

## **Guideline For Ground Water Extraction**

### **Objective of the Guidelines:**

The objective of these guidelines is to promote sustainable groundwater use and minimize environmental impacts associated with project activities.

### **Scope and Coverage:**

These guidelines apply to all project activities involving groundwater extraction, including but not limited to mini fish processing units, hatcheries, seed storage facilities, irrigation systems, and micro watershed management approaches.

### **Interface with Project Components:**

The following activities involve groundwater extraction and are subject to mitigation measures:

- Establishment of Mini Fish Processing Unit
- Establishment, Modernization, and Upgradation of Hatcheries
- Setting Up Integrated Seed Storage, Processing, and Packing Facilities
- Laying of Water Channels and Plastic Pipes for Irrigation
- Water Extraction for Irrigation in Conjunctive Water Use and Management (CWUM)
- Utilization of Water in Micro Watershed Management Approaches

### **Regulatory Applicability:**

Comply with local regulations and permits related to groundwater extraction, water use, and environmental conservation.

### **Activities and Corresponding Mitigation Measures:**

<b>Activity</b>	<b>Mitigation Measures</b>
Establishment of Mini Fish Processing Unit	- Implement water recycling systems to reduce freshwater usage.
	- Monitor water quality to prevent contamination.
Establishment, Modernization, and Upgradation of Hatcheries	- Use efficient water recirculation systems to minimize consumption.
	- Treat and reuse hatchery effluents to reduce freshwater demand.
Setting Up Integrated Seed Storage, Processing, and Packing Facilities	- Adopt water-efficient processing technologies.
	- Implement rainwater harvesting for non-potable water needs.

Laying of Water Channels and Plastic Pipes for Irrigation	- Implement leak detection and repair programs.
	- Promote drip irrigation for precise water application.
Water Extraction for Irrigation in CWUM	- Monitor groundwater levels and adhere to extraction limits.
	- Use crop rotation and soil moisture conservation techniques.
Utilization of Water in Micro Watershed Management Approaches	- Implement water recharge strategies (e.g., check dams, percolation tanks).
	- Encourage community-based water conservation initiatives.

#### Implementation Tips:

- Training: Conduct regular training on water conservation practices.
- Monitoring: Monitor water usage and quality to ensure compliance.
- Adaptation: Adjust strategies based on local conditions and feedback.
- Collaboration: Engage with stakeholders for effective water management.

#### Reporting and Record Keeping:

Maintain records using the following format for groundwater extraction activities:

#### Groundwater Extraction Monitoring and Mitigation Record:

Date	Activity	Mitigation Implemented	Compliance Status
[Date]	Establishment of Mini Fish Processing Unit	Water recycling systems	[Compliant/Non-compliant]
[Date]	Laying of Water Channels for Irrigation	Leak detection and repair	[Compliant/Non-compliant]
[Date]	Utilization of Water in Micro Watershed	Water recharge strategies	[Compliant/Non-compliant]

Document implementation of mitigation measures, compliance status, and any corrective actions taken.

