

Environmental and Social Safeguards Report

Project: Integrated Aqua Park, Aqua Hub and Fisheries Ecosystem Development Project

Location: Baghel Taal, Payagpur, District: Bahraich

1. Introduction & Overview

Based on the proposed activities, work plan submitted, and field visit conducted for the Integrated Aqua Park, Aqua Hub and Fisheries Ecosystem Development Project at Baghel Taal, Payagpur, Bahraich, the following Environment and Social Safeguards (E&S) compliance measures shall be ensured:

The proposed activities have been screened considering the site conditions and the Negative List (No Activities) prescribed under the approved Environmental and Social Management Framework (ESMF) of the World Bank-financed UPAGREES Project. Based on the screening, the proposed activities are found to be suitable. In addition, the following Environmental and Social (E&S) safeguard measures shall be complied with:

Key Directives

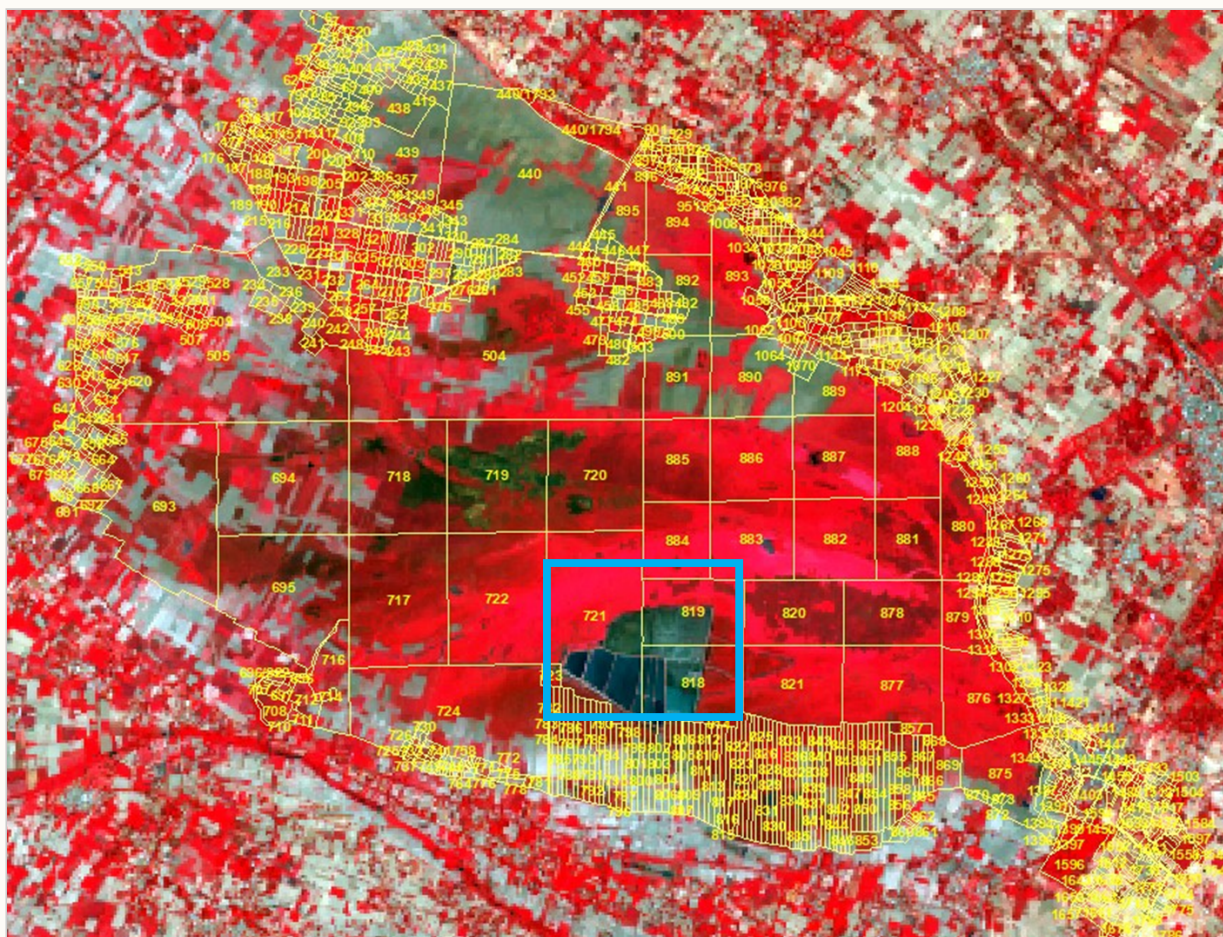
- **Tilapia Fish Culture:** As the project site is surrounded by natural water bodies, the Tilapia Fish Culture component shall be removed from the proposed Production Plan from an environmental safeguard's perspective.
- **Site Restrictions:** Based on the work plan map submitted, the proposed project shall be restricted only to Khasra Nos. 721, 718, and 719, covering a total area of 100 hectares. All project activities shall be implemented exclusively within this approved 100-hectare area. No project activity shall be undertaken in any other khasra parcel or any other area of Baghel Taal.
- **Compliance:** During project implementation, full compliance shall be ensured with the approved Environmental and Social Management Framework (ESMF) of the World Bank-financed UPAGREES Project, all applicable environmental and social safeguard requirements, and any instructions or guidelines issued by the competent authorities from time to time.

2. Project Site Maps

Based on the work plan map submitted, Map-1 (Year 2025) presents the layout of the proposed Khasra Nos. 721, 718, and 719 out of all the khasra parcels of Baghel Taal. Map-2 (August 2026) presents the area selected for the proposed project activities within these khasra parcels.



MAP-1 2025 JAN: Khasra Nos. 721, 718, and 719 - Site status during the lease and before start the implementation



MAP-2 2026 AUG: Khasra Nos. 721, 718, and 719 - Work status Proposed Project sites/Khasra

3. Environmental Records and Compliance

All environmental monitoring records, waste disposal registers, machinery maintenance logs, water quality reports, tree inventory records, plantation records, and biosecurity records shall be maintained at the project site. These records shall be made available during inspections by the UPAGREES Project, World Bank missions, or any other competent authority.

4. Activity Details and Monitoring Checklist (Table 1)

Activity Details	Monitoring Checklist / Means of Verification
1. Pond Renovation and Development: Renovation of existing ponds through desilting, bund strengthening, pond levelling, and repair of embankments to create scientifically managed demonstration ponds.	Site inspection with GPS coordinates; geo-tagged photographs before, during, and after renovation; verification by the Village Community Monitoring Committee (CMC); field inspection report.

2. Pond Preparation: Pond drying, removal of weeds and predatory fish, liming, fertilization, installation of inlet and outlet screens, and preparation before stocking.	Field inspection with GPS coordinates; geo-tagged photographs; verification by the Village Community Monitoring Committee; pond preparation register.
3. Feed Storage Facility: Construction of a secure feed storage facility with moisture protection, ventilation, storage racks, and inventory management system to maintain feed quality.	Site inspection; geo-tagged photographs; stock register; field verification report.
4. Water Quality Monitoring: Regular monitoring of pH, dissolved oxygen (DO), temperature, ammonia, alkalinity, and other water quality parameters to maintain optimum pond conditions.	Monthly water quality monitoring reports; water testing register; field verification; purchase bill/invoice of water testing kit and monitoring equipment.
5. Fish Health and Biosecurity: Disease surveillance, pond sanitation, quarantine measures, regular fish health monitoring, mortality recording, and implementation of biosecurity protocols.	Fish health register; mortality register; medicine and treatment records; site inspection; field verification by the Community Monitoring Committee and SO staff and deputy manager fish.

5. Roles & Responsibility of ESMF (Table 2.1 & 2.2)

ESMP Activity	Implementation Agency	Responsibility	Supervision
Pond siltation & Development	Fisheries staff of Agency	Deputy Manager (Fisheries)	DPM
Solar Pumping System	Fisheries staff of Agency	Deputy Manager (Fisheries)	DPM
Feed Storage Facility	Fisheries staff of Agency	Deputy Manager (Fisheries)	DPM
Labour Huts & Utility Facilities	Fisheries staff of Agency	Deputy Manager (Fisheries)	DPM
Water Quality Monitoring	Fisheries staff of Agency	Deputy Manager (Fisheries)	DPM
			DPM

Scientific Fish Stocking/ Fish Health & Biosecurity	Fisheries staff of Agency	Deputy Manager (Fisheries)	
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Institutional Roles

Institution	Role
Fisheries staff of Agency_PVR	Day-to-day implementation of ESMP activities, environmental compliance, water quality monitoring, biosecurity management, maintenance of records, and submission of monthly progress reports.
Deputy Manager (Fisheries), UPAGREES	Overall responsibility for implementation, review of monthly progress, approval of mitigation measures, coordination with district officials, and ensuring compliance with ESMP provisions.
DPM, UPAGREES	Overall technical supervision, monitoring implementation progress, conducting periodic field inspections, reviewing compliance reports, providing technical guidance, and ensuring corrective actions are implemented.
Environment & Social Cell, UPAGREES Headquarters	Independent oversight of ESMP implementation, review of environmental and social compliance, periodic monitoring and audits, verification of mitigation measures, capacity building, reporting to the Project Management Unit (PMU), and recommending corrective actions where necessary.

6. E&S Mitigation Measures (Table 3)

Proposed Activity Feature	Status	Allow with Measures & Mandatory Conditions
Tilapia Fish Culture (10 acres)	Rejected	Removed from the proposed Production Plan. This is an environmental safeguard requirement due to the project site being surrounded by natural water bodies.
1. Site Preparation	Mandatory	• Pond Allocation: Restrict hatcheries, nurseries, and grow-out ponds only to the central sector of the approved leased khasra area. • Border Restrictions: Ponds along the lease boundary or adjacent to natural/open water bodies shall not be used for fish culture.

		• Fish Culture Zone: Provide central GPS coordinates of the approved fish culture zone and clearly demarcate it in Map-2.
2. Structural Integrity and Silt Management	Mandatory	• Bund Construction: Design, construct, and maintain all embankments above the highest recorded flood level to prevent overtopping. • Silt Utilization: Exclusively use all silt/sludge for repairing and raising pond embankments. • Dumping Prohibition: Do not dump silt on adjacent agricultural land, open land, drainage channels, or nearby aquaculture areas.
3. Water Management and Discharge Control	Mandatory	• Zero Direct Discharge: Do not discharge pond water into natural drains or surrounding areas; reuse water within the project area by transferring it between ponds. • Runoff Control: Develop peripheral drainage trenches to divert rainfall and prevent flooding into culture ponds. • Water Storage: Develop a dedicated balancing pond to store rainwater and floodwater for reuse. • Natural Water Protection: Do not pump water directly from nearby natural drains or open water bodies into culture ponds.
4. Biosecurity and Stock Management	Mandatory	• Approved Fish Stock: Stock only certified and legally approved fish seed/fingerlings permitted by the competent authority. • Predator Control: Install overhead bird netting or effective deterrents to prevent predatory birds from transferring live fish/eggs to natural water bodies.
5. Solid and Hazardous Waste Management	Mandatory	• Solid Waste: Collect, segregate, and properly dispose of fish mortalities, processing waste, medicines, and plastic/feed bags. Never dispose of waste in ponds, natural drains, or surrounding land. • Hazardous Waste: Store used oil, grease, lubricants, and filters in leak-proof containers for disposal by authorized recyclers. Ensure no oil/grease is released into the soil or water.

		• Register: Maintain a site register recording the type, quantity, date, and disposal method.
6. Machinery Management	Mandatory	1. Maintain all machinery in good condition to prevent fuel/oil leaks. 2. Keep preventive maintenance and servicing records on-site for inspection. 3. Carry out refueling and maintenance only at designated locations equipped with spill prevention measures.
7. Tree Protection and Plantation	Mandatory	• No Tree Cutting: Do not cut, remove, or damage any trees without prior approval from the competent authority. • Baseline Inventory: Prepare and maintain a record of existing trees (count, species, location) before work begins. • Plantation Plan: Native species, plantation (pond bank).
8. Renewable Energy Use	Mandatory	• Use solar-powered pumps for internal water transfers wherever feasible. • Diesel pumps are strictly prohibited for routine pumping and may only be used in emergency situations with prior approval.
9. Biodiversity Conservation	Mandatory	• Establish bird observation huts/watch towers along embankments to facilitate monitoring. • Plan all activities to minimize disturbance to resident/migratory birds and aquatic biodiversity. • Ensure no project activity adversely affects nearby natural habitats or ecological corridors.
10. Water Quality Monitoring	Mandatory	• Conduct monthly monitoring for all culture ponds. • Required Parameters: pH, Dissolved Oxygen (DO), Temperature, Turbidity, Electrical Conductivity (EC), Total Dissolved Solids (TDS), Ammonia, Nitrite, and other Fisheries Department prescribed parameters. • Keep a portable/mobile water quality testing kit available at the project site at all times.

7. Aqua Tourism Zone: Status and Mandatory Measures (Table 3.2)

Proposed Activity Feature	Status	Allow with Measures & Mandatory Conditions
Overall Construction	Rejected (Permanent)	No permanent or concrete construction is allowed for any proposed activities under this proposed site.
Eco-Cottages	Modified / Conditional	Must be developed strictly on the pond banks using non-permanent, eco-friendly materials.
Restaurant	Modified / Conditional	Restricted to a mobile restaurant only. Must be located on the pond bank or in a corner area.
Waste Management	Mandatory	Solid waste collection drums must be placed for the collection and proper disposal of all waste generated.
Core Zone Access	Rejected (Direct Entry)	No direct human entry is allowed in the core wet zone, which is highly rich in flora and fauna within Baghel Taal.
Operating Hours (Angling, Boating, etc.)	Conditional	All aqua tourism activities are strictly permitted during daytime only only in proposed sites.

8. Community Monitoring Committee (CMC)

A Community Monitoring Committee (CMC) shall be constituted comprising local residents of Gram Panchayat Baghel. The Committee shall be formed in the presence of village residents through a transparent and voluntary selection process, including the selection of a Committee Leader, Paryavaran Mitra and other community volunteers representing the local village.

Community Monitoring Committee Checklist (Table 3.3)

Component / Aspect	Mandatory Conditions & Monitoring Requirements
Committee Constitution & Composition	• Must comprise local residents of Gram Panchayat Baghel. • Formed through a transparent and voluntary selection process in the presence of village residents.

	• Must include the selection of a Committee Leader, Paryavaran Mitra, and other community volunteers representing the local village.
Silt & Sludge Management Verification	Verify and record that silt/sludge from pond preparation or desilting is not disposed of on private property or unauthorized locations.
Community Access & Movement	• Verify and record that the movement and access of Baghel Village residents through the Baghel Taal embankments are not adversely affected by project activities. • If necessary, the implementing agency must develop and maintain suitable access passages or pathways to ensure uninterrupted community movement.
Aquatic Fauna Migration	Verify and record that the natural movement and migration of aquatic fauna within Baghel Taal are not obstructed or adversely affected by pond embankments or project infrastructure.