# ENVIRONMENTAL MONITORING & COMPLIANCE PROCESS – UPAGREES

Environmental safeguards are essential for achieving sustainable development in the current scenario. Monitoring and managing environmental issues are therefore a critical process for all natural resource conservation initiatives, including agricultural development projects.

Although the UPAGREES project is designed in such a way that it is not expected to cause significant negative environmental impacts, it is still necessary to follow all prescribed environmental guidelines and monitoring procedures. This ensures that project activities remain environmentally responsible and aligned with the principles of sustainable development.

Therefore, an Environmental and Social Safeguards Monitoring Toolkit has been developed to systematically monitor, manage, and document environmental aspects of the UPAGREES project. The toolkit provides a structured framework for screening project activities, assessing potential environmental risks, implementing mitigation measures, and monitoring environmental outcomes throughout the project cycle.

This system ensures compliance with project guidelines and promotes environmentally sustainable agricultural practices under the UPAGREES initiative.
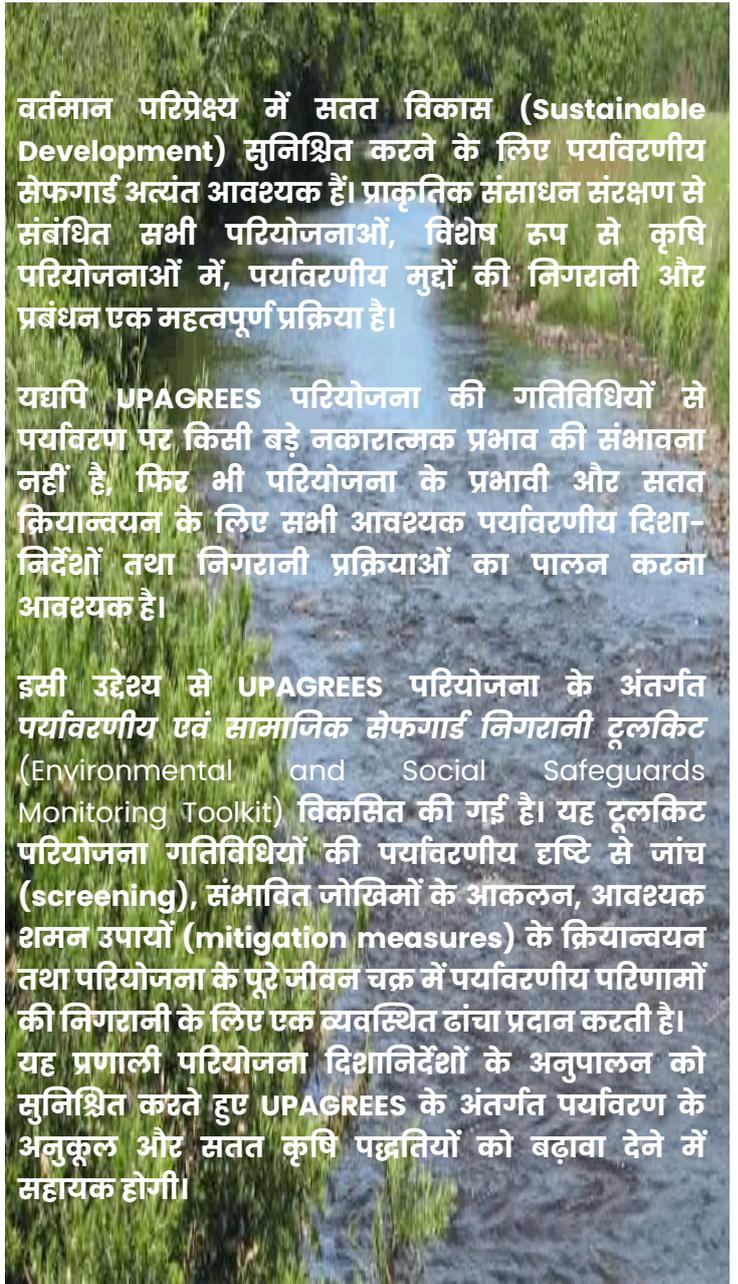
वर्तमान परिप्रेक्ष्य में सतत विकास (Sustainable Development) सुनिश्चित करने के लिए पर्यावरणीय सेफगार्ड अत्यंत आवश्यक हैं। प्राकृतिक संसाधन संरक्षण से संबंधित सभी परियोजनाओं, विशेष रूप से कृषि परियोजनाओं में, पर्यावरणीय मुद्दों की निगरानी और प्रबंधन एक महत्वपूर्ण प्रक्रिया है।

यद्यपि UPAGREES परियोजना की गतिविधियों से पर्यावरण पर किसी बड़े नकारात्मक प्रभाव की संभावना नहीं है, फिर भी परियोजना के प्रभावी और सतत क्रियान्वयन के लिए सभी आवश्यक पर्यावरणीय दिशा-निर्देशों तथा निगरानी प्रक्रियाओं का पालन करना आवश्यक है।

इसी उद्देश्य से UPAGREES परियोजना के अंतर्गत पर्यावरणीय एवं सामाजिक सेफगार्ड निगरानी टूलकिट (Environmental and Social Safeguards Monitoring Toolkit) विकसित की गई है। यह टूलकिट परियोजना गतिविधियों की पर्यावरणीय दृष्टि से जांच (screening), संभावित जोखिमों के आकलन, आवश्यक शमन उपायों (mitigation measures) के क्रियान्वयन तथा परियोजना के पूरे जीवन चक्र में पर्यावरणीय परिणामों की निगरानी के लिए एक व्यवस्थित ढांचा प्रदान करती है। यह प्रणाली परियोजना दिशानिर्देशों के अनुपालन को सुनिश्चित करते हुए UPAGREES के अंतर्गत पर्यावरण के अनुकूल और सतत कृषि पद्धतियों को बढ़ावा देने में सहायक होगी।

Environmental Safeguards Monitoring under the UPAGREES project has two main components.

The first component focuses on ensuring that environmental management procedures are properly followed in accordance with the project guidelines, PIP provisions, and the findings and approved guidelines of the environmental study conducted at the time of project approval, along with World Bank safeguard requirements. This process includes screening of sub-projects, impact assessment and categorization, and identification and implementation of the Environmental and Social Management Plan (ESMP), ensuring compliance throughout the project cycle.

पहला घटक यह सुनिश्चित करने पर केंद्रित है कि पर्यावरण प्रबंधन से संबंधित सभी प्रक्रियाओं का पालन परियोजना के दिशा-निर्देशों, प्रोजेक्ट इम्प्लीमेंटेशन प्लान (PIP) के प्रावधानों तथा परियोजना स्वीकृति के समय किए गए पर्यावरणीय अध्ययन के निष्कर्षों और स्वीकृत दिशानिर्देशों के अनुरूप किया जाए। साथ ही, विश्व बैंक के पर्यावरणीय सेफगार्ड मानकों का भी अनुपालन सुनिश्चित किया जाता है। इस प्रक्रिया में उप-परियोजनाओं की स्क्रीनिंग, संभावित पर्यावरणीय प्रभावों का आकलन एवं श्रेणीकरण (Categorization), तथा **पर्यावरणीय एवं सामाजिक प्रबंधन योजना (ESMP)** की पहचान और उसका क्रियान्वयन शामिल है, जिससे पूरे परियोजना चक्र के दौरान अनुपालन सुनिश्चित किया जा सके।

The second component focuses on monitoring the positive environmental impacts of the project through key indicators such as improvement in Soil Organic Carbon (SOC), estimation of carbon credits generated through sustainable practices, increase in area under Direct Seeded Rice (DSR) for calculating water savings in paddy cultivation, improved soil health, better water-use efficiency, and reduced use of chemical fertilizers and pesticides. In simple terms, the project ensures both safeguard compliance and measurable environmental improvements.

दूसरा घटक परियोजना के सकारात्मक पर्यावरणीय प्रभावों की निगरानी पर केंद्रित है। इसके अंतर्गत कुछ प्रमुख संकेतकों के माध्यम से प्रगति का आकलन किया जाता है, जैसे—मृदा में जैविक कार्बन (Soil Organic Carbon – SOC) में सुधार, सतत कृषि पद्धतियों से उत्पन्न संभावित कार्बन क्रेडिट का आकलन, धान की खेती में जल बचत का अनुमान लगाने हेतु डायरेक्ट सीडेड राइस (Direct Seeded Rice – DSR) के अंतर्गत क्षेत्र में वृद्धि, मृदा स्वास्थ्य में सुधार, जल उपयोग दक्षता में वृद्धि, तथा रासायनिक उर्वरकों और कीटनाशकों के उपयोग में कमी।

CARBON CREDIT

Under the project, there are three stages for monitoring and applying the environmental safeguard process.

STAGE 1: Initial Screening (Project Acceptability Check)

Purpose: To check whether the proposed sub-project is acceptable as per project design and World Bank safeguard requirements.

Process:

- The sub-project is screened using the prescribed checklist **(Annex–1).**
- It is checked against the "**No-Go" (Exclusion) criteria.**

Decision:

- If the project falls under No-Go criteria → The sub-project will be dropped.
- If the project meets safeguard requirements → It will move to Stage 2.

STAGE 2: Impact Assessment & Categorization

Purpose: To assess the severity and extent of Environmental and Social impacts of the sub-project.

Process:

- Impacts are assessed using **Annex–2 format.**
- The sub-project is categorized as Category **A** or Category **B**.

Decision:

- If categorized as Category A (High Risk) → The sub-project will be put on hold.
- If categorized as Category B (Low/Moderate Risk) → It will move to Stage 3 for further assessment.

STAGE 3: Risk Evaluation & ESMP Identification (Detail given in Annex-6)

Purpose: To identify specific environmental and social risks involved and determine required mitigation measures.

Process: Detailed risk evaluation is carried out using **Annex–3.1 & 3.2.**

- Required Environmental and Social Management Plan (ESMP) measures are identified.

The tool works in the following steps:
Step 1:
Select the sector – Agriculture or Aquaculture.

Step 2:
Select the specific activity from the scroll-down list.

Once the activity is selected, the system automatically displays:
Specific mitigation measures required for that activity

This tool is designed to support the MIS process flow and ensure that environmental safeguard requirements are applied systematically and consistently during project implementation.

Project Stage	Why It is required	What types of Tools	Who, how & Verified By
A-1 Environment Screening Tool: At the time of village /pond selection	This tool is a simple environmental screening and compliance checklist prepared as per the World Bank Environmental and Social Framework (ESF) guidelines. It works in the following process: **1. Screening Stage:** During the selection of villages and ponds, the checklist is used to verify environmental safeguard criteria. **2. Verification Stage:** It checks whether the first step of the World Bank safeguard process — environmental screening — has been properly followed. **3.Documentation Stage:** The tool records and maintains evidence that all approved environmental selection criteria were applied during the project selection stage.	This is a simple Yes/No environmental screening checklist designed to ensure compliance with project exclusion criteria. It works in the following process: **1.Basic Screening** (Yes/No Format): The SO staff fill in key environmental questions in a simple Yes/No format. **2.Geo-layer Verification:** Certain information is automatically captured from geo-layers (such as forest areas, protected zones, water bodies, etc.) and linked with the MIS system. **3.Automatic Data Processing:** The MIS auto-generates and processes the required data based on the entered information and geo-linked layers. **4.Guidance to SO Staff:** Clear procedures and required information formats are provided to the SO staff to ensure proper screening. Exclusion Monitoring: The complete details are provided in **Annex–1: Environment Screening Tool (Excluded Activities Monitoring)**, as per the Project Implementation Plan (PIP), Page No. 57 – Exclusion Criteria.	**1. Who will do it?** The SO staff will fill the Environmental Screening Checklist at the time of finalization of the Village/Pond. **2. How will it be done?** •Training will be provided to the SO staff on: •How to fill the environmental safeguard checklists and forms •Compliance requirements •Reporting procedures **3. Verification Process:** The completed checklist will be verified by the Environmental Team of the Project Management Unit (PMU). **4. Reporting Process:** •After analysis and assessment of all screening activities, a compiled report will be prepared. •The report will be submitted to the World Bank on a half-yearly basis, in line with the agreed Environmental and Social Commitment Plan (ESCP).
A- 2 Sub project specific Assessment	Activities under **Component 2** include crop commodity cluster-related works such as *small food processing units*, *crop processing units,*	Sub-Project Screening and Risk Assessment Process **1.Categorization**: Each sub-project is first categorized as Category A or	**Safeguard Implementation and ESMF Process** **1. Documentation of Safeguards:** The screening checklists,

	storage facilities, and fish processing and packaging activities in commodity clusters and fisheries areas.	Category B based on its potential environmental risks. **2.Eligibility for Consideration:** Only Category B (low-risk) projects will be considered for further processing under the UPAGREE project. Category A projects will not be taken forward. **3.Risk and Impact Identification:** For eligible projects, the possible environmental risks and impacts are identified. **4.Risk Level Assessment:** The level of risk involved in the sub-project is assessed. 5. Environmental Management Plan (EMP): Based on the identified risks and impacts, the required Environmental Management Plan (EMP) is prepared.	monitoring formats, and corrective action records together provide clearly documented proof that environmental safeguards are applied at different stages of the project: 1.Planning stage 2.Implementation stage 3.Monitoring stage **2.Training of SO Staff:** SO staff will be trained on how to apply the Environmental and Social Management Framework (ESMF) for identified project activities. **3.Role of ESMF:** The ESMF works as a simple "Do or Not Do" guide. It is based on the mitigation measures given in the Environmental and Social Management Plan (ESMP). **4.Practical Application:** **1.**If an activity meets safeguard requirements → It can proceed with mitigation measures. **2.**If an activity violates exclusion or safeguard criteria → It will not be allowed.
B. Planning: Planning for sub-project Environmental Management Plan	Based on the screening analysis, the Environmental Management Plan (EMP) will be finalized along with the environmental monitoring budget requirements for water and soil quality monitoring.	
c. Implementation and Monitoring	The implementation of the plans will be ensured through site visits, regular reporting from the field, and other planned monitoring activities. Awareness/training will be provided to the relevant staff.	

Annex–1   Environment Screening Tool

When कब	Form to be filled by किसके द्वारा भरा जायेगा	Forwarding by किसके द्वारा DPMU को भेजा जायेगा	Verified by किसके द्वारा द्वारा सत्यापित किया जायेगा	Submitted to किसको जमा होगा
During the selection of village/Pond	Implementation Assistant (Agriculture and Fisheries) of SO in the presence of group members समूह के सदस्यों की उपस्थिति में सहयोगी संस्थाओं के कृषि एवं मत्स्य कार्यान्वयन सहायक द्वारा	Deputy Manager Agriculture & Fisheries उप प्रबंधक कृषि एवं मत्स्य द्वारा	Project Manager परियोजना प्रबंधक द्वारा	SPMU (Environment cell)
DATE:	VILLAGE Name/LGD:	BLOCK:	DISTRICT:	Lat/Long: Auto fetch form Mobile app

Component परियोजना के किस घटक से संबंधित है: Component – 1: Agriculture Component – 2: Fisheries	Proposed work under the activity (एक्टिविटी के अंतर्गत प्रस्तावित कार्य) **Selected Area (ha):** (Selected area / Pond - auto-linked with the MIS for automatic data generation and processing)

A- Excluded activities Monitoring			
S. N	**Description of Environmental and Social Issue**	**(YES or NO)**	**Remarks** **(if yes under any of the item listed under column 2 attract NO-GO scenario and, Sub project must be dropped)**
1	Located within a wildlife Sanctuary or a protected/core area as defined by the forest department		GPS location – Mobile app
2	Critically degraded areas needing substantive investment is rehabilitation. **USAR (PH more then 8) / Highly undulating and eroded land, annually affected by waterlogging**		Soil test data – Mobile app
B- Environmental Screening Monitoring			
1	Involve use of pesticides banned by GOI		During the preparation of the crop plan and demand generation, the information is filled in Yes/No format. *This column is updated again after seed distribution, where information is auto-fetched from the procurement system along with the list of seeds procured under the project.*
2	Involve use of uncertified seeds		

3	Involve burning of crop residue		FPG Wise- During the preparation of the crop plan and demand generation, the information is filled in Yes/No format. This column is updated again after crop harvesting to record how crop waste is managed—such as degraded using chemicals, procured by biogas plants, or managed through other methods. This information is properly maintained by the concerned SO staff under the project. Agriculture department scheme- **ANNEX-5 CRM**
4	Involve Fishpond (tank) filling through groundwater in over exploited area from ground water prospective		Based on ground water department information
5	May endanger cultural resources that are meaningful to the local community or town (such as religious places of worship, scared groves, temple.		During the preparation of the fish-plan and demand generation, the information is filled in Yes/No format. This column is updated again after Fish seed distribution, where information is auto-fetched from the procurement system along with the list of fish seeds procured under the project.

CATEGORIZATION SCREENING OF THE SUB PROJECT   ANNEX - 2

Environmental Screening Checklist

Environmental/ Social Issues	Response		Sub Project Categorization: If any one answer is **Yes** then subbing project will be categorized as **'A'.** If all answers are **No** then sub project will be categorized as **'B'**
	Yes	**No**	
Environmental: Will the subproject cause significant adverse environmental impacts which are sensitive, diverse or unprecedented and also extend beyond sub project areas in terms of any of the below areas:			Based on proposed activities
Effect on Ecology Leads to degradation of forests /cutting of large trees			Based on proposed activities /site
Effect on Ground Water Resources (excessive Depletion of Water Resources)			Based on proposed activities /GWD data (if activities proposed in dark zone and activity scale)
Contamination of Water Resources			Based on proposed activities/UPPCB INDEX TOOL -**Annex-4**
Effect on Archeologically protected areas			**Site visit by SO**
Generation of air pollutants leading to sever air pollution			Based on proposed activities/UPPCB INDEX TOOL -**Annex-4**
Leads to sever Land/Soil contamination			
Leads to change in drainage pattern or changes course of water channels			
Leads to sever accident endangering community			Site -visit

Regulatory Compliance Process – Component 2 (Commodity Clusters) Pollution Index Tool - ANNEX-4

Under **Project Component 2 – Commodity Clusters**, the proposed activities include:

- Small food processing units
- Crop processing units
- Storage facilities
- Fish processing and packaging activities in commodity cluster and fisheries areas

Since these activities involve small-scale agriculture, fisheries, and processing operations, some of them may require statutory approvals or consent from regulatory authorities, especially the **State Pollution Control Board (SPCB)**, as per environmental laws and World Bank requirements.

An Excel-based tool developed by CPCB will be used to finalize the activity-wise pollution category based on inputs such as raw material usage, production capacity, water source and consumption, and other relevant requirements.

Tranning to SO Staff: An Excel-based environmental tool has been obtained from the Pollution Control Department, and training will be provided to SO staff on its effective use.

Step 1: Identification of Activity Type

Each sub-project activity will be reviewed to understand:

- Type of activity / Scale of operation / Location of the unit/ Potential environmental impact

Step 2: Excel-Based Pollution Categorization Tool

An **Excel-based assessment tool** will be used to determine the pollution category automatically.

The SO staff will fill the following details in the tool:

- Type of activity / Raw materials used / Production capacity
- Location details /Type of waste generated (solid/liquid/air emissions)
- Quantity of waste generated

Based on the entered data, the tool will automatically calculate the **Pollution Index (PI)** and determine the pollution category:

- Green /Green/Orange/Red

This ensures transparency, uniformity, and correct categorization as per Pollution Control Board norms.

Step 3: Consent Requirement

- Activities falling under **green, orange, or red categories** require prior:
  - Consent to Establish (CTE)
  - Consent to Operate (CTO)
- White category activities may not require formal consent but must follow general environmental norms.

Step 4: Compliance & Documentation

- All eligible sub-projects will be screened and categorized.
- Required approvals from the Pollution Control Board will be obtained before implementation.
- Compliance with environmental regulations and World Bank safeguards will be ensured.
- Proper documentation will be maintained as per statutory requirements.

Crop Residue Management (CRM)under UPAGREES-ANNEX-5

District: _____ Village: _____

HOW MANEY FPG/AREA (Ha): __ CROP: _____

A. Awareness, Training: Data fetched from the training module

S. No.	Monitoring Point	Yes/No	Details / Remarks
1	Awareness created among farmers regarding CRM & waste decomposing	☐ Yes ☐ No	No. of farmers: _____
2	Training conducted on CRM practices	☐ Yes ☐ No	**Training Date:** _____ **Topic Covered:** _____ **No. of Participants:** _____
3	Agreement signed with FPG for CRM implementation (***If, during implementation, a biochar company/NGO agrees to procure the crop residue,***)	☐ Yes ☐ No	Date of Agreement: _____
4	Proper system for collection, storage & processing of crop residue available	☐ Yes ☐ No	Storage capacity: _____

B. Crop Residue Collection & Management:

S. No.	Monitoring Point	Yes/No	Details / Quantity / Area
5	Crop residue collected for any purpose	☐ Yes ☐ No	**Quantity Collected (MT/Quintal):** _____ **Area Covered (Acre/Ha):** _____
6	Estimated amount/value generated (if applicable)	☐ Yes ☐ No	Amount (Rs.): _____
7	Mulching/composting adopted	☐ Yes ☐ No	Area under mulching: _____
8	CRM techniques (plowing under residue)	☐ Yes ☐ No	Area covered: _____

	implemented	No	
9	Machinery used (mulcher/chopper/baler etc.)	☐ Yes ☐ No	Type of Machine: _____
10	Chemical method used for decomposition (if any)	☐ Yes ☐ No	Name of chemical/decomposer: _____
11	Machinery provided to eligible women farmers/entrepreneurs without discrimination	☐ Yes ☐ No	No. of women beneficiaries: _____

Criteria for Severity of risk is given under STAGE 3 ANNEX-6

Any subproject with low and moderate risk would be categorized as Category – B. Any subproject with any of the above risk under substantial and high Category will be treated as Category – A.

The **Category A sub project** shall be **put on hold (site specifics detail Assessment)**. However, **category B** project will be taken for **Stage III screening assessment**.

Screening for Identification/Evaluation of Risk and Identification ESMP Requirements

The purpose of this stage screening will be two-fold:

1. Identify the activities involved and its interface with environment aspects
2. Assessment of extent of risk involved
3. Identification of environmental management plan required to mitigate and manage the risk Identified.

- Based on the screening results and the identified need for an Environmental Management Plan (EMP), the plan will be implemented accordingly. The EMP is developed in line with the mitigation measures outlined in the impact assessment **Annex-3.1 & Annex 3.2**, as well as the environmental guidelines provided in Annex 3.

- Prior to the commencement of project activities, training sessions will be conducted for SO staff to ensure effective implementation of the plan. The Environment Cell of PMU will coordinate the completion of necessary documentation, permits and clearances under environmental regulations of the Government before commencement of any project activities.

- At this stage, SO staff involved in various sub-project activities will receive training on the Environmental and Social Management Plans (ESMPs) relevant to their specific tasks. Training modules, covering all relevant processes, are currently being developed in both Hindi and English.

List of Standard ESMPs Prepared

S. N	Component	Sub-Component	Standard ESMP
1.	**Component – 1:** Productivity Enhancement	Sub-component 1.1:	**ESMP – 1**: Resource Use Efficiency for Productivity enhancement
2.		Sub-component 1.2:	**ESMP – 2**: Mechanism for Improved Seed System.
4.	**Component – 2:** Commodity Clusters	Sub-component 2.1:	**ESMP – 3**: Development of Agro-Clusters.
5.		Sub-component 2.2:	**ESMP – 4**: Fisheries Clusters Development.