



CHECKLIST FOR CONSTRUCTION OF NEW CANAL / DISTRIBUTARY AND MINOR

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 of canal, 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 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.

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

Ethnic minority: Less numbers in prevailing caste system (religious) of that village

Vulnerable groups: Groups of people whose living standard are below than the recommended criteria. These groups include nomadic, squatters, disabled, child labor, bonded labor and farm labor, women headed household etc

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. EXCAVATION
3. EARTH WORK (PROVISION, DRESSING, RESHAPING AND COMPACTION)
4. CONSTRUCTION OF BRIDGES
5. 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:

Date:

PRIMARY BASELINE DATA COLLECTION FOR CONSTRUCTION OF NEW CANAL / DISTRIBUTARY AND MINOR

PARAMETERS OF ENVIRONMENTAL/SOCIAL IMPACTS	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS		
PHYSICAL ENVIRONMENT						
• Is the soil suitable for agriculture?				Fertile land	Barren	Waste land
• What is the type of soil?				Sandy	Clay	Silt
• Is soil salinity present in the area?						
• What is the source of drinking water in the area?				Surface water	Ground water	
• Is the quality of ground water suitable for drinking and for agriculture purposes?				Sweet	Brackish	
• Is water table near to ground? How much depth?				Feet		
• Is there present any drainage system in the area?						
• Is there any soil erosion risk due to topography?						
• Does the proposed area come in flood zone?						
• Is the proposed canal passing through the industrial area?				No of industrial units	Type	
BIOLOGICAL ENVIRONMENT						
• Are there trees, forest, gardens and other vegetation resources of special importance present in area?				No of trees, forest, gardens	Type Area----- Acres	

PARAMETERS OF ENVIRONMENTAL/SOCIAL IMPACTS	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS		
• If yes, then who is the owner of trees, forest, gardens?				Government department	Private/ local persons	
• What number and percentage of trees, forest and gardens are going to be uprooted?				%		Number
• What type of wildlife present in the area?				No of Species		Type
• Are there any environmental hotspot /s in proposed area?				Protected areas, National park,	Wetlands, Grazing areas,	Game reserve, Wildlife sanctuary
• Are there any fish farm/ hatchery in the area?						
• What is the area of fish farm/ hatchery and how far it is from the project?				----- Acres		Distance from project
SOCIAL ENVIRONMENT						
• Has the community been involved in consultation?						
• What is %age of the responded community?				Agreed %age		Disagreed %age
• Is land acquisition necessary? What is the area?				Voluntary ----- acres		Involuntary ----- acres
• Has it been documented?						
• Is there any displacement of people, their households, assets or livelihoods?				No. Type		
• Whether the resettlement of people is involved?				No of people		No of households
▪ Is there loss of any infrastructures/ utilities?				Road Railway line	Gas pipeline Sewerage line	Telephone line Others

PARAMETERS OF ENVIRONMENTAL/SOCIAL IMPACTS	YES	NO	LIKELY	REMARKS WHERE POSSIBLE, PROVIDE DETAILS		
<ul style="list-style-type: none"> Is there any type of encroachment present on proposed area? 				No. of houses	No. of Shops	Other structures
<ul style="list-style-type: none"> Are squatters present in the activity area? 						
<ul style="list-style-type: none"> Does project affect any ethnic minority group? 						
<ul style="list-style-type: none"> Is there any affect on vulnerable groups due to project? 						
<ul style="list-style-type: none"> Is there any division of land involved in the project? 				No of affected persons		
<ul style="list-style-type: none"> Is there any type of archaeological, religious or historical sites? 				No.	Type	
<ul style="list-style-type: none"> What is the scenic/aesthetic quality of the area? 				Excellent	Good	Poor
<ul style="list-style-type: none"> Are the agricultural extensions services being rendered by the Agriculture department in the area? 						

CHECKLIST FOR IDENTIFICATION OF S & E IMPACTS DURING CONSTRUCTION OF NEW CANAL / DISTRIBUTARY AND MINOR

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

PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	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 				
CONSTRUCTION OF BRIDGES	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Noise and vibration 				

PROPOSED ACTIONS	PARAMETERS OF ENVIRONMENTAL/ SOCIAL IMPACTS	YES	NO	PROPOSED MITIGATION MEASURES	MITIGATION COST
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Loss of infrastructure/ Utilities 				
LINING OF WATER CHANNEL	PHYSICAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Affect on groundwater recharge 				
	<ul style="list-style-type: none"> • Affect on groundwater quality 				
	<ul style="list-style-type: none"> • Dust Pollution 				
	<ul style="list-style-type: none"> • Noise and vibration 				
	SOCIAL ENVIRONMENT				
	<ul style="list-style-type: none"> • Threat to health 				

ADOPTED MITIGATION MEASURES

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

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

Name and Signature of executing officer: _____

Date: _____