



CHECKLIST FOR REHABILITATION / REMODELING / MAINTENANCE OF CANALS / DISTRIBUTARIES / MINORS

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), closure of canal, excavation/ diversion, earth work (provision, dressing, reshaping and compaction), construction of bridges and lining of water channel, 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 mean 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

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

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

SAMPLE REPORTING FORM

Name of Project/Channel: _____

Location of Project/Channel: _____

Project Stage	Planning PC-I	Execution	Completion
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Total Discharge _____

Total Command Area _____

Project Duration _____

Name and designation of executing Officer _____

Cell # _____

E-mail _____

- 1. Major Project Actions/Activities**
1. LAND ACQUISITION
 2. CLOSURE OF CANAL
 3. EXCAVATION/ DIVERSION
 4. EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)
 5. CONSTRUCTION OF BRIDGES
 6. LINING OF WATER 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:

Signature

PARAMETERS OF ENVIRONMENTAL/SOCIAL IMPACTS	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS
<ul style="list-style-type: none"> If yes, is there any drainage system present in the area? 				
<ul style="list-style-type: none"> Is the area under threat to soil salinity? 				
<ul style="list-style-type: none"> Is there any soil erosion risk in the project area? 				
<ul style="list-style-type: none"> Does the canal/ Disty/ Minor come in flood zone? 				
BIOLOGICAL ENVIRONMENT				
<ul style="list-style-type: none"> Are there trees, crops, forest, gardens and other vegetation resources of special importance present in area? 				No of trees, forest, gardens Type Area----- acres
<ul style="list-style-type: none"> If yes, then who is the owner of trees, forest, crops and gardens? 				Government department Private/ local persons
<ul style="list-style-type: none"> Is there cutting of trees and clearance of vegetation involved due to activity? How many? 				No of trees
<ul style="list-style-type: none"> What number and percentage of trees, forest and gardens are going to be uprooted? 				Number %
<ul style="list-style-type: none"> What type of wildlife is present in the area? 				Type No. of species
<ul style="list-style-type: none"> Are there any endangered/ rare species in the area? 				Type
<ul style="list-style-type: none"> Are there any types of environmental hot spots? 				Protected areas, Wetlands, National park, Grazing areas, Game reserve, Wildlife sanctuary
SOCIAL ENVIRONMENT				
<ul style="list-style-type: none"> Has the community been involved in consultation? 				
<ul style="list-style-type: none"> What is %age of the responded community? 				Agreed %age Disagreed %age

CHECKLIST FOR IDENTIFICATION OF S & E IMPACTS DURING REHABILITATION / REMODELING / MAINTENANCE OF CANALS / DISTRIBUTARIES / MINORS

MAJOR PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
LAND ACQUISITION	PHYSICAL 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 				
	<ul style="list-style-type: none"> • Loss of land/ ownership 				
CLOSURE OF CANAL	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Water availability 				
	BIOLOGICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Damage to forests/game reserves / national parks 				
	<ul style="list-style-type: none"> • Disturbance to wild animals and birds etc 				
	<ul style="list-style-type: none"> • Damage to wet lands 				
	<ul style="list-style-type: none"> • Damage to fisheries / aquatic life 				
SOCIAL ENVIRONMENT					

MAJOR PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	<ul style="list-style-type: none"> Loss of crops/ trees/ orchards 				
EXCAVATION/ DIVERSION	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"> Damage to forests/game reserves / national parks 				
	<ul style="list-style-type: none"> Disturbance to wild animals and birds etc 				
	<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	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> Dust Pollution 				

MAJOR PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
(PROVISION, DRESSING, RESHAPING AND COMPACTION)	<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 Deterioration of scenic/aesthetic quality 				
CONSTRUCTION OF BRIDGES	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> Noise and vibration 				
	SOCIAL ENVIRONMENT				
LINING OF WATER CHANNEL	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> Affect on water availability 				
	<ul style="list-style-type: none"> Affect on groundwater recharge 				

MAJOR PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	<ul style="list-style-type: none"> <li data-bbox="443 342 835 375">• Affect on groundwater quality 				
	<ul style="list-style-type: none"> <li data-bbox="443 407 653 440">• Dust Pollution 				
	<ul style="list-style-type: none"> <li data-bbox="443 472 716 505">• Noise and vibration 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> <li data-bbox="443 602 674 634">• Threat to health 				

ADOPTED MITIGATION MEASURES

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

Name and Signature of executing officer:

Date:

MONITORING / EVALUATION FORM

Name of Project/Channel: _____

Location of Project/Channel: _____

Project Stage	Planning PC-I	Execution	
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Project Duration _____

Name and designation of executing Officer _____

Cell # _____

e-mail _____

	MAJOR PROJECT ACTIONS/ACTIVITIES	MITIGATION MEASURES	RESULTS INDICATORS	MONITORING RESPONSIBILITY
1.	LAND ACQUISITION			
2.	CLOSURE OF CANAL			
3.	EXCAVATION/ DIVERSION			
4.	EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)			
5.	CONSTRUCTION OF BRIDGES			
6.	LINING OF WATER CHANNEL			

Name and Signature of executing officer: _____

Date: _____