



CHECKLIST FOR CONSTRUCTION / REHABILITATION / REMODELING OF DRAINS

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), excavation / diversion, earth work (provision, dressing, reshaping and compaction), construction of bridges, lining of drain and operation of drain etc

Mitigation measures are the measures that will be proposed by the executor to mitigate the potential negative impacts and to enhance the beneficial impacts

Results indicators means to provide the documents or data to verify that mitigation measures have been properly taken in time including progress reports, photographs 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 to 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 a national government, protected from most 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

Encroachment: Illegal occupation of land and construction of structures e.g. houses, shops, koasacs, chappar, benches 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

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

Water logging: It is a phenomenon whereby soil remains water saturated at least one year and is detrimental to the growth of normal plants

Soil salinity: The excessive accumulation of soluble salts in the soils which affects the growth of normal plants or crops

Squatters: People who take unauthorized possession on unoccupied land

Effluent: Any material in solid, liquid or gaseous form being discharged from any industry or municipality or construction work or agriculture work

SAMPLE REPORTING FORM

Name of Project/Drain: _____
 Location of Project/Drain: _____

Project Stage	Planning PC-I	Execution	Completion
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Total Discharge _____

Total Command Area _____

Project Duration _____

Cell # _____

e-mail _____

1. Major Project Actions/Activities

1. LAND ACQUISITION
2. EXCAVATION/ DIVERSION
3. EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)
4. CONSTRUCTION OF BRIDGES
5. LINING OF DRAIN
6. OPERATION OF DRAIN

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:

PARAMETERS OF ENVIRONMENTAL / SOCIAL IMPACTS	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS
• Is there cutting of trees and clearance of vegetation involved due to activity?				No of trees Type
• What percentage of trees, forest, gardens are going to be uprooted?				%
• What type of wildlife is present in the area?				Type
• Are there any endangered species in the area?				Type
• Are there any types of environmental hot spots?				Protected areas, National park, Game reserve, Wetlands, Grazing areas, Local forest/s
SOCIAL ENVIRONMENT				
• Has the community been involved in consultation?				
• Did the community respond? What is %age?				Agreed %age Disagreed %age
• What type of land is to be acquired for activity?				Private land State land
• Has it been documented or compensation prepared?				
• Necessary land acquisition?				Voluntary ----- acres Involuntary----- acres
• Is there any displacement of people, their households, assets or livelihoods?				
• Whether the resettlement of people is involved?				
• Is there any type of infrastructures/ utilities present?				Railway, road network, sewerage, telephone, and gas pipelines Their No. & Type
• Is there any type of encroachment present?				Houses, shops, koasacs, chappar, benches No. & Type Temporarily or Permanent
• Are squatters present in the activity area?				
• Is there any affect on vulnerable groups due to project?				nomadic, squatters, disabled, child labor, bonded labor women headed household

PARAMETERS OF ENVIRONMENTAL / SOCIAL IMPACTS	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS
<ul style="list-style-type: none"> Is there any division of land involved in the project? 				
<ul style="list-style-type: none"> Are there any conflicts on drainage system in the area? 				
<ul style="list-style-type: none"> What is the scenic/aesthetic quality of the area? 				Excellent Good Poor
<ul style="list-style-type: none"> Is there any type of archaeological, religious or historical sites? 				No. Type

CHECKLIST FOR IDENTIFICATION OF S & E IMPACTS DURING CONSTRUCTION, REHABILITATION, REMODELING OF DRAINS

PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
LAND ACQUISITION	SOCIAL ENVIRONMENT				
	• Displacement / resettlement				
	• Loss of livelihood				
	• Loss of houses				
	• Loss of infrastructure/ Utilities				
	• Loss of crops/ trees/ orchards				
	• Loss of land/ ownership				
EXCAVATION/ DIVERSION	PHYSICAL ENVIRONMENT				
	• Dust Pollution				
	• Noise and vibration				
	• Reduction in fertility				
	BIOLOGICAL ENVIRONMENT				
	• Cutting of trees / Removal of vegetation				
	• Damage to forests/game reserves / national parks				
	• Disturbance to wild animals and birds etc				

PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	<ul style="list-style-type: none"> • Damage to wet lands 				
	<ul style="list-style-type: none"> • Damage to fisheries / aquatic life 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Damage to archeological / cultural/ religious sites 				
	<ul style="list-style-type: none"> • Threat to health 				
	<ul style="list-style-type: none"> • Deterioration of scenic/aesthetic quality 				
EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)	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 / Removal of vegetation 				
	<ul style="list-style-type: none"> • Disturbance to wild animals and birds etc 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Loss of crops/ trees/ orchards 				
	<ul style="list-style-type: none"> • Loss of infrastructure/ Utilities 				
	<ul style="list-style-type: none"> • Threat to health 				
<ul style="list-style-type: none"> • Deterioration of scenic/aesthetic quality 					

PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
CONSTRUCTION OF BRIDGES	PHYSICAL ENVIRONMENT				
	• Noise and vibration				
	SOCIAL ENVIRONMENT				
	• Loss of infrastructure/ Utilities				
LINING OF DRAIN	PHYSICAL ENVIRONMENT				
	• Dust Pollution				
	• Noise and vibration				
	• Land Pollution				
	• Affect on groundwater quality				
	SOCIAL ENVIRONMENT				
	• Threat to health				
	• Emergence of social conflict				
	• Loss of infrastructure / utility				
OPERATION OF DRAIN	PHYSICAL ENVIRONMENT				
	• Affect on groundwater quality				
	BIOLOGICAL ENVIRONMENT				
	• Disturbance to wild animals and birds etc				

PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	<ul style="list-style-type: none"> Threat to aquatic life 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> Emergence of social conflicts 				
	<ul style="list-style-type: none"> Threat to public health 				
	<ul style="list-style-type: none"> Deterioration of aesthetic quality 				

ADOPTED MITIGATION MEASURES

MAJOR PROJECT ACTIONS / ACTIVITIES		PARAMETERS	IDENTIFIED IMPACTS	ADOPTED MITIGATION MEASURE(S)	MITIGATION COST
1.	LAND ACQUISITION				
2.	EXCAVATION/ DIVERSION				
3.	EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)				
4.	CONSTRUCTION OF BRIDGES				
5.	LINING OF WATER CHANNEL				
6.	OPERATION OF DRAIN				

Name and Signature of executing officer:

Date:

MONITORING / EVALUATION FORM

Name of Project: _____

Location of Project: _____

Project Stage Planning PC-I Execution Completion

Project Duration _____

Name and designation of executing Officer _____

Cell # _____

e-mail _____

MAJOR PROPOSED ACTIONS		MITIGATION MEASURES	RESULTS INDICATORS	MONITORING RESPONSIBILITY
1	LAND ACQUISITION			
2	EXCAVATION/ DIVERSION			
3	EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)			
4	CONSTRUCTION OF BRIDGES			
5	LINING OF DRAIN			
6	OPERATION OF DRAIN			

Name and Signature of executing officer:

Date: