

# **SINDH BARRAGES IMPROVEMENT PROJECT (SBIP)**

## **Social Management Framework**

**Updated in December 2017  
for Additional Financing to  
Rehabilitate Sukkur Barrage**

### **Executive Summary**

**Sindh Irrigation Department  
Government of Sindh**

**SINDH BARRAGES IMPROVEMENT PROJECT**  
**Social Management Framework**  
**Executive Summary**

**Introduction.** Guddu Barrage, located in the district of Kashmore in the north of Sindh Province, was constructed during 1957-1962 and has shown deterioration in the superstructure, weakness of barrage gates and corrosion of head regulator gates. In addition, the current configuration of the barrage is resulting in sedimentation upstream of the barrage which has reduced the capacity of the barrage to pass flood waters resultantly sediment being conveyed to off taking canals affecting their capacity to carry irrigation supplies.

In order to address these issues, a feasibility study for the rehabilitation of Guddu Barrage was recommended under the Sindh Water Sector Improvement Project (WSIP Phase 1), which aims to improve the efficiency and effectiveness of irrigation water distribution in Sindh. WSIP Phase 1 is funded jointly by the Government of Sindh (GoSindh) and the World Bank (WB) and implemented by Irrigation Department (ID). As a result of the feasibility study, Sindh Barrages Improvement Project (SBIP) was developed to rehabilitate Guddu Barrage. SBIP is also jointly funded by GoSindh and WB and implemented by ID.

During SBIP feasibility phase, Environment and Social Management Plan (ESMP) and Social Management Framework (SMF) were prepared for Guddu Barrage rehabilitation. SMF is to provide overall planning and implementing guidance to address social issues that would arise during the course of the project planning and implementation, including possible land acquisition and resettlement, disruption of water supply due to possible extended canal closure and overall communication with stakeholders. The original SMF was composed of (a) Resettlement Policy Framework (RPF), (b) Social Action Plan (SAP), and (c) a Communication Strategy. SBIP has been under implementation since 2015.

In 2017, GoSindh requested WB for rehabilitation of Sukkur Barrage, which is 85 years old and is located near Sukkur and Rohri towns. The rehabilitation was prosed as Additional Financing (AF) to the on-going SBIP. The SMF, therefore, has been updated for the proposed AF. The key revisions include: (a) updating RPF, including revised entitlement matrix which is consistent with the recently updated WSIP matrix and (b) upgrading SAP to a standalone component (new Component E – Integrated Riverine Management Plan) under the proposed AF, which has resulted in a removal of SAP from this SMF.

**Civil Work under the Original Project:** Civil work for Guddu Barrage rehabilitation comprises mainly: (a) replacement of barrage gates and minor structural repair to regulators, (b) reconfiguration of left pocket divide wall, (c) Electromechanical equipment replacement, (d) River Training Works, (e) Renovation and construction of Staff and O&M Offices / control rooms.

A labour camp is constructed to accommodate up to 200 staff. The Contractor shall also establish a construction camp (including storage and batching plant), offices and a workshop. Following completion of the project, the Contractor shall hand over the workshop to the Client. The staff colony will be constructed on the right bank of Guddu Barrage. Replacement works will include the replacement of gates and hoist gears and associated electrical switch gear along with minor civil works including patching concrete over exposed reinforcement, resealing of joints and minor repairs to cracks on bridge piers. Gates on the head regulators shall be replaced one at a time, and/or during the canal closure period, leaving the remaining gates operational to reduce disturbance of irrigation supplies. Regarding the reconfiguration

of divide wall, it is proposed that before the construction of Left Pocket Divide Wall, the existing divide wall in front of Rainee Canal will be removed by using waterborne plant during the 2<sup>nd</sup> year of construction. The site will be restored after completion of construction works. During the project design, it has been identified by the project team that there may be a possibility of private land acquisition or resettlement due to project activities.

**Civil Work under the Proposed AF.** Under the proposed AF, the rehabilitation of Sukkur Barrage includes: (a) civil works to improve the strength of the barrage structure to enhance the life of the barrage; (b) mechanical works for improvement of gate operations for improved flood protection; (c) electrical works and monitoring systems for improved reliable operations of the barrage; (d) removal of sediments from the upstream of the barrage to prevent conveyance of sedimentation to the canals and improved flood control; and (e) removal of sediments from the heavily silted up right bank canals for improved irrigation flows.

No land acquisition or resettlement is anticipated under the current design. Desilting of Sukkur Barrage would remove about 1.5 million m<sup>3</sup> of sediments from left and right pockets. About 50% of the excavated materials will be placed in river, while the remaining will be transported and placed on downstream left bank placement areas. There is no cultivation or resident on these areas. In the upstream, there are middle bank island and silt-formed outer bank bela (shoal) and left bank bela. These three areas (about 170 acres) are cultivated by 40 squatters, 5 of whom live on the island with their families. The de-silting, however, would have no impact on their livelihoods. A small piece of left bank bela will be removed, but this piece is not cultivated. De-silting will be carried out around the island, thus, the middle bank island and outer bank bela will remain intact. Because squatters and residents are accessing the island or the outer bank bela by boat, contractor/PMO will provide their safe access either from the Barrage or through a dedicated access route marked by buoys. During the AF implementation, a location study may, however, identify removal of middle bank island and/or outer bank bela required. If so, an abbreviated RAP will be prepared according to the updated RPF.

Civil work also includes de-silting of about 4.24 million m<sup>3</sup> of sediments from three right bank canals: 25km from canal offtake for Rice canal and 7km from offtakes for Dadu and North Western canals. Because the first 7km of canal embankments are encroached by about 300 households, de-silting work will be confined within canals during regular closure to minimize social impact. The materials will be transported to downstream right bank placement area. There is no cultivation or resident on the area. In Rice canal, the materials after first 7km from offtake will be used to strengthen the embankment, as there is no encroachment.

**Socio-economic Baseline under the Original Project:** The project area of Guddu Barrage rehabilitation (original project) comprises districts of Kashmore and Ghotki (parts). The estimated population of the project area is 37,410. They live in joint family units. Major tribes are Mazari (50 percent) and Mirani (30 percent). Sindhi is the primary languages in the project area, while the literacy rate is as low as 6 percent. Tribal loyalties are strong in the area, and tribal leaders in the project and surrounding area, many of whom are politicians, are well respected and influential amongst the population. The area was troubled by a conflict between the Mazari and neighbouring Khosa tribes in 2010 and 2011, but following collaboration between the tribal leaders at the end of 2011, the situation has improved.

The major employment in the area is from agriculture sector and as general labourers. As a result of industry on the right bank of Guddu Barrage, a large number of unskilled labourers are available within the project and surrounding area. The education and income level in the project and surrounding area is typically low.

Agriculture is commonly practiced in the project and surrounding area, with a number of small farmers working on owned or rented land growing sugarcane, rice, cotton and vegetables as well as grazing livestock. Women and girls are commonly involved in all aspects of agriculture.

Access to social amenities in the project and surrounding area is low. Electricity supply is available however access to gas supply, drinking water (other than from ground water pumps installed by communities), sewerage, drainage and health care facilities is very limited. A number of schools are available in the project and surrounding area but are generally lacking staff and/or resources.

The command area of the Ghotki and Desert Pat Feeder Canals depend on Guddu Barrage for the supply of irrigation water year round, other than for a scheduled annual maintenance period of up to four weeks. As the ground water in the command area of Desert Pat Feeder is saline and not suitable for drinking, much of the command area also depends on the canal water as their source of drinking water. Guddu Barrage also maintains a supply of irrigation water to the command area of Beghari Sindh Feeder Canal from May to October only.

**Socio-economic Baseline under the Proposed AF.** The project area for Sukkur Barrage rehabilitation under the proposed AF is Sukkur and Rohri towns with a total population of 1.4 million. Sukkur is the third largest city in Sindh Province, after Karachi and Hyderabad. The total gross commanded area (GCA) of Sukkur Barrage is 3.33 million ha (8.24 million acres) in middle and lower Sindh Province, served by the seven off-taking canals: Nara, Khairpur East, Rohri and Khairpur Western Canals on the left bank, while Dadu, Rice and North Western canals on the right bank. In Sukkur and Rohri towns, the biggest segment of population is Sindhi (71%), followed by Muhajir (16%), Pashtoon (3%), Seraiki (1%) and Balochi (1%). Sindhi is the most common language spoken in the command area (96%), and majority of the population are Muslims (96%). According to the socioeconomic survey in the command area, the literacy rate is 36%, and its ratio between male and female is 1.3:1. Primary sources of household income include agriculture (77%), government employment (13%), and labor/daily wage (10%). 58% of these households also have secondary sources of income, such as labor, livestock, and trade. In terms of agriculture, wheat is a dominant crop, followed by cotton, rice and sugarcane. 29% of surveyed villages have orchards, such as dates, mango and banana. In 10 to 15 km radius of Sukkur Barrage, there are three traditional fishing villages of about 500 households. Because of overall reduction in fish in Indus, number of households stopped finishing and depend on labor on farm or at fish ponds.

**Updated Resettlement Policy Framework (RPF):** Under the original project, the project design team carried out detailed screening and assessment of project potential impacts of land acquisition and resettlement. They indicated that the original project was designed to include rehabilitation and repairing works of the barrage structure and replacement of mechanical works and there would not be any civil works involved. These would not require any land acquisition or resettlement. Therefore, a RPF was prepared in compliance with World Bank policy to guide resettlement planning for any unanticipated land acquisition.

The RPF is prepared in compliance with the laws of Pakistan and the Bank's safeguards policy on involuntary resettlement. In the event that involuntary resettlement issues are identified, Resettlement Action Plans (RAPs) will be prepared consistent with this policy framework and will be submitted to the Bank for approval.

RPF specifies that implementation of any works requiring a RAP shall not commence before necessary measures for resettlement and compensation are in place according to steps identified in this RPF. These measures will include provision for compensation and other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required and livelihood restoration measures. RPF also provides details of eligibility criteria, categories of affected persons and methods to establish cut-off dates. An entitlement matrix has been included in RPF to elaborate the types of losses, application, definition of entitled person and entitlement policy. Calculation for compensation payment and provision of different types of allowance, i.e., transportation, livelihood, and vulnerable allowances, has been specified in RPF.

Following completion of the final designs, a re-assessment of resettlement requirements shall be required. Should this assessment identify any involuntary resettlement, WB Operational Policy (OP) 4.12 calls for the preparation of individual RAPs that must be consistent with this RPF. RPF sets out complete procedures and guidelines for screening of involuntary resettlement and preparation and approvals for RAPs. Thus far, an abbreviated RAP has been prepared under the original project, for river training works to resettle 16 affected households from embankment. The RAP is under implementation.

Under the proposed AF, the SBIP RPF has been updated, in case land acquisition or resettlement may be required. Planned civil work for Sukkur Barrage rehabilitation does not anticipate land acquisition or resettlement. The revised RPF includes an updated entitlement matrix (attached Table 1), which has been made consistent with that of WSIP, which is also carrying out canal rehabilitation in the command areas of Guddu and Sukkur Barrages.

**Updated Communication Strategy:** A communication strategy was included in SMF and updated for the proposed AF, with objectives to facilitate the project implementation by engaging populations in project and command areas (primary stakeholders) of Guddu and Sukkur Barrages through regular consultations. Government departments, private sector, and NGOs are secondary stakeholders that are important intermediaries in the project delivery process or those who influence or are indirectly affected by the project. Under the original project, government departments include Baluchistan Irrigation Department, as the command area extends to Nasirabad and Jafarabad districts of Baluchistan Province. Communication matrix was developed and updated to include stakeholders for the proposed AF. The matrix specifies information and message to be conveyed, communication means, timings and the corresponding frequency. Under the original project (Guddu Barrage rehabilitation), considering low literacy rate in the project area and diversity of spoken languages in command area (Sindhi, Balochi, Urdu and Siraki), consultation is the most effective means of communication, which also ensures feedback from these populations. Likewise, consultations will be most effective in command areas of Sukkur Barrage. However, the project area is in Sukkur town with higher literacy rate and better access to media, mobile, and internet. The updated Strategy considers use of various media for communication outreach, such as traffic management.

**Implementation Arrangements:** The PMO established under the Secretary of the Irrigation Department (ID), Government of Sindh monitors and coordinates all project implementation activities under the original project, including implementation of the SMF and the abbreviated RAP. PMO has offices in Karachi and Sukkur. Environment and Social Unit (ESU) has been set up in Sukkur and is responsible for SMF implementation with a dedicated communication

specialist to implement the Communication Strategy. The RAP has been prepared and implemented by PMO as per the RFP with support from Construction Supervision Consultant (CSC). The implementation arrangements remain the same for the proposed AF.

**Grievance Redress Mechanism:** SBIP has developed a Grievance Redress Mechanism (GRM) with procurement and community tracks. While Procurement GRM specifically addresses project-level procurement related complaints, Community GRM (CGRM) handles all other project-related complaints, including the implementation of environment and social safeguards, mainly from communities in project and command areas of Guddu Barrage and other stakeholders. CGRM has established a Complaint Cell to address complaints that may arise from Guddu Barrage rehabilitation at PMO in Sukkur. The Cell is chaired by Deputy Project Director. If a complaint is not resolved locally, it could be escalated to a state-level Grievance Redressal Committee and could further be escalated to the SBIP Project Steering Committee (PSC). CGRM will be expanded to cover the proposed AF.

**Monitoring and Evaluation:** Monitoring shall be carried out both internally and externally. Internal monitoring will be undertaken by PMO and Project Coordination and Monitoring Unit (PCMU) under Planning and Development Department (PDD). External, third party monitoring is provided by the Monitoring and Evaluation Consultant (MEC) of the Project. During internal monitoring, the information will be collected from the project site and assimilated in the form of a monthly progress report to assess the progress and results of the SMF implementation, and adjust the work progress, where necessary, in case of any delays or problems. The report shall be submitted to the Head of PMO. MEC will be appointed under the project and will have environmental and social experts. It shall carryout intermittent third party monitoring of the implementation of the SMF, any RAP against the proposed programme, and the Environmental and Social Management Plan. The MEC shall complete reports on independent audits, circulated to the PMO, ID, GoSindh, WB and CSC, where appropriate. The evaluation of the MEC shall be in the form of a single final report to be issued to the PMO one year following the completion of civil works on the project. The arrangements remain the same under the proposed AF.

**Cost Estimates:** The indicative cost estimates for the updated SMF is US\$ 1.5 million for both the original project and the proposed AF.

**Table 1: Entitlement Matrix**

Type of Loses	Application	Definition of Entitled Person	Entitlement Policy
1 Structures (residential, religious or institutional) and hand pumps	Partial loss of structure and the remaining structure still viable for continued use	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Cash compensation for affected part of the structure at replacement value; and Allowance to cover repair cost of the remaining structure.
		Tenant / leaseholder in the partially affected structure	Cash compensation to cover proportional reimbursement for un-expired lease period
	Entire loss of structures or where only partial impact, the remaining structure is rendered unviable for continued use	Legal owner of the affected structure with valid title or customary right to land at which it is sited	Cash compensation for entire structure at replacement value, Or: Structure of equivalent standard in acceptable location
			Transport allowance for moving to new location (current rate)
		Tenant / leaseholder in the affected structure	Transition allowance equivalent to three-month rent (current rate)
			Transport allowance for moving to new location (current rate)
Owner of affected structure without title or right to land at which it is sited	Cash compensation for entire structure at replacement value OR Structure of equivalent standard in acceptable location Transport allowance for moving to new location (current rate)		
2 Structures (commercial)	Partial loss of shop/cabin and the remaining structure still viable for continued use	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Cash compensation for affected part of the structure at replacement value Allowance to cover repair cost of the remaining structure Compensation for loss of income as per #8
		Tenant / leaseholder in the partially affected structure	Cash compensation to cover proportional reimbursement for un- expired lease period Compensation for loss of income as per #8
	Entire loss of shop/cabin or where only partial impact, the remaining	Cash compensation for entire structure at replacement value,	

		structure is rendered unviable for continued use	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Or: Structure of equivalent standard acceptable to PAP Transport allowance for moving business to new location (current rate) Compensation for loss of income as per #8
			Tenant / leaseholder in the affected structure	Transition allowance equivalent to three months' rent (current rate).  Transport allowance for moving business to new location (current rate)  Compensation for loss of income as per #8
3	Land (residential, commercial, industrial, religious or institutional - excluding assets)	Partial loss of land with remaining land sufficient for continued use/habitation	PAPs with valid title or customary or usufruct rights Tenant or lease holder of lost land	Cash compensation for affected portion of land at replacement value Reimbursement for loss of income for the un-expired lease period
		Loss of land without sufficient remaining land for continued use/habitation	PAPs without title (Squatter/ Informal Settlers) PAPs with valid title or customary or usufruct rights Tenant or lease holder of lost land	N/A, however, vulnerable allowance may apply (see below) An equivalent area of land of similar characteristics and access to facilities in an acceptable location, OR Compensation as per Pakistan Land Acquisition Act Transport allowance for moving to new location (current rate) An equivalent area of leased land for un-expired lease period, OR Reimbursement for un-expired lease period Transport allowance for moving to new location (current rate)
			PAPs without title (Squatter/ Informal Settlers)	N/A, however, vulnerable allowance may apply (see below) Transport allowance for moving to new location (current rate)
4	Land (agricultural)	Partial and permanent loss of land with remaining holding economically viable (greater than 0.5 acres)	PAPs with valid title or customary or usufruct rights Tenant, lease holder or sharecropper	Compensation as per Pakistan Land Acquisition Act Cash compensation equivalent to market value of gross harvest for one year production or for the remaining period of tenancy/lease, whichever is greater. Compensation to be reduced to mirror share



				cropping agreements in place between owner and tenant (typically 50%); AND Cash compensation equivalent to market value of standing crops that could not be harvested. Compensation to be reduced to mirror share cropping agreements in place between owner and tenant (typically 50%)
			PAPs without title (Squatter/ Informal Settlers)	Cash compensation equivalent to market value of standing crops that could not be harvested. Vulnerable allowance may also apply (see below)
	Permanent loss of entire land holding, or partial loss where remaining holding is less than 0.5 acres	PAPs with valid title or customary or usufruct rights		Equivalent area of land with equivalent productive potential at location acceptable to PAP, OR Compensation as per Pakistan Land Acquisition Act
		Tenant, lease holder or sharecropper		Cash compensation equivalent to market value of gross harvest for one year production or for the remaining period of tenancy/lease, whichever is greater. Compensation to be reduced to mirror share cropping agreements in place between owner and tenant (typically 50%) AND Cash compensation equivalent to market value of standing crops that could not be harvested. Compensation to be reduced to mirror share cropping agreements in place between owner and tenant (typically 50%)
			PAPs without title (Squatter/ Informal Settlers)	Cash compensation equivalent to market value of standing crops that could not be harvested. Vulnerable allowance may also apply (see below)
5	Loss of structures (community)	Partial loss of structure and the remaining structure viable for continued use by current occupier	Community	Cash compensation for affected part of the structure at replacement value; AND Allowance to cover repair of the remaining structure
		Entire loss of structures or where only partial impact, but the remaining structure is rendered unviable for continued use	Community	Cash compensation for entire structure at replacement value
6	Loss of access to common resource and facilities	Loss of access to rural common property resources and urban civic amenities	Communities/ households	Replacement of common property resources/ amenities; OR Access to equivalent amenities/ services
7	Loss of trees	Affected trees	Owner of trees	Cash compensation equivalent to market value of on the basis of type, age and productive value
8	Loss of trade/ occupation or business incomes	Loss of trade/occupation or business due to dislocation or loss	Affected owner, employee, or labourer	Livelihood allowance equivalent to three months incomes/ wages in case of permanent or temporary

		of asset (except agricultural land or crops – see #4 or #5 respectively)		closure OR three-month minimum wage (whichever is greater)
9	Temporary Loses	Severely affected structures	PAPs made to shift temporarily from their present location	Entitlement will be in terms of rent allowance to cover the cost of alternate accommodation for the period of temporary displacement.
		Affected structures or other fixed assets	Affected PAPs	In cash, on the basis of replacement cost of material and labour without deduction for depreciation or salvageable materials for the damages during the period of temporary possession
		Temporary acquisition of land or asset	PAPs with valid title or customary or usufruct rights to land or asset	No compensation if returned to the original user in acceptable condition
				Monthly rent as per market value
				Compensation for damage or repair to original condition
Tenant, lease holder, and sharecropper	Proportional reimbursement of lease for period of acquisition OR Market value of gross harvest for production over period of temporary loss (rounded up to the nearest year). Compensation to be reduced to mirror share cropping agreements in place between owner and tenant (typically 50%)			
PAPs without title	Cash compensation equivalent to market value of standing crops that could not be harvested			
10	Loss of structure (institution)	Partial loss of structure and the remaining structure viable for continued use by current occupier	Institution	Repair under the civil works contract
		Entire loss of structures or where only partial impact, but the remaining structure is rendered unviable for continued use.	Institution	Replacement under the civil works contract
11	Loss of land (unused)	Partial but permanent loss of land	Legal owner with valid title or customary or usufruct rights	Compensation as per Pakistan Land Acquisition Act
		Permanent loss of entire land or where partial loss but the remaining land is less than 0.5 acre	Legal owner with valid title or customary or usufruct rights	Compensation as per Pakistan Land Acquisition Act
12	Any loss above	Vulnerability allowance	PAP classed as vulnerable regardless of legal entitlement to land	Vulnerability allowance equal to two months household income, or two months minimum wage (whichever is greater)
13	Households/persons affected by any unforeseen impact identified			The unforeseen impacts will be identified through surveys by PMO. The entitlements will be approved by PMO/SID and concurred by the World Bank

S

---

during RAP preparation or  
implementation

---