



CHECKLIST FOR CONSTRUCTION AND REHABILITATION OF SMALL DAMS



**SOCIAL & ENVIRONMENTAL
MANAGEMENT UNIT (SEMU)**

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INSTRUCTIONS FOR FILLING IN THE CHECKLIST

Before filling the checklist, concerned officer should read these instructions carefully and contact SEMU office if further clarification or information is required

1. Study “Social and Environmental Assessment Guidelines for Irrigation Infrastructure” circulated by the IPD with the purpose to fully understand the guidelines, checklists and mitigation measures
2. Project based supplementary checklists have been provided for different irrigation and drainage Projects including small dams. Fill only the concerned checklists
3. Glossary of Terms is provided below for convenience
4. Before submitting PC-1 to DDSC for approval, final PC-1 along with the filled checklists may be sent to SEMU at least 3 days prior to the DDSC meeting for timely feedback
5. Use additional space if required with any of the checklists
6. Monitoring Plan of SEMU:

Keeping in view the responsibility to ensure social and environmental mitigation measures are duly implemented, SEMU team has developed a Monitoring mechanism which includes:

- ✓ Reporting by the project Executing Engineer to SEMU
- ✓ Inspection visits by SEMU for field observations

GLOSSARY

Major project actions/activities means land acquisition (temporary or permanent), construction of embankment/ spillway, creation of reservoir, construction of irrigation channel etc

Mitigation measures are the measures that will be proposed by the executing officer to mitigate the potential negative impacts and to enhance the beneficial impacts i.e. to make the project environment friendly

Result indicators means to provide the documents or data to verify mitigation measures that have been properly taken in time, including progress reports, photographs and field visits etc

Environmental hotspots: The areas which have environmental as well as cultural and social value. They may include protected areas, game reserves, national parks, wildlife sanctuaries, forests and trees etc

Protected area: An area of land especially dedicated for the protection and maintenance of biological diversity, and of natural and associated cultural resources, and is managed through legal or other effective means

National park: A national park is a reserve of land, usually, but not always declared and owned by national government, protected for human development and recreation

Game reserve: A game reserve is an area of land set aside for maintenance of wildlife for tourism or restricted hunting purposes

Flora: All the botanic species e.g. vegetation of any kind, crops, plants, forests, gardens, orchards etc

Fauna: All the zoological species e.g. wildlife (animals, birds), cattles, game animals etc

Infrastructure: Structures like railway, road network, sewerage, telephone, and gas pipelines etc

Archeological sites: The sites which have significance as built heritage and have historic value

Cultural sites: The sites which have educational, artistic, civilizing, literary and intellectual value

Religious sites: The sites which have religious, sacred, spiritual or symbolic value e.g. shrine, temple, tomb or any other holy place of worship

Health hazards: The hazards which can cause damage to human health either by direct or indirect means e.g. during project activities or after completion of the project

Scenic/Aesthetic beauty: Landscape of the area that may be affected due to project activities e.g. due to irregular cutting of trees, due to piles of solid waste and garbage etc

IPM: Integrated Pest Management (IPM) is a program launched for the purpose to involve the farming community to make ecologically based pest control practices that seek to reduce reliance on synthetic chemical pesticides etc

Endangered species: Species which are very rare and are going to be diminished

Community ties: Groups of people having socio cultural associations with each other

Vulnerable groups: Groups of people who are at the maximum socio economic risks due to any change in their prevailing setup e.g. small land holders, child labor, bonded labor, farm labor, nomads, squatters, disabled, women etc

Squatters: People who take unauthorized possession on unoccupied land i.e. nomads, unlawful residents

Ethnic minority: People fewer in number in the prevailing religious, cultural, tribal or caste system of the village

SAMPLE REPORTING FORM

Name of Project: _____

Location of Project: _____

Total Storage Capacity: _____

Total Command Area: _____

Project Stage	Planning PC-I	Execution	Completion
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Name and Designation of Executing Officer _____

Cell # _____

e-mail _____

1. Major Project Actions/Activities

1. Land acquisition _____
2. Construction of embankment/ spillway _____
3. Creation of reservoir _____
4. Construction of irrigation channel _____

2. Identify and explain problems encountered in applying IPD Social and Environmental Guidelines.**3. Do you have any suggestions on how the guidelines/checklists can be improved?****4. Was SEMU assistance sought for filling in the checklist before submission of PC-1 to DDSC?****5. What % age of total cost has been allocated for environmental mitigation measures?**

Name and Signature of executing officer:

Date:

PRIMARY BASELINE DATA COLLECTION FOR CONSTRUCTION AND REHABILITATION OF SMALL DAMS

PARAMETERS OF PHYSICAL/BIOLOGICAL/SOCIAL ENVIRONMENT	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS
PHYSICAL ENVIRONMENT				
• What is the major source of water for drinking purposes?				Surface Water <input type="checkbox"/> Ground water <input type="checkbox"/>
• What is the major source of water for agricultural purposes?				Surface Water <input type="checkbox"/> Ground water <input type="checkbox"/> Rain Water <input type="checkbox"/>
• Is the quality of surface water suitable for drinking and for agriculture purposes?				Drinking <input type="checkbox"/> Agriculture <input type="checkbox"/>
• Is the quality of ground water suitable for drinking and for agriculture purposes?				Drinking <input type="checkbox"/> Agriculture <input type="checkbox"/>
• Is there any risk of earthquake in the area? (Seismic survey has been conducted or not)?				If yes, please attach the relevant documents
• What is the present ground water level?				_____ ft
• Is soil suitable for agriculture?				
• Is there any water logged area?				_____ acres
• What is the average annual rainfall?				_____ mm
BIOLOGICAL ENVIRONMENT				
• Are there trees and forests present in the proposed project area?				No of trees _____ Area _____ Acres Name / Type _____
• Are there gardens and orchards present in the proposed project area?				No of gardens and orchards _____ Area _____ Acres Name / Type _____
• Are there crops and other vegetation resources present in the proposed project area?				Name of crops _____ Area _____ Acres
• If yes, then who is the owner of these assets?				Government Department <input type="checkbox"/> Private owners <input type="checkbox"/>
• Is there any type of endangered species or animals in the project area?				No of species _____ Type _____

PARAMETERS OF PHYSICAL/BIOLOGICAL/SOCIAL ENVIRONMENT	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS
<ul style="list-style-type: none"> Is there any environmental hot spot in proposed area? 				National Park <input type="checkbox"/> Game Reserve <input type="checkbox"/> Wildlife Sanctuary <input type="checkbox"/> Wetlands <input type="checkbox"/> Grazing Areas <input type="checkbox"/>
<ul style="list-style-type: none"> Are there any fish farm/ hatchery in the area? 				No. _____ Area _____ Acres
SOCIAL ENVIRONMENT				
<ul style="list-style-type: none"> Is the community consulted during planning of the project? 				
<ul style="list-style-type: none"> Is land acquisition necessary? How much? 				_____ acres
<ul style="list-style-type: none"> If yes, then land acquisition voluntary or involuntary? 				Voluntary _____ acres Involuntary _____ acres
<ul style="list-style-type: none"> Is there any kind of displacement of people/their households/ assets required? 				No. _____ Type _____
<ul style="list-style-type: none"> Is there watershed management program required? 				
<ul style="list-style-type: none"> Is there any type of archaeological, religious or historical site present in the project area? 				No. _____ Type _____
<ul style="list-style-type: none"> What is the scenic/aesthetic quality of the area? 				Good <input type="checkbox"/> Excellent <input type="checkbox"/> Poor <input type="checkbox"/>
<ul style="list-style-type: none"> Are there agricultural extensions services being provided by the agriculture department in the area? 				
<ul style="list-style-type: none"> Is there any Integrated Pest Management (IPM) program going on in the area? 				Name of program _____

CHECKLIST FOR IDENTIFICATION OF S & E IMPACTS DURING CONSTRUCTION AND REHABILITATION OF SMALL DAMS

MAJOR PROJECT ACTIONS	PARAMETERS OF PHYSICAL/BIOLOGICAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
LAND ACQUISITION	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Displacement / Resettlement 				
	<ul style="list-style-type: none"> • Loss of Houses 				
	<ul style="list-style-type: none"> • Loss of Infrastructure/ Utilities 				
	<ul style="list-style-type: none"> • Loss of Crops/ Trees/ Orchards /Forests/ gardens and other vegetation 				
	<ul style="list-style-type: none"> • Loss of Land 				
CONSTRUCTION OF EMBANKMENT/ SPILLWAY	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Dust Pollution 				
	<ul style="list-style-type: none"> • Noise and Vibration 				
	BIOLOGICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Cutting of trees / vegetation 				
	SOCIAL ENVIRONMENT				
CREATION OF RESERVOIR	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Increase in water logging 				
	<ul style="list-style-type: none"> • Increase in soil salinity 				
	<ul style="list-style-type: none"> • Deterioration in surface water quality 				
	<ul style="list-style-type: none"> • Decrease in surface water availability 				
	<ul style="list-style-type: none"> • Deterioration in groundwater quality 				
	<ul style="list-style-type: none"> • Flood risks 				
	BIOLOGICAL ENVIRONMENT				

MAJOR PROJECT ACTIONS	PARAMETERS OF PHYSICAL/BIOLOGICAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	<ul style="list-style-type: none"> • Damage to Crops/ Trees/ Orchards /Forests/ gardens and other vegetation 				
	<ul style="list-style-type: none"> • Damage to environmental hotspots 				
	<ul style="list-style-type: none"> • Disturbance to wild animals and birds etc 				
	<ul style="list-style-type: none"> • Damage to fisheries / aquatic life 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Displacement / Resettlement 				
	<ul style="list-style-type: none"> • Loss of Houses 				
	<ul style="list-style-type: none"> • Loss of Infrastructure/ Utilities 				
	<ul style="list-style-type: none"> • Loss of Land 				
	<ul style="list-style-type: none"> • Damage to archeological / cultural / religious sites 				
<ul style="list-style-type: none"> • Deterioration of scenic/aesthetic quality 					
CONSTRUCTION OF IRRIGATION CHANNEL	BIOLOGICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Cutting of Trees / Vegetation 				
	<ul style="list-style-type: none"> • Damage to environmental hotspots 				
	<ul style="list-style-type: none"> • Disturbance to wild animals and birds etc 				
	<ul style="list-style-type: none"> • Damage to fisheries / aquatic life 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Displacement / Resettlement 				
	<ul style="list-style-type: none"> • Loss of Assets 				
	<ul style="list-style-type: none"> • Loss of Infrastructure/ Utilities 				
	<ul style="list-style-type: none"> • Loss of Crops 				
<ul style="list-style-type: none"> • Loss of land 					
<ul style="list-style-type: none"> • Damage to archeological / cultural / religious sites 					

ADOPTED MITIGATION MEASURES

MAJOR PROJECT ACTIONS / ACTIVITIES		PARAMETERS	IDENTIFIED IMPACTS	ADOPTED MITIGATION MEASURE(S)	MITIGATION COST
1.	Land Acquisition				
2.	Construction of Embankment/ Spillway				
3.	Creation of Reservoir				
4.	Construction of Irrigation Channel				

Name and Designation of executing officer:

Signature / Date:

MONITORING / EVALUATION FORM

Name of Project _____

Location of Project _____

Total Storage Capacity _____

Project Stage Planning PC-I Execution Completion

Project Duration _____

Name and Designation of Executing Officer _____

Cell # _____

e-mail _____

MAJOR PROJECT ACTIONS		IDENTIFIED IMPACTS *	MITIGATION MEASURES	RESULT INDICATORS	MONITORING RESPONSIBILITY
1	Land Acquisition				
2	Construction of Embankment/ Spillway				
3	Creation of Reservoir				
4	Construction of Irrigation Channel				

* Those impacts that are identified in the previous table ' B'

Name and Designation of executing officer:

Signature / Date: