategy may lead to loss of herds or poor performance.	Management of commons and pasture lands, improved grazing practices like rotational grazing, protection of shrubs and trees. Fodder conservation through community fodder banks. Harvest and use the failed crop as fodder. Management of common pasture lands.
Disposal of dead animals	The dead bodies of calves or small ruminants that are dead due to epidemics will further spread the infection when disposed openly.	The carcasses should be properly buried or burned, after bio security measures (sprinkling disinfectants like bleaching powder). The personnel also need to disinfect themselves.

Piggery

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Breed selection	Selection of breeds that cannot adapt to the local climatic conditions will lead to loss of livestock or results in low productivity and might have health issues.	Selection of suitable species in order to have increased adaptability. Indigenous species should be promoted to the extent possible.
Use of growth promoters	Use of growth promoters for gaining weight may have implications on health	Prohibition of use of hormones for gaining mass, farmers should be made aware of the ill effects.

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Shed construction and maintenance	Congested, less ventilated shed results in disease outbreaks.	Sheds should be well ventilated and spacious enough to provide healthy environment. Sheds should be cleaned every day and the liquid waste should not be let into any water bodies.
Feed and manure management	Over feeding results in wastage. Pig manure could be an environmental hazard when it is not disposed/stored in proper manner (storing it openly)	Recommended dosages of feed to be followed. Feed waste to be collected and disposed properly. The manure should be stored in a lined pit to avoid any leachates and properly covered (to be opened and stirred once in a while allow the heat to escape). Integrated farming practices (with fisheries) should be encouraged so as to promote effective use of feed waste and manure.
Disease outbreaks	Improper disposal of manure, carcasses may result in quick spread of diseases and will lead heavy losses.	An awareness program to farmer on precaution measures that needs to be adopted during epidemic/ spreading of infectious diseases in pig should be made available. Knowledge on the possible diseases that could be transmitted from pig to humans should be provided (with support of Animal Husbandry department, KVKs etc).
Disposal of dead animals	The dead bodies of calves or small ruminants that are dead due to epidemics will further spread the infection when disposed openly.	The carcasses should be properly buried or burned, after bio security measures (sprinkling disinfectants like bleaching powder). The personnel also need to disinfect themselves.

Fisheries

Activity	Possible Environmental Impacts	Environment Guidelines / Mitigation Measures / Good practices
Culture fisheries		
Preparation of the tank	Culturing fish without soil and water testing decreases productivity and may lead to increase inputs, or decline in water quality thus harming environment.	Soil and water testing should be done prior to stocking the fingerlings and the recommended corrective measures to be taken.
Fertilizer application	Excess fertilizer application for high productivity will lead to algal blooms and	Follow the recommended dosage for fertilizer application. Organic and synthetic chemicals should be applied alternatively once in 15 days. Water quality testing should be done for algal bloom, PH etc

<table>
<tr><th>Activity</th><th>Possible Environmental Impacts</th><th>Environment Guidelines / Mitigation Measures / Good practices</th></tr>
<tr><td></td><td>loss of fish due to depleted oxygen.</td><td>. members can be trained and ICAR developed kits can be provided.</td></tr>
<tr><td>Stocking density</td><td>Effective space utilization will not be there if recommended stocking density is not followed.</td><td>Recommended stocking density should be followed:
3000 – 5000 per ha for grass carps and silver carps
4000-5000 per ha for Catla, Rogu and Mrigal</td></tr>
<tr><td>Mono culture</td><td>Monoculture will not ensure effective space utilization and productivity per unit area</td><td>Poly culture of the 2-3 species in recommended ratios will ensure optimum space utilization and production. The recommended ratio is:
<table>
<tr><th>Species</th><th>Density</th></tr>
<tr><td>Catla+ Rohu+ Mrigal</td><td>2:4:4</td></tr>
<tr><td>Silver carp+ Grass carp</td><td>1:1</td></tr>
<tr><td>Catla+ Rohu+ Grass carp+ Mrigal</td><td>4:3: 1.5: 1.5</td></tr>
<tr><td>Silver carp+Grasscarp+Commoncarp+Rohu</td><td>3: 1.5: 2.5: 3</td></tr>
</table></td></tr>
</table>

<table>
<tr><td colspan="3">Capture fisheries</td></tr>
<tr><td>Use of small size nets than permitted.</td><td>Use of small mesh size nets collects eggs and fingerlings of marine life and causes loss to bio diversity</td><td>Use nets with mesh size more than 1 inch in inland fisheries and more than half inch in marine fishing
Release small fingerlings back into the water.</td></tr>
<tr><td>Fishing methods</td><td>Harmful fishing practices (dynamiting, electrocuting, poisoning) harm all aquatic species</td><td>Sustainable methods of fishing in prescribed seasons with prescribed size fish net should be followed.</td></tr>
<tr><td>Fishing season</td><td>Fishing in breeding season of fish results in capture of breeding population and affects future populations of fish</td><td>Fishing should not be done in closed season: July to 31st August for inland fisheries. The seasons may be specific to States in some cases.</td></tr>
<tr><td>Disposal of nets</td><td>Improper disposal of fishing nets made up of nylon results in habitat destruction when disposed in water or shore.</td><td>Reuse the nets for alternate purposes like fencing kitchen garden, etc.</td></tr>
<tr><td>Disposal of extra catch</td><td>Extra catch such as snails, crabs etc. are usually disposed on the shore leading to loss of aquatic diversity</td><td>Extra unwanted catch should be disposed back into the water.</td></tr>
</table>

Use of antibiotics/growth promoters in livestock rearing (piggery, poultry, fishery):

Use of antibiotics as growth promoters (eg: tylosin, quinolone, tetracycline, gentamicin, amantadine) is one of the issues in livestock rearing especially in intensive farming. These antibiotics are used in low doses which are believed to improve the quality of the meat with low fat and high protein content. However, there are ill effects associated with this and one of them is imposing selection pressure for bacterial strains that are resistant to antibiotics (eg: *Escherichia coli, Salmonella spp*). Over time the residues of antibiotics in the meat also affects human health leading to side effects. There are also chances of resistance build up in human pathogens. The project should create awareness among the beneficiaries on the side effects of using antibiotics along with food and water for growth promotion.

Sub Section II – Non -Farm Interventions

Annexure I: Integration of Environmental Guidelines/Mitigations/Good Practices/safeguard compliances into the Enterprise Activity (refer to Annexure II for the guidelines)

Compliances:

S. No	Safeguard Compliances	Applicability		Present status on compliance		Remarks if any (status, action plan, support required etc.)
		Yes	No	Yes	No	
1	Consent from State Pollution Control Board (procedures available on websites of State Pollution Control Boards) for Establishment and Operation of *Red, Orange and Green Category Industries*					
2	License from Food Safety Standards Authority of India (FSSAI) as per The Food Safety and Standards (Food Products Standard and Food Additives) Regulations 2011 is required for food preparation /processing /packaging units. Only permitted food colours should be used.					
3	Non-Use of prohibited azo dyes and colours in weaving and any other activities that involve dyeing. #1					
4	As per Plastics Wastes Rules, 2016 Sale and use of recycled and coloured plastic carry bags less than 50 microns in thickness for single use for wrapping food or packaging is not permitted.					
5	Fire safety precautions (fire extinguisher, emergency exits and					

S. No	Safeguard Compliances	Applicability		Present status on compliance		Remarks if any (status, action plan, support required etc.)
		Yes	No	Yes	No	
	fire alarms) are required at work spaces as per Fire Safety Rules, National Building Code, State Specific Fire safety Acts and Rules, and Disaster Management Acts					
6	Creation of ground water source for use by any enterprise should comply with the State Ground Water Acts and Rules and necessary permissions should be taken					
7	Fertiliser shops require license - Purchase, stock, sale, distribution or exhibition of pesticides and chemical fertilizers will require license as per The Fertilizer (Control) Order, 1985					
8	Collection of any Non Timber Forest Produce (NTFP) or fuel wood etc. from forest areas should comply with State forest Acts/Transit rules and necessary permits should be taken for collection and transport from concerned authorities (District Forest officers -DFOs) except in case of traditional forest dwellers have access as per the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006					
9	Activities that involve destruction of wildlife or of wildlife habitat should not be done under the project (e.g.: clearing, kindling fire, damaging trees *(felling, girdling, lopping, topping, burning, stripping bark and leaves)*, quarrying stone, etc., in reserved and protected forests will not be supported.					
10	In case of use of chemical and minerals in soap, detergent, phenyl making, Registration of unit under					

S. No	Safeguard Compliances	Applicability		Present status on compliance		Remarks if any (status, action plan, support required etc.)
		Yes	No	Yes	No	
	DIC and chemical license and testing for toxic material is required.					
11	Land/building details - Ownership/lease/rental/donation documents should be available.					
12	Hiring of child labor (below 14 years) should be avoided					
13	Fair / equal wages that will be paid to all workers for equal work.					

#1		
Acid Orange 45 22195	Acid Red 4 14710	Developer 14 = Oxidation Base 20 76035
Acid Red 85 22245	Acid Red 5 14905	Direct Yellow 48 23660
Acid Black 29	Acid Red 24 16140	Direct Orange 6 23375
Acid Black 94 30336	Acid Red 26 16150	Direct Orange 7 23380
Azoic Diazo Compo.112 37225	Acid Red 73 27290	Direct Orange 10 23370
Direct Yellow 1 22250	Acid Red 114 23635	Direct Orange 108 29173
Direct Yellow 24 22010	Acid Red 115 27200	Direct Red 2 23500
Direct Orange 1 22370	Acid Red 116 26660	Direct Red 7 24100
Direct Orange 8 22130	Acid Red 128 24125	Direct Red 21 23560
Direct Red 1 22310	Acid Red 148 26665	Direct Red 22 23565
Direct Red 10 22145	Acid Red 150 27190	Direct Red 24 29185
Direct Red 13 22153	Acid Red 158 20530	Direct Red 26 29190
Direct Red 17 22150	Acid Red 167	Direct Red 39 23630
Direct Red 28 22120	Acid Red 264 18133	Direct Red 46 23050
Direct Red 37 22240	Acid Red 265 18129	Direct Red 62 29175
Direct Red 44 22500	Acid Red 420	Direct Red 67 23505
Direct Violet 1 22570	Acid Voilet 12 18075	Direct Red 72 29200
Direct Violet 12 22550	Acid Brown 415	Direct Violet 21 23520
Direct Violet 22 22480	Acid Black 131	Direct Blue 1 24410
Direct Blue 2 22590	Acid Black 132	Direct Blue 3 23705
Direct Blue 6 22610	Acid Black 209	Direct Blue 8 24140
Direct Green 1 30280	Basic Red 111	Direct Blue 9 24155
Direct Green 6 30295	Basic Red 42	Direct Blue 10 24340
Direct Green 8 30315	Basic Brown 4 21010	Direct Blue 14 23850
Direct Green 8:1 --		Direct Blue 15 24400
Direct Brown 1 30045		Direct Blue 22 24280
Direct Brown 1:2 30110		Direct Blue 25 23790
Direct Brown 2 22311		Direct Blue 35 24145
Direct Brown 6 30140		Direct Blue 53 23860
Direct Brown 25 36030		Direct Blue 76 24411
Direct Brown 27 31725		Direct Blue 151 24175
Direct Brown 31 35660		Direct Blue 160 --
Direct Brown 33 35520		Direct Blue 173 --
Direct Brown 51 31710		Direct Blue 192 -
Direct Brown 59 22345		Direct Blue 201
Direct Brown 79 30056		Direct Blue 215 24115
Direct Brown 95 30145		

Direct Brown 101 31740 Direct Brown 154 30120 Direct Black 4 30245 Direct Black 29 22580 Direct Black 38 30235		Direct Blue 295 23820 Direct Green 85 30387 Direct Blue 222 30368 Direct Black 91 30400 Direct Black 154 - Disperse Yellow 7 26090 Disperse Yellow 23 26070 Disperse Yellow 56 Disperse Orange 149 Disperse Red 151 26130

Annexure II: Environmental Guidelines/Mitigation Measures/Good Practices for Non-Farm Enterprises

Food and food product preparation (including catering, canteens, snacks, sweets, pickles, spice mixes, bakery, papad, etc.)

Activity /Steps	**Possible Environmental Impacts**	**Environmental Guidelines/Mitigation measures/Good Practices**
Registration and licenses	Manufacturing and selling of food products need license depending on the scale of activity.	License should be acquired as per Food Safety and Standards Act (FSSAI) 2011 if required.
Drying the raw materials, products (e.g.: papads, grains)	Drying on unclean floors/surfaces will contaminate the produce by inducing microbial growth.	Clean and dry cement floor or mats should be used for drying. Solar dryers can be used depending on feasibility.
Use of machinery (for grinding ginger, masala and ingredients for pickle)	Use of unclean machinery for grinding raw materials may contaminate food.	Machinery (small mills and grinders) used for grinding ingredients should be cleaned and dried regularly.
Use of cook stoves (in snacks, sweet and milk products)	Use of LPG or fuel wood will lead to degradation of the resource and increase the fuel costs	Fuel efficient cook stoves or bio gas/solar energy can be considered.
Use of preservatives, colour and flavour agents	Use of synthetic agents may have adverse effects.	Natural agents and permitted agents should only be used. Details of permitted agents is provided in compliance requirements
Handling and packing	Handling the food products with bare hands or un washed hands will contaminate the products through microbial growth.	Personnel involved in processing, packing etc. should wash hands with soap before and after work and use aprons, gloves, hair caps for handling, packing etc. Use of eye goggles and nose masks is recommended while handling pungent items like spices.
Packing and labeling Use of plastic	Edible products beyond the shelf life may lead to illness when consumed. Use on non-recyclable plastic leads to issues in disposal	The product labelling should include the expiry date and should be marked with in the shelf life period. Use the plastic above 50 microns for packaging.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Storage of raw materials and finished products	Storage in improper conditions like moist, dusty floor, walls etc. will spoil the produce due to mold infestation.	Raw materials and finished products should be stored in clean and dry conditions.
Facilities at processing centre	Poor facilities will have impact on worker's health	The place should be well ventilated, should have drinking water and sanitation facilities. Kitchens should be equipped with exhaust fans.
Waste management	Open disposal of waste from food processing unit will give bad odour and create unhygienic environment due to decomposition.	Any waste or waste water should be disposed properly by composting or diverting to waste water drains.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor Health and hygiene	Hiring of child labor Workers with health issues (chronic, temporary)	Do not hire children below 14 years of age. The workers involved in food processing should be free from infectious diseases and should be refrained from work when ill.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Land/building details	Absence of documentation may result in disputes	Ownership/lease/rental/donation documents should be available.
Green Interventions: • Use of renewable energy (solar, biomass) • Use of organic raw materials		

<u>Oil Extractions: groundnut, coconut etc.</u>

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Registration and licenses	Manufacturing and selling of food products need license depending on the scale of activity.	License should be acquired as per Food Safety and Standards Act (FSSAI) 2011 if required.
Selection of raw materials	Pest or mold infested oil grains might contaminate the whole lot/batch of produce.	Screen the raw materials for infested grains with pest, aflotoxins etc. and separate. Dry the grains/seeds before processing, if needed to maintain appropriate moisture level.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Use of machine for grinding	Machinery handling should be clean and dry.	Machinery should be cleaned and maintained well. Care should be taken while handling machinery to avoid injuries.
Handling and packing	Handling the raw material and oil with bare hands or un washed hands will contaminate the products through microbial attack.	Personnel involved in processing, packing etc. should clean hands before and after work and use aprons, gloves, hair caps for handling, packing etc.
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor Health and hygiene	Hiring of child labor Workers with health issues (chronic, temporary)	Do not hire children below 14 years of age. The workers involved in food processing should be free from infectious diseases and should be refrained from work when ill.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Land/building details	Absence of documentation may result in disputes	Ownership/lease/rental/donation documents should be available.
Green Interventions: • Use of renewable energy (solar, biomass) • Use of organic raw materials		

Muri Production

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Use of conventional ovens	Use of inefficient conventional ovens and hazardous conventional fuels results in environmental and indoor air pollution (due to carbon monoxide, particulate matter) leading to respiratory illnesses.	Use energy efficient ovens/furnaces and clean fuels to avoid long term health hazards to the workers involved and people living in surrounding area.
Working conditions	Cramped space, low ventilation, exposure to heat and particulate matter etc. causes health hazards	Provide better work spaces, well ventilated spaces.
Child labor	Hiring of child labor	Do not hire children below 14 years of age.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Green Interventions: • Use of renewable energy (solar, biomass) • Use of organic raw materials		

Rice, dal and flour mills

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures /Good Practices
Storage	Fumigation of storage go-downs and storage spaces with Methyl bromide and phosphine in order to control store product pests may cause damage to human health.	Clean rice/dal barn, warehouse or storehouse before storing the produce. The regular cleaning of the storage is recommended. Spray plant extract, such as Bitter bush or Siam weed (*Eupatorium odoratum* L.) to kill insects on the floor, wall and vacant space in the storage. Mix seeds with plant extracts such as Neem (*Azadirachta indica* A.), dried Long pepper flower (*Piper longum*) and Sweet flag (*Acorus calamus* L.) Fumigate the storage structures with carbon dioxide gas.
Transportation	Contamination is possible during package and transport.	Containers and sacks used for packing, as well as vehicle for transporting organic rice/dal/flour, should be clean and free from any contamination of chemical substances and other rice. It is not recommended to use vehicle that has been loaded with soil, animals, manures, fertilizers or chemicals that may cause contamination of pathogenic and toxic substances, unless such vehicle has been properly cleaned before use. Separate Carrier or vehicle should be allotted to handle organic grains. Organic rice shall not be comingled with non-organic commodity and other prohibited materials or substances for organic agriculture during transportation from production site to distribution center.
Milling	Water used for soaking the paddy, especially for parboiled rice production, if not prop	Good and adequately maintained drainage to facilitate run-off and minimize the likelihood of flooding

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures /Good Practices
	erly treated could result in water pollution and odour nuisance to local community.	. Regular inspection of bulk storage tanks to minimize the risk of surface water pollution. Installation of interceptor traps for solids, oil and fuel to reduce the control release of contaminated water via the surface drains. Separation of milling areas from all other areas of operation. Water proofing of mill floor and all other floors.
	Air pollution both on site and in the surrounding locality due to release of dust to the atmosphere from handling or processing of the paddy or its by-products is a major environmental concern for rice mills.	Adequate ventilation should be provided to prevent dust pollution and reduce heat. Prevention of dusts on machinery and in the building by timely cleaning operations. Design of chimney and vents of sufficient height and appropriate technology to avoid causing local nuisance of dust and smoke emissions. Walls should be designed in a way to prevent accumulation of dust and entry of rodents, birds, or pests.
Energy usage (paddy)	Different operations in paddy processing require considerable energy for parboiling, mechanical drying and milling.	Hulling of rice before parboiling process is also a possible option to reduce energy consumption for rice parboiling. It would save 40% of energy however this process is susceptible to contamination if the processing equipment is not as per food grade quality and it needs shade drying Instead of open floor drying under sunshine as in traditional practices.
Waste management (paddy)	Disposal of solid wastes, particularly unused rice husk occupies space and creates inconvenience.	Paddy husk can be reused as fuel for paddy drying, to run steam generator or gassifier. Charcoal briquetting units can be set up which use paddy husk as raw material. The dal chaff can be sent for alternate use like cattle feed.
	Effluent produced during cleaning of equipment will pose a problem to surrounding environment.	Treatment of effluent and wastewater before release as per the standards of Pollution Control Board.
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Health and hygiene	Workers with health issues (chronic, temporary)	The workers involved in food commodities should be free from infectious diseases and should be refrained from work when ill.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Green Interventions: • Use of renewable energy (solar, biomass)		

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures /Good Practices
• Use of organic raw materials		

Cashew processing

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Drying / Roasting	The traditional practice in south India is to spread the nuts out on flat rocks in the sun, so as to allow them to dry until the shell becomes brittle. The kernel could then be removed from the shell by striking the nut with a wooden batten to split the shell along the natural line of cleavage. Open roasting: The roasting is done in an open circular mild steel dish, measuring 600 to 675 mm (2 to 2.5 feet) in diameter, supported over an open fire. Between 1 and 1.5 kg of raw nuts are placed on to the heated pan at a time. The nuts are heated on the pan, with constant stirring, in order to prevent burning. As the nuts heat up, the Cashew Nut Shell Liquid (CNSL) is exuded onto the pan and eventually ignites, producing clouds of thick black smoke. After heating and burning for about two minutes (judged by experience) the pan is dowsed in water and the nuts are thrown off and allowed to cool, during which the shells become brittle and can be readily removed from the nut. Drum roasting: In this process the nuts (without any conditioning) are fed into a rotating drum, which is heated initially to red hot sufficiently to allow the shell portion of the nut to ignite and burn. Once ignition starts no further heating is necessary and the drum maintains the temperature on its own because of the burning of oil, which oozes out of the nuts. The shell becomes very brittle. The roasting generally takes about 3-5 minutes and the drum is rotated by hand. The roasted nuts, which are still burning are removed from the discharge end and immediately covered by ash to absorb the oil that is found on the surface. Kernels obtained in this process have a better color than in the other processes.	Rotating the drum with bare hands might cause burns, and shelling might cause injury to hands. Power drove can be fitted for rotating the drum. Inhaling the smoke is harmful for the health, precautions to be taken like using masks.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Shelling	Steam Roasting: In this method, the raw cashew nuts are treated in a cooker filled with steam at 100-110 Kg/Cm2 for about 15 minutes. The treated raw nuts are spread out on the floor for cooling and then sent to the shelling section the next day. The turnout and appearance of whole kernels from raw nuts treated in this method are said to be better than in any other method. The cashew nut shell liquid (CNSL) obtained in this method from the shells is very clear and command a premium price. About 75% of the CNSL can be extracted from the shells. Shelling is the removal of dry roasted shell. By striking the head of the nut, the natural line of cleavage is broken. It is important when shelling the nut that the kernal is not broken as whole nuts command a higher price in the market. This operation is done manually mostly by skilled women. Wood ash is applied to the hands to prevent damage to the hands and kernel.	No environmental issues in this method. Precautions to avoid injuries and keeping first aid kit available. It is advised to wear gloves as a preventive measure depending on convenience.
Storage	Organo halogen taint gives off flavor to cashew nuts if not stored and transported properly. This usually happened due to chemicals, fertilsiers or irrigation water with high chlorine.	Drying yards should not be cleaned with halogen containing cleaning agents (such a bleaching powder etc.). Farmers should be advised properly on the standard storage practices for nuts and the dangers of using halogen based chemicals and fertilizers. The separated nuts are dried for 2-3 days to bring the moisture content down to 8 % and stored in tins or gunny bags. Should be stored only in jute bags which are not treated chemically. Avoid plastic bags. Chemicals / pesticides / weedicides / fertilizers should not be stored along with raw nuts.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
		Vehicles used for transport for chemicals should not be used for transport of nuts. The vehicle should be cleaned and dried before transport
Waste management	From cashew apple drinks can be made (non-alcoholic). Jam, chutney and pickles are also prepared. The left-over pulp is disposed openly leading breeding of flies etc.	The left over fruit pulp should be composted.
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor Health and hygiene	Hiring of child labor Workers with health issues (chronic, temporary)	Do not hire children below 14 years of age. The workers involved in food processing should be free from infectious diseases and should be refrained from work when ill.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Green Interventions: • Use of renewable energy (solar, biomass) • Use of organic raw materials		

Cow-dung and organic compost production

Activity/Steps	Possible Environmental Impacts	Mitigations/Guidelines/Good practices
Storage, mixing of ingredients	Uncovered, open heaps might attract and encourage mosquito breeding	The raw materials should be stored with covers. Use bleaching powder for dis-infection of premises frequently.

Chemical and mineral products (detergents, soaps, phenols etc.)

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Registration and licenses	Manufacturing and selling of chemical products without registration and license is illegal.	Registration of unit under DIC and chemical license and testing for toxic material is required.
Raw material	Poor quality raw material lead to burning of hands, breathing problems etc. during preparation and end use of the product.	Authentic source of raw material and suppliers and training on proportion of raw material to be mixed up can be given so that entrepreneurs will

		come to know the possible acid base reactions. Hand gloves, nose masks and goggles should be used while handling the raw materials or finished products.
Preparation (handling raw material in chalk piece, detergents etc.)	Inhalation of dust and handling the chemical and mineral based raw material for long time may be detrimental for health.	Hand gloves, nose masks and goggles should be used.
Detergent use	Due to varied quantity of raw material, clothes generally lose their actual colour.	Before packaging it can be ensured through proper testing and possible effects on fabrics.
Storage of ingredients	Improper storage of ingredients will pollute the air and cause health risks to the workers.	Air tight containers should be used for storage and storage should be as per the guidelines.
Energy consumption	Preparation and packing require lot of energy consumption so permanent source of energy is needed	Green energy sources can be promoted.
Packaging	Use of un decomposable packaging material further cause the soil pollution	Bio degraded able ingredients and re-useable packaging should be promoted
Detergents		
Use of raw materials	Non-essential detergent ingredients like perfumes, colour brighteners leave toxic residues after use	Avoiding these ingredients will make the detergent more environment friendly
Surfactants	Synthetic surfactants like Alkyl benzene Sulfonates, diethanolamines etc. are slow to degrade and residues are highly toxic and carcinogenic. Causes skin and eye irritations.	Synthetic surfactants may be replaced by non-petrochemical surfactants or vegetable oil soaps.
Builder material	The builder material in detergent ‘phosphate’ when released into water after detergent use leads to eutrophication of water bodies affecting water quality and aquatic biodiversity	Builders like phosphates can be replaced by sodium citrate and sodium bicarbonate.
Optical brightners and artificial fragrances	Optical brightners like Chlorine and sodium hypochlorite causes skin and eye irritation and are dangerous to aquatic life.	Optical brighteners and perfumes can be avoided are their function is not very important in cleaning.
Storage of raw materials	The chemicals tend to react when not stored in prescribed conditions.	The chemicals should be stored in proper conditions
Mixing the raw materials in detergent making	The chemicals are harmful to skin and causes irrigation on contact with skin.	Gloves and nose masks should be used while mixing the chemicals to prepare detergent.

Waste disposal	Wastage during mixing and washing after work leaves residues in the surrounding accumulated in soil and water.	Utmost care should be taken to avoid wastage or spillage while mixing, so that there is less waste to clean.
Packing	Package in small sachets needs more plastic	Package in larger sachets to the extent possible.
Labeling	The product may be considered as safe and precautions not taken if not labeled properly.	According to the labeling requirements laid down by BIS, each packet of detergent powder should carry information on the name/grade of the material used, the source of manufacture, and a caution statement which reads: Detergent solutions can be skin irritants. Avoid prolonged contact. Rinse garments and hands thoroughly. The label should also carry information about the critical ingredients used in the formulations.
Phenyle		
Storage of raw materials	Improperly stored raw materials leads to low quality products or contaminate the environment leading to health hazards.	The raw materials should be stored properly according prescribed standards.
Mixing raw materials	Handling with bare hands lead to skin irrigations and inhalation on long term to respiratory issues.	Gloves and masks should be used while mixing ingredients.
Waste disposal	Wastage and disposal of wastes lead to residues in soil and water.	Wastage should be avoided and any waste should be cleaned regularly.
Preparation of ingredients	In cases where ingredients are also prepared, accidents are possible while mixing oils (castor oil, pine oil) and caustic soda and boiling.	Care should be taken to avoid any fore accidents.
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Land/building details	Absence of documentation may result in disputes	Ownership/lease/rental/donation documents should be available.
Green Interventions: • Use of natural ingredients		

- Use of solar energy

Textiles, artisans and handicrafts

Products: Textiles, handlooms, tie&dye, handicrafts, carpet weaving, jute bags, embroidery, leather products, basket making, paper plates, paper products, toys.

Activity /steps	**Possible Environmental Impacts**	**Environmental Guidelines/Mitigation measures/Good Practices**
Work space	Poor facilities will have impact on worker's health.	The work space should be well ventilated, provided with drinking water and toilet facilities.
Use of machinery and tools	Use of machines and tools may lead to injuries at times.	Members should be aware of safety precautions during use of machines and tools. First aid kit should be kept handy.
Energy use	Use of electricity in stitching, paper cup and plate manufacturing units is associated with carbon emission.	Possibility of solar energy run based machinery can be explored.
Use of dyes (textiles, handicrafts, handlooms)	Handling chemical dyes leads to skin and respiratory related problems.	Natural dyes must be preferred over chemical dyes. Gloves and masks should be be used for handling dyes. Wastes should be disposed off safely. The workers should wash their hands properly with soap after dyeing.
Worker health, occupational hazards	Continuous operations of sewing machines, looms etc. will result in health issues (eye sight problems, back pains etc.) in long run	Frequent health check-ups need to be organized in clusters and taking small breaks and exercises can be followed. Workers should be aware of safety precautions during use of machines and tools. First aid kit should be kept handy.
Waste disposal	Open disposal of waste like cloth rags, leather etc. from textiles, dyes, handicraft and foot wear units will create unpleasant sight.	The waste should be sold for reuse, put to alternate use or disposed properly.
Facilities at work station	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work

Activity /steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Land/building details	Absence of documentation may result in disputes	Ownership/lease/rental/donation documents should be available.
Green Interventions: • Use of natural dyes, colors • Use of LED lighting, solar energy is applicable		

<u>Garments and stitching related activities</u>

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Registration, licenses and permissions	Manufacturing and selling of garments / stitched garments which involve engagement of child labour; children at risk – street children; youth;	As per scale of operations; registration of unit under DIC is required. Local Gram Panchayat / Municipality to be intimated about operations. Follow Labour Act and Rules; Follow Shops and Commercial Establishment Acts (1961); Follow Licenses/Registration under the Factories Act, 1948, Proper payments; salaries; PFs; bank accounts; insurance; holidays; pay rolls; entitlements etc. to be maintained of workers.
Storage of raw materials and finished stitched products. Risk reduction – workers and machinery	Improper storage of raw materials i.e. in moist, humid unclean, unventilated conditions leads to spoilage of the garment/ raw materials. Poses health risks to the workers. Garment materials – especially polyester materials are at risk of fire hazards when not stored / handled in required manner. Non-insurance of worker lives and unit/ machinery may trigger sever financial stress during emergency scenarios. Hence insurance required.	Raw materials should be properly stored in containers with lids in clean and dry place (prescribed standards are to be followed for each material). Finished products should be properly labeled with manufacture and stored in clean and dry place. Keep fire safety equipments handy and have emergency exit and fire handling operation procedures / drills periodically. Insure all machinery, materials and workers against natural hazards or other emergency situations like fire etc. Workers to have bank accounts and insurance.
Production and worker health / working space.	Machinery sed in the production process must be kept clean and maintained periodically.	The machinery should be kept clean and the workers should follow the prescribed standards of hygiene such as bathing,

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
	Electrical wiring should be done properly in a risk proof manner. Seating arrangements and working conditions should be such that there is no noise pollution and comfortable / appropriate seating arrangements.	hand washing, using gloves, masks and hair caps etc. Introduce appropriate exercises to counter stress related issues – e.g. long working hours in sitting or standing position; prevention of back ache; chronic pain due to faulty posture; working posture. Introduce stress relieving exercises for better health and productivity. Use face masks to prevent inhalation of fine thread pieces and dust. Introduce noise reducing equipments / gadgets.
Energy use	Energy is required for running the machines; ironing; heating, ventilation-fan.	Solar energy may be used and power saving mode / good practices in energy conservation adopted. Install solar panels and LED lighting to reduce dependency on non-renewable energy. Premises may be designed for sufficient ventilation. Roofing material and walls may be such that it does not lead to excessive thermal heat and humid working conditions.
Waste disposal	Rags and cut cloth pieces during garment stitching may be collected and re-used / sold.	Rags and cut cloths pieces during production may be re-sold or re-used to make specific cloths, mops, door mats etc.
Workers safety Fire safety	Lack of proper facilities to workers may result in health issues. Lack of proper facilities at work place (drinking water, toilet etc.) may cause inconvenience to workers.	Decent working condition should be provided. Fire safety measure should be present at the work stations.
Possibility of using child labour	There is a risk of hiring child labour	Engagement of children below 14 years will be avoided
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Women Participation	Exclusion of women workers	Increase the participation of women, especially those from the poor families; strengthen women in decision making
Including disabled beneficiaries	Exclusion of disabled beneficiaries	Enabling the possibility of involving disabled beneficiaries wherever they can.
Green Interventions: • Use of solar energy, LED lighting		

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
• Re-use of cloth wastes for door mats, mops etc.		

<u>Candle making and bangle making</u>

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
<u>Candle making:</u> Fuel use, heating	Wax over heated above 150^0 gives dangerous fumes and hence fuel source is important. Conventional stoves require high quantities of fuel and cause air pollution. Handling hot wax may lead to accidental spill and cause boils.	Avoid overheating, and use efficient fuel. Wax should not be allowed to spill into flame as it leads to fire hazard. This can be avoided by using water jacket (a vessel with water around the wax container while heating). Use fuel efficient, smoke less cook stoves. Cotton gloves or similar preventive measures should be used while handling wax in candle making.
<u>Bangle making:</u> Work space	Congested work spaces will have an impact on health in long run due to inhalation of smoke and exposure to heat.	The work space should be well ventilated.
Fuel use, heating (traditional method).	Conventional stoves require high quantities of fuel and cause air pollution to the workers.	Use fuel efficient, smoke less cook stoves. Motorised machine can be used for making bangles, wherever viable
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Land/building details	Absence of documentation may result in disputes	Ownership/lease/rental/donation documents should be available.

<u>Agarbathi and coir rope making</u>

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Work space	Congested work spaces will have an impact on health in long run due to inhalation of charcoal dust in	The work space should be well ventilated and should have basic facilities like drinking water, toilets etc.

	agarbathi and coir dust in coir making units.	
Agarbathi rolling and coir extraction, processing	Inhalation of charcoal dust and handling gigat and charcoal with bare hands will have impact on health. Inhalation of coir dust leads to respiratory disorders	Nose masks and hand gloves should be used while rolling agarbathis and processing coir.
Facilities at processing centre	Poor facilities will have impact on worker's health.	The place should be well ventilated, should have drinking water and sanitation facilities.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers, first aid kit and mention emergency numbers
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Green Interventions: • Use of coir dust for coir blocks, geo textiles etc.		

Bamboo products, brooms, mats

Activity /Steps	**Possible Environmental Impacts**	**Environmental Guidelines/Mitigation measures/Good Practices**
Bamboo, broom grass extraction	Over-extraction of forest produce that is raw material for agarbatti production	If local bamboo resources are used sustainable extraction methods should be followed. Social forestry should be encouraged that focuses on improving the raw material availability for the agarbatti industry will ease pressure on natural sources
Work space	Poor facilities will have impact on worker's health.	The work space should be well ventilated, provided with drinking water and toilet facilities.
Use of machinery and tools	Use of machines and tools may lead to injuries at times.	Members should be aware of safety precautions during use of machines and tools. First aid kit should be kept handy.
Use of dyes	Handling chemical dyes leads to skin and respiratory related problems.	Natural dyes must be preferred over chemical dyes. Gloves and masks should be be used for handling dyes. Wastes should be disposed off safely. The workers should wash their hands properly with soap after dyeing.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Worker health, occupational hazards	Continuous operations of sewing machines, looms etc. will result in health issues (eye sight problems, back pains etc.) in long run	Frequent health check-ups need to be organized in clusters and taking small breaks and exercises can be followed. Workers should be aware of safety precautions during use of machines and tools.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers and mention emergency numbers
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Land/building details	Absence of documentation may result in disputes	Ownership/lease/rental/donation documents should be available.
Green Interventions: • Use of natural dyes, colors • Re-plantation of bamboo, broom grass etc. in common lands		

Non Timber Forest Produce

Activity / steps in the process	Possible Environmental Impacts	Environment guidelines / Mitigation Measures / Good practices
Permissions for collection of NTFP, or cultivation near forest areas	Issues regarding use of forest land, ownership rights, regulations from forest departments.	Required permission should be taken from Forest Department (differs from produce to produce) for collection and cultivation near forest areas (wherever applicable)
Harvesting of NTFP	NTFP are precious resources and unsustainable harvesting lead to loss of biodiversity.	Training on sustainable harvesting will check the loss of biodiversity. • For seed and pod collection, pods should be allowed to ripen on the tree until the outer shell is dry and can be separated from the pulp easily • Pods should be harvested by shaking the branches or climbing the tree or using sickles. They should not be beaten down with sticks as this injures the blossoms and buds of future leaves • All the pods/seeds should not be harvested, at least 25% should be left for natural regeneration

Activity / steps in the process	Possible Environmental Impacts	Environment guidelines / Mitigation Measures / Good practices
Method of Collection of Raw material.	Destructive methods of collection such as cutting the branches, uprooting the plants, etc. damages the resource. Unscientific methods of collection may affect the quality of product there by leading to less revenue and thus over exploitation. Each forest product has some prescribed norms for collection.	Collection period and season of harvesting and tools used for collection should be as per standards prescribed. Trainings on these will help the communities to follow sustainable harvesting methods.
Processing of forest produce, preparation of herbal products.	Improper drying (drying on bare earth) and storage may contaminate the produce. Processing using machinery for grinding, mixing, boiling etc. may lead to injuries. Energy use in boiling, drying etc. will required fuel wood. Sometimes due to lack of knowledge on mixing of different ingredient led to health issues. Wastes from processing should not be let into open.	Drying of produce should be done on cemented platform. Care to be taken while processing using machinery to avoid injuries and members to be trained on use of machinery. Energy efficient devices should be promoted. The members should be trained in preparation and use (to offer guidance to retailers or consumers). Date of processing and use and precautions of final products should be mentioned on the packets. Waste disposal should be as per the prescribed methods.

<u>Cement product making</u>

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Storage, handling and mixing of raw materials	Uncovered storage might lead to dust pollution.	The raw materials should be stored properly covered. The workers should wear rubber gloves, masks while mixing, molding etc. Dust can be sprinkled for controlling dust.
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Green Interventions:		

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
• Use of fly ash in manufacture, promotion of cement blocks		

Chicken, mutton shops

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Cleaning, cutting and vending	The materials like manure, blood, feathers, gut contents etc. can create unhygienic environment if done in premises. Presence of flies in the premises.	Do the process in separate, distant location if possible and clean the premises with disinfectants. The unwanted material wastes should be burnt or buried in pits, but not to be disposed openly or in water bodies. Use fly traps to control flies.
Child labor Health and hygiene	Hiring of child labor Workers with health issues (chronic, temporary)	Do not hire children below 14 years of age. The workers involved in processing and vending should be free from infectious diseases and should be refrained from work when ill.

Black smith, welding, carpenter

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Worker health, occupational hazards	Balcksmith, welding: Continuous exposure to flame without protective gear may lead to dis-comfort, unwanted events. Carpentry: Use of tools at times may lead to accidents. Exposure to dust may lead to respiratory issues in long run.	Appropriate protective wear like face shields, goggles etc. should be used by blacksmiths and welders. First aid box should be kept available. Nose masks should be use.
Fire safety, accidents	Possibility of fire and other accidents	Provide fire extinguishers and mention emergency numbers
Child labor Health and hygiene	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work

Painter

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Worker health, occupational hazards	Exposure to chemicals may lead to health issues in long run.	Appropriate protective wear like face masks, gloves, goggles etc. should be used.

Child labor	Hiring of child labor	Do not hire children below 14 years of age.

Beauty Salon

Activity /Steps	**Possible Environmental Impacts**	**Environmental Guidelines/Mitigation measures/Good Practices**
Registrations	Operating without permits is illegal (where applicable)	All units should be registered with local councils where applicable
Surfaces	Unclean, slippery surfaces may result in unwanted impacts	All the surfaces should be non-slippery and easy to clean
Building, ventilation etc. , other facilities	Absence of light, ventilation might lead to inefficiency Absence of hand wash facilities	Adequate light and ventilation should be provided. Hand wash facilities, hand dryers etc. are recommended.
Reuse of tools and equipment Gloves, aprons	Non-sanitized/non-dis infected tools may spread infections, skin diseases etc. Re-use of unclean gloves, aprons might spread infections	All the equipment, tools etc, should be sanitized/dis-infected/sterilized after every use for maintaining hygiene standards. Disposable gloves are preferable. Aprons should be kept clean. Keep first aid kit handy.
Use of products	Possibility of use of unsafe products resulting in harmful reactions	Only certified products within the expiry date should be used
Waste	Dis-infected waste may result in disease spread. Use of common bins for all types of wastes	The wastes should be dis-infected as applicable, before disposals. Separate bins for infectious and non-infectious materials are preferable.
Hygiene standards of workers	Absence of standards	Hand wash, disinfection and use of clean aprons, gloves for every users is necessary.
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Green Interventions: • Use of LED lights, solar lamps etc.		

Bore well digging

Activity /Steps	**Possible Environmental Impacts**	**Environmental Guidelines/Mitigation measures/Good Practices**

Necessary permits to dig bore wells	Digging bore wells without permission and technical expertise is illegal and may result in failures. Sites close to septic tanks (in case of use for domestic purpose) may contaminate water. Presence of air gaps, boulders etc.	The availability of permits needs to be verified before taking up the drilling. The point, depth etc. should be decided based on scientific methods but not on traditional methods. The sites should preferably away from storage or septic tanks so as to avoid contamination. In case of drinking water, quality check should be done. Do complete camera scan to avoid air gaps, boulders etc.
Covering the bore well pits	Uncovered bore well holes (in case of failures) may leads to accidents such as children falling into the pits	Provide complete cover to the failed bore holes.
Child labor Health and hygiene	Hiring of child labor	Do not hire children below 14 years of age.
Green Interventions: • Promotion of recharge structures, advocacy for solar water pumping		

Kirana/grocery stores, petty shops

Activity /Steps	**Possible Environmental Impacts**	**Environmental Guidelines/Mitigation measures/Good Practices**
Shop/ mart structure	Poor ventilation, possibility of moisture seepage etc. will favor the pest and mold growth.	The marts should be well ventilated, moisture proof.
Storage of provisions	The large scale storage of provisions attracts pests and offers scope for fast multiplication necessitating the chemical use for pest control which may contaminate the products posing health risks. Contact with moisture will lead to fungal growth, off flavors etc. Consumable items when stored with products of chemical nature may contaminate the product or give unfavorable odors.	The provisions should be stored in air tight packed conditions to the extent possible and should be placed on a cement or wooden platform. Natural precautions like adding neem leaves, spraying the container and floor with neem seed kernel extract etc. should be followed. Consumable items should not be stored with goods of chemical nature such as mosquito coils, pest repellent liquids or tobacco products. The unpacked ready to consume items should be stored in clean containers with lids.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
	Flammable, toxic products (mosquito killers) can lead to unwanted impacts	Flammable, toxic products should be stored separately.
Product durability, labeling	Out dated products or products that are stored for long time will lead to health issues when consumed.	Each product packed and sold by the shops should have mention of expiry date. Any pest or mold infested or outdated products should be cleared and disposed safely on regular basis.
Package material	Use of plastic bags under thickness of 50 microns is not allowed for packaging due to their non recyclable nature and potential negative impact on environment.	Use news paper wrapping or cloth bags for supplying the provision to the consumer. Encourage the consumers to bring cloth bags.
Adoption of environment guidelines	Lack of awareness may lead to non adoption of the guidelines	Awareness and training programmes need to be organized for community and involved stakeholders from the village.
Green Interventions: • Use of cloth, paper bags for packaging • Use of solar lamps, LED bulbs • Sale of organic products		

Pottery

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Collection of soil, fuel wood, water (raw materials)	Collection of soil from fertile agricultural lands affects soil fertility. Collection from streams etc. where it is prohibited is not permitted. Fuel wood collection from forests or by cutting certain tree species that are protected is illegal. Water from drinking water sources may cause shortage.	Soil/silt from tank beds or water bodies can be collected after testing for suitability. Fuel wood should be purchased from authentic vendors or permitted tree felling should be followed with due permissions. Water should be collected from non-drinking sources.
Location of the kiln	The kilns close to the residences may cause inconvenience due to pollution and might lead to fire accidents.	The kilns should be located away from the residential areas. Energy efficient kilns should be use for efficient use of fuel wood and reduction of emissions.
Waste disposal	The wastes such as ash, broken pieces etc. may lead to discomfort if disposed close to residences.	Use ash, broken pieces etc. for alternate purposes like land filling. Ash can be used in agricultural fields.

Activity /Steps	Possible Environmental Impacts	Environmental Guidelines/Mitigation measures/Good Practices
Worker health, occupational hazards	Continuous working on the wheel may lead to health issues like back pains and exposure to dust may lead to respiratory issues in long run.	Intermittent breaks should be taken and masks can be used to avoid smoke and dust pollution.
Fire safety, accidents	Possibility of fire and other accidents	Keep available some fire extinguishers (sand buckets, water etc.)
Child labor	Hiring of child labor	Do not hire children below 14 years of age.
Fair and equal wages	Possibility of discrimination in the wages	Fair / equal wages that will be paid to all workers for equal work
Green Interventions: • Use of energy efficient, improved pottery kilns		

Annexure IV: Format for Inclusion of Environmental Safeguards into scoping studies by SRLMs and DSR by TSAs (Indicative format, can be changed as necessary)

S. No	Type of Activity Identified	Applicable Compliances	Mitigations/good practices	Plan of Action (training, monitoring, handholding etc.)

[1] In cases where certain measures are not applicable the points are counted as the measures followed (or) the observed measures and good practices should weigh 70% of the applicable measures and practices