

Project Administration Manual

Project Number: 44372
Loan Number: {LXXXX}
March 2011

Islamic Republic of Pakistan: Flood Emergency
Reconstruction Project

CONTENTS

ABBREVIATIONS

I.	PROJECT DESCRIPTION	1
A.	Project Summary	1
B.	Impact and Outcome	1
C.	Outputs	1
II.	IMPLEMENTATION PLANS	2
A.	FERP Readiness Activities	2
B.	Project Implementation Schedule	3
III.	PROJECT MANAGEMENT ARRANGEMENTS	6
A.	FERP Implementation Organizations–Roles and Responsibilities	6
B.	Key Persons Involved in Implementation	11
C.	Project Organization Structure	12
D.	Implementation Arrangements	13
E.	Implementation Phasing of Subprojects	14
F.	Approval Process of New Subprojects	14
IV.	COSTS AND FINANCING	17
A.	Detailed Cost by Expenditure Categories	17
B.	Allocation and Withdrawal of Loan Proceeds	18
C.	Detailed Cost Estimates by Financier	20
D.	Detailed Cost Estimates by Outputs/Components	21
E.	Detailed Cost Estimates by Year	22
F.	Contract Awards and Disbursements S Curve	23
G.	Funds Flow Diagram	24
V.	FINANCIAL MANAGEMENT	25
A.	Financial Management Assessment	25
B.	Disbursement	25
C.	Accounting	27
D.	Auditing	27
VI.	RECRUITMENT OF CONSULTING SERVICES AND PROCUREMENT OF WORKS	28
A.	Retroactive Financing	28
B.	Recruitment and Procurement Management	28
C.	Initial Procurement Plan	30
D.	Outline Terms of Reference	38

VII.	SAFEGUARDS	48
A.	Social Safeguards	48
B.	Environment Safeguards	48
C.	Gender and Social Dimensions	53
VIII.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	54
A.	Project Design and Monitoring Framework	54
B.	Monitoring	57
C.	Evaluation	57
D.	Grievance Redress	58
E.	Reporting	58
VIII.	ANTICORRUPTION POLICY	59
IX.	ACCOUNTABILITY MECHANISM	59
X.	RECORD OF PAM CHANGES	59
	ANNEXES	
	Annex 1 – Selection Criteria for Subprojects	60
	Annex 2 – List of Proposed Subprojects	62
	Annex 3 – Resettlement Planning Document	75
	Annex 4 – Environment Assessment Review Framework	98
	Annex 5 – Gender Action Framework	123

Project Administration Manual Purpose and Process

This Project Administration Manual (PAM) describes the essential administrative and management requirements to implement the proposed emergency assistance loan for Project on time, within the budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. This Project was developed under the ADB's Disaster and Emergency Assistance Policies and Procedures and has to be implemented in accordance with it as set out in ADB Operations Manual (OM) Section D7/BP issued in June 2004. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in it.

The federal Planning Commission (PC), National Highway Authority (NHA), Planning and Development Department (P&DD), Irrigation, and Works and Services Departments of the Province of Sindh are responsible for the implementation of the ADB-financed projects in accordance with the Government and ADB's policies and procedures as agreed jointly between the Borrower and the ADB. ADB staff will provide support implementation including compliance by PC, NHA, provincial P&DD, Irrigation, and Works & Services departments of their obligations and responsibilities.

At loan negotiations, the Borrower and ADB shall agree to the PAM and ensure consistency with the Loan Agreement. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board Approval of the Project's Report and Recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions [PAIs]) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ADB	-	Asian Development Bank
DMF	-	design and monitoring framework
ESU	-	environment and social unit
EARF	-	environmental assessment and review framework
FERP	-	Flood Emergency Reconstruction Project
GAF	-	gender action framework
GoP	-	Government of Pakistan
GoS	-	Government of Sindh
IA	-	implementing agency
ICB	-	International competitive bidding
IIIA	-	International Institute of Internal Auditors
ICS	-	individual consultant selection
NCB	-	national competitive bidding
NGO	-	nongovernment organization
NHA	-	National Highway Authority
PEC	-	Pakistan Engineering Council
QBS	-	quality-based selection method
QCBS	-	quality- and cost-based selection method
OM	-	operations manual
P&DD	-	Planning and Development Department
PAI	-	Project Administration Instructions
PAM	-	project administration manual
PC	-	Planning Commission
PMC	-	Project Management Consultant
PMU	-	project management unit
PPMS	-	project performance management system
RRP	-	Report and Recommendation of the President
SPS	-	Safeguard Policy Statement
SSS	-	single source selection
TA	-	technical assistance
W&S	-	Works and Services Department

I. PROJECT DESCRIPTION

A. Project Summary

1. The Flood Emergency Reconstruction Project (FERP) comprises a \$650 million emergency loan to assist the Government in meeting urgent rehabilitation and reconstruction priorities focused on (i) roads (national and provincial roads and bridges); and (ii) irrigation, including drainage and flood-protection measures in Sindh Province. FERP has been designed according to the priorities identified in the damage and needs assessment prepared by Asian Development Bank (ADB) and the World Bank, in collaboration with the federal and provincial governments and other development partners and the Flood Reconstruction Plan 2010 prepared by the Planning Commission of Pakistan.

B. Impact and Outcome

2. The impact of FERP is economic recovery from the devastating floods. Its outcome will be restoration of critical public and social infrastructure assets necessary to restore livelihood, access, and secure the social infrastructure services against future flooding.

C. Outputs

3. The FERP outputs¹ include

- (i) Component 1: National Highways Rehabilitation and reconstruction of about 793 km of flood-damaged national highways (including bridges) in all provinces and regions affected by the national flood in 2010. Where justified, cost-effective and technically feasible, the reconstruction and rehabilitation of such national highways may include improvements and flood resistance enhancements.
- (ii) Component 2: Provincial Roads - Rehabilitation and reconstruction of about 800 km of provincial roads (including bridges) in the Province of Sindh damaged by the national flood in 2010. Where justified, cost-effective and technically feasible, the reconstruction and rehabilitation of such provincial roads may include improvements and flood resistance enhancements.
- (iii) Component 3: Irrigation and drainage and flood protection infrastructure - Rehabilitation and reconstruction of provincial irrigation, drainage and flood protection infrastructure in the Province of Sindh damaged by the national flood in 2010, including barrages and river training works, canals, drains, civil channels, flood embankments and appurtenant structures; and construction of flood management structures.

¹ If cofinancing is provided by bilateral agencies during implementation phase of FERP, other sectors and provinces can also be included subject to ADB's agreement.

II. IMPLEMENTATION PLANS

A. FERP Readiness Activities

Indicative Activities	2010					2011				Responsible Party
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
1. Advance procurement actions										P&DD (NHA, Sindh ID and W&S)
2. Retroactive financing actions										NHA and Sindh
3. Establish FERP implementation arrangements										P&DD (NHA, Sindh ID and W&S)
4. PC-1 approval										PC
5. ADB Board approval										ADB
6. Government Budget inclusion										MOF and PC
7. Loan signing										ADB, EAD, GoS and NHA
8. Government legal opinion provided										MOL, NHA, GoS through EAD
9. Loan effectiveness										ADB

ADB = Asian Development Bank, FERP = Flood Emergency Reconstruction Project, ID = Irrigation Department, MOF = Ministry of Finance, MOJ=Ministry of Justice, NHA = National Highway Authority; P&D = Planning and Development Department, PC1 = Planning Commission Proforma 1, W&S = Works and Services Department.

B. Project Implementation Schedule

National Highways	2010					2011												2012												2013												2014				
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
Retroactive financing																																														
Advance contracting *																																														
Establish PMU within NHA																																														
Recruitment of Project Management, and Design and Construction Supervision Consultants																																														
Award of civil work contracts																																														
Construction of works																																														
Management of activities																																														
LARP activities																																														
Gender action framework key activities																																														
Environmental assessment and management activities																																														

* Existing procurement procedures will continue till 31 May 2011

Irrigation Department, Sindh	2010					2011												2012												2013					
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Retroactive finanncing																																			
Advance contracting *																																			
Establish PMU within Irrigation Department																																			
Recruitment of Project Management Consultants																																			
Award of civil work contracts																																			
Construction of works																																			
Management of activities																																			
LARP activities																																			
Gender action framework key activities																																			
Environmental assessment and management activities																																			

* Existing procurement procedures will continue till 31 May 2011

Works and Services Department, Sindh	2010					2011												2012												2013												2014				
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	11	12	1	2	3			
Retroactive financing																																														
Advance * contracting																																														
Establish PMU within provincial W&S Department																																														
Recruitment of Project Management Consultants																																														
Recruitment of Design Consultants																																														
Award of civil work contracts																																														
Construction of works																																														
Management of activities																																														
LARP activities																																														
Gender action framework key activities																																														
Environmental assessment and management activities																																														

* Existing procurement procedures will continue till 31 May 2011

III. PROJECT MANAGEMENT ARRANGEMENTS

A. FERP Implementation Organizations – Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Steering Committees	<ul style="list-style-type: none"> Oversee progress and guidance on the FERP implementation. Composition of the steering committee is provided in Table A1.
Planning Commission	<ul style="list-style-type: none"> Overall coordinating agency
Executing Agencies (EAs) <ul style="list-style-type: none"> National Highway Authority Provincial Government, Sindh through Planning and Development Department 	<ul style="list-style-type: none"> Overall responsibility for implementation of subprojects relating to national highways, and establishment and maintenance of grievance redress mechanism. Overall responsibility for implementation of subprojects relating to irrigation, drainage, and flood protection; and provincial roads; and establishment and maintenance of grievance redress mechanism.
Implementing Agencies (IAs) <ul style="list-style-type: none"> National Highway Authority/Project Management Unit (PMU, composition is provided in Table A2) 	<ul style="list-style-type: none"> Implementation of all subprojects relating to federal level national highways. Recruitment and supervision of project management consultants (PMCs) Prepare, implement, and monitor safeguards in accordance with the Land Acquisition and Resettlement Framework (LARF) and Environmental Assessment Review Framework (EARF), ADB's Safeguard Policy Statement (SPS) 2009, Loan Agreement and the Project Agreement. Establish environment and social units (ESU), one each in PMU, north zone office and south zone office. Establish a grievance redress mechanism with a dedicated grievance officer to address all subproject-related grievance in each zonal office. For approval of subprojects financing, conduct physical spot checks on safeguards and complete checklists for each subproject or section or road for which retroactive financing is being requested. Maintain all project accounts, and accurate records of both financial and physical progress with regards to all project components. Provide to the Asian Development Bank (ADB) in a timely manner quarterly and annual reports including annual financial statements duly audited as per the Loan Agreement. Carry out monitoring and evaluation regularly and on time. Procure civil works. Processing of payments to contractors. Operate imprest account Disseminate and publish procurements and contracts related

Project Implementation Organizations	Management Roles and Responsibilities
	<p>information.</p> <ul style="list-style-type: none"> • Conduct spot checks for physical verification of safeguards compliance and complete checklists for each subproject.
<ul style="list-style-type: none"> • Works and Services Department, Sindh/PMU (composition is provided in Table A2) 	<ul style="list-style-type: none"> • Prepare, implement, and monitor safeguards in accordance with the LARF and EARF, ADB's SPS, Loan Agreement and the Project Agreement. • Establish one ESU. • Establish a grievance redress mechanism with a dedicated grievance officer. • Recruit and supervise PMC and design consultant. • Maintain all project accounts, and accurate records of both financial and physical progress with regards to all project components. • Procure civil works. • Supervise execution of civil works. • Payments to contractors. • Operate imprest account. • Provide to ADB in a timely manner quarterly and annual reports including audited financial statements duly audited as per the loan agreement. • Carry out monitoring and evaluation regularly and on time. • Disseminate and publish procurements and contracts related information. • Conduct spot checks for physical verification of safeguards compliance and complete checklists for each subproject.
<ul style="list-style-type: none"> • Irrigation Department, Sindh/PMU (composition is provided in Table A2) 	<ul style="list-style-type: none"> • Procure civil works. • Supervise execution of works. • Payments to contractors. • Operate imprest account. • Recruit and supervise PMC. • Maintain all project accounts, and accurate records of both financial and physical progress with regards to all project components. • Establish one ESU. • Establish a grievance redress mechanism with a dedicated grievance officer. • Provide to ADB in a timely manner quarterly and annual reports including audited financial statements duly audited as per the loan agreement. • Conduct spot checks for physical verification of safeguards compliance and complete checklists for each subproject. • Carry out monitoring and evaluation regularly and on time. • Disseminate and publish procurements and contracts related information.
<p>Project Management Consultants (PMC)</p>	<ul style="list-style-type: none"> • Assist relevant IAs in preparing bid documents including design, review of designs/specifications; Update cost estimates. • Assist IAs in contract awards/bids evaluation.

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> • Support preparation, implementation, and monitoring of safeguard activities. • Support the IAs in complying with the LARF and EARF. • Support establishing a grievance mechanism and capacity development. • Assist IAs in Sindh in execution and supervision of works • Supervise execution of NHA works. • Certify physical completion of NHA works. • Certify contractual completion of NHA works. • Certify payments of NHA works. • Verify payments of Sindh's Works & Services and Irrigation works. • Help relevant IAs in maintaining all projects accounts. • Prepare all project reports including financial and physical progress reports to be submitted to higher level government authorities and ADB. • Prepare independent monitoring reports and submit them to the EA/IA and ADB. • Assists IA in disseminating and publishing procurements and contracts related information. • Responsible for field surveys, engineering studies, design, design review and preparation of engineering drawings for the flood-affected provincial roads.
Design Consultants (Works and Services, Sindh) ^a	<ul style="list-style-type: none"> • Responsible for field surveys, engineering studies, design, design review and preparation of engineering drawings for the flood-affected provincial roads.
Asian Development Bank (ADB)	<ul style="list-style-type: none"> • Provide technical and financial support and oversight in accordance with loan and project agreements; Provide guidance and assistance throughout project implementation particularly to assist in early and speedy implementation of the project.

^aUntil mobilization of PMC.

Table A.1: Steering Committee Composition

<p>Sindh Chairman</p> <p>Members</p>	<p>Additional Chief Secretary, Planning and Development Department</p> <ol style="list-style-type: none"> 1. Secretary, Works and Services Department 2. Secretary, Irrigation Department 3. Secretary, Finance Department 4. Secretary, Planning and Development Department (also serves as secretary of the Steering Committee)
<p>National Highway Authority (NHA) Chairman</p> <p>Members</p>	<p>Chairman, NHA</p> <ol style="list-style-type: none"> 1. Member, Planning 2. Member, Finance 3. Member, Aided Projects 4. Member, Operations 5. Member, Administration 6. General Manager (FERP, NHA HQ: also serves as secretary to the Steering Committee)

Table A.2: Composition of Project Management Units (PMUs)

National Highway Authority

Title	Positions
Member	1
General Managers	4
Project Director	10
Deputy Director	10
Assistant Director	10
Financial Management Advisor (to be financed from TA)	1
Monitoring & Evaluation Specialist (to be financed from TA)	1
Land Acquisition Collector	3

Sindh Works and Services Department

Title	Positions
Project Director	1
Deputy Director Procurement and Contract Administration	2
Deputy Director Finance and Accounts	1
Assistant Director	4
Monitoring & Evaluation Specialist (to be financed from TA)	1
Executive Engineers	4
Financial Management Advisor (to be financed from TA)	1
Sub-Divisional Officers	10

Sindh Irrigation Department

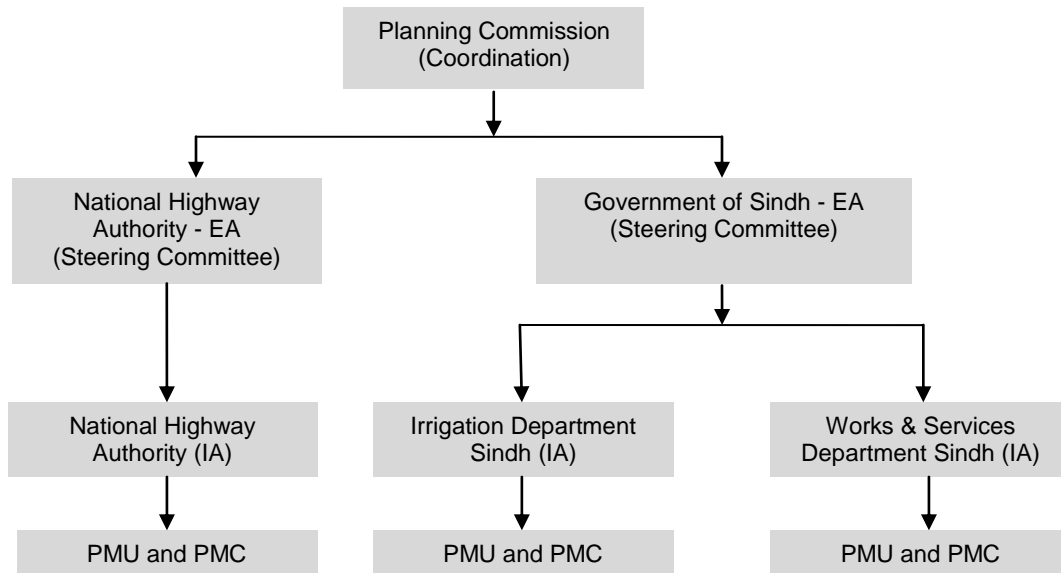
Title	Positions
Project Director	1
Deputy Director, Procurement	2
Deputy Director, Finance and Accounts	1
Assistant Director	3
Monitoring & Evaluation Specialist (to be financed from TA)	1
Financial Management Advisor (to be financed from TA)	1

TA = technical assistance

B. Key Persons Involved in Implementation

Executing and Implementing Agencies	Names of Key Personnel
National Highway Authority	Mr. Muhammad Junaid Position: Chairman Telephone Number: (92) 519 260410 Email address: nha04@comsats.net.pk
Provincial Government of Sindh through P&DD	Mr. Ishaq Lashari Additional Chief Secretary
Asian Development Bank-Pakistan Resident Mission (PRM)	Staff Name: Mr. Rune Stroem Position: Country Director Telephone. Number.:051-2087300 Email address: rstroem@adb.org
Focal Point, PRM	Staff Name: Mr. Shaukat Shafi Position: Senior Project Officer Telephone Number.: 051-2087300 Email address: mshafi@adb.org
Asian Development Bank, Manila	Staff Name: Mr. Ramesh Subramaniam Position: Director, Urban Services and Water Division Telephone No.: (632) 632-6444 Email address: rsubramaniam@adb.org
Focal Point, CWRD	Staff Name: Position: Telephone Number.: Email Address

C. Project Organization Structure



D. Implementation Arrangements

Aspects	Arrangements		
Implementation period	1 April 2011 – 31 March 2014		
Estimated physical completion date	31 March 2014		
Loan closing date	30 September 2014		
Management			
(i) Oversight body	CCI and NODMC at the National Level Steering committees at the NHA and Provincial Level		
(ii) Executing agencies	PC will act as the overall Coordinating Agency. The EAs will be NHA and the P&DD of the province of Sindh.		
(iii) Key implementing agencies	Component 1 – National Roads and Bridges: National Highway Authority at the Federal level Component 2 – Provincial Roads: Works and Service Departments of the Province of Sindh Component 3 – Irrigation Infrastructure: Irrigation Department, Province of Sindh		
Procurement	ICB and NCB	Several contracts under the 3 components, with minimum 20% contract above \$10 million (ICB)	\$677 million
	NCB Shopping	Vehicles Computers and other furniture/fixtures	\$0.85 million \$0.25 million
Consulting services—coordinated by combined committee of three IAs at the Federal level, managed by the respective IAs, and reporting to IAs and the NOMDC	Project Management Consultants (QCBS or QBS)	About 70 person-months of international and 4479 of national consultants' inputs	\$24.5 million
	Design consultants (QCBS/SSS)	About 86 person-months of national consultants' inputs	\$0.70 million
	Individual consultants (ICS)	About 50 person-months of national consultants' inputs	\$0.250 million
Disbursement	The loan proceeds will be disbursed in accordance with <i>ADB's Loan Disbursement Handbook</i> (2007, as amended from time to time) and detailed arrangements agreed upon between the Government and ADB.		

ADB = Asian Development Bank, CCI = Council of Common Interest, EA=executing agency, IA = implementing agency, ICB = international competitive bidding, ICS = individual consultant selection, NCB = national competitive bidding, NHA = National Highway Authority, NODMC = National Oversight Disaster Management Council, PMC = Project Management Consultants, P&DD = Planning and Development Department, QBS = quality-based selection, QCBS= quality-cost based selection, SSS = single-source selection.

E. Implementation Phasing of Subprojects

4. Subprojects will be grouped into (i) subprojects that can be prepared and implemented within the first 12 months (phase 1 subprojects), and (ii) subprojects that need longer preparation and implementation period but which will be completed within 12 and 36 months (phase 2 subprojects).

5. The phase 1 subprojects will mainly comprise the following works:

- (i) Works to immediately restore minimum functionality of the infrastructure (additional works may be undertaken through a phase 2 subproject);
- (ii) Works of simple nature not requiring detailed engineering surveys/investigations and designs;
- (iii) Works not requiring land acquisition and/or resettlement;
- (iv) Works where design, procurements and/or award are at the advance stage; and
- (v) Works to be completed before 2011 flood season.

6. The phase 2 subprojects will generally include more complex works, subprojects that require design inputs, and subprojects that may require land acquisition and/or resettlement.

F. Approval Process of New Subprojects

7. The project management unit (PMU) concerned will be responsible for preparation, submission, implementation, and benefits monitoring and evaluation of all subprojects. The implementing agency (IA) through the PMU will undertake the subproject review based on the selection criteria provided in Annex 1 to this PAM and submit it for the approval of the departmental committees.² After approval, the list of all such subprojects will be submitted to ADB for post review in case of subprojects below \$5 million and prior review for all subprojects above \$5 million. The selection of the first two subprojects of each IA, irrespective of the cost, approved by the respective committees will be subject to prior review and concurrence by ADB before commencement of detailed design. ADB will undertake periodic review of the selected or all subprojects if required during review missions or through specially hired third party consultants under the associated technical assistance (TA). ADB rest the right not to finance or ask for refund of financing for any subproject that does not meet the selection criteria. The IA will maintain the information on the subproject selection readily available for review by ADB or its consultants at all times.

- (i) If it is determined by ADB that any expenditures withdrawn from the Loan Account by or on behalf of the Borrower have been applied to finance ineligible expenditures (whether by way of retroactive financing or otherwise), including but not limited to

² Sindh Irrigation and W&S departmental committees will be chaired by the respective secretaries and comprise concerned chief engineer, superintending engineer, and Project Director, PMU. NHA departmental committee will be chaired by Member, NHA; and members will be nominated by NHA from its senior management (to be identified before loan negotiations). The project management consultants (PMCs) will verify subprojects selection prior to submission to departmental committees, after they are recruited.

expenditures in relation to subprojects that do not satisfy the subproject criteria or have not been approved according to the procedures set out in para. (7), the Borrower must promptly refund such amounts equal to such expenditures and accrued interest to ADB.

- (ii) Even if ADB has previously approved to the inclusion of the Subproject, ADB reserves the right to require refund of the ineligible expenditures financed if the approval or “no-objection” was based on incomplete, inaccurate, or misleading information or the Subproject has been substantially modified without ADB’s approval.

8. **Retroactive Financing:** The IAs will prepare proposals for retroactive financing in formats agreed to by the IA and ADB, which shall include detailed information on each proposed subproject and the related expenses proposed for retroactive financing. ADB will undertake random audit and checks to ensure compliance as explained in paragraphs 24-25.

9. If it is determined by ADB that any expenditures withdrawn from the Loan Account by or on behalf of the Borrower have been applied to finance expenditures in respect of contracts that do not satisfy the retroactive financing parameters in para. (7) or are subject to declaration of misprocurement by ADB in accordance with its Procurement Guidelines and the arrangements set out in this PAM, the Borrower must promptly refund such amounts equal to such expenditures and accrued interest to ADB.

10. Given the exceptional emergency nature of the FERP and the acute hardships facing the ultimate beneficiaries, ADB would consider retroactive financing for all subprojects that, in addition to the selection criteria provided in the PAM, have been procured using Pakistan Engineering Council (PEC) categories and qualification criteria for selecting the contractors and have awarded contracts based upon a percentage variance (plus or minus) from engineers’ estimates. Both these methods are being considered under the emergency that applies on the FERP and only apply to subprojects for which contracts were awarded before 31 May 2011 and are not acceptable for any procurement beyond that date.

- (i) Retroactive financing of payments to contractors as described above based upon formal confirmation of the IA on the physical progress, selection criteria and payment certificate verification according to procedures acceptable under “financial management” section of the PAM;
- (ii) No contracts will be considered eligible for retroactive financing where only a single offer/bid was submitted by a pre-qualified contractor;
- (iii) Retroactive funding will only be released on confirmation of the ADB sample (15%) or complete review by the ADB team confirming that the selection criteria, physical progress, price analysis and minimum procurement requirement acceptable to ADB have been met; and

- (iv) That contracts let as a result of this exercise only be considered as potentially eligible for ADB financing provided that they are awarded prior to 31 May 2011 – given the urgent need to ensure as much rehabilitation is completed prior to the start of the next monsoon (end June).

11. **Record:** The PMU will keep appropriate record evidencing its assessment of the subprojects' compliance with the selection criteria and implementation arrangements. ADB may request the PMU to make available such information on any subproject within two weeks. Disbursements for the relevant subprojects or other subprojects implemented by that PMU may be suspended until compliance.

12. **Compliance:** If it is determined by ADB at any time that the subproject selection criteria and/or implementation arrangements have not been complied with, the subproject will not be eligible for ADB financing. The Government will refund any loan proceeds already withdrawn in respect of such ineligible subprojects to ADB upon request by ADB.

IV. COSTS AND FINANCING

A. Detailed Cost by Expenditure Categories (in \$ million)

	Total Cost	% of Total Base Cost
A. National Highways		
1 Civil Works	249.3	34.5%
2 PMU - Equipment and Vehicle	0.6	0.1%
3 Consulting Services	18.6	2.6%
4 PMU - Incremental Administrative Cost	4.1	0.6%
Subtotal (A)	272.6	37.7%
B. Provincial Roads (Sindh)		
1 Civil Works	119.5	16.6%
2 PMU - Equipment and Vehicle	0.4	0.0%
3 Consulting Services	3.9	0.5%
4 PMU - Incremental Administrative Cost	1.5	0.2%
Subtotal (B)	125.3	17.4%
C. Irrigation (Sindh)		
1 Civil Works	220.1	30.5%
2 PMU - Equipment and Vehicle	0.1	0.0%
3 Consulting Services	2.7	0.4%
4 PMU - Incremental Administrative Cost	0.2	0.0%
Subtotal (C)	223.1	30.9%
Total Base Cost	621.0	86.0%
D. Contingencies		
1 Physical + Price	93.2	12.9%
Subtotal (D)	93.2	12.9%
E. Financing Charges During Implementation		
1 Interest During Implementation	5.9	0.8%
2 Commitment Charges	2.1	
Subtotal (E)	8.0	1.1%
Total Cost (A+B+C+D+E)	722.2	100.0%

B (i). Allocation and Withdrawal of Loan Proceeds (OCR)

CATEGORY			ADB FINANCING
Number	Item	Total Amount Allocated for ADB Financing (\$) <u>Category</u>	Percentage and Basis for Withdrawal from the Loan Accounts
1	Works	487,262,000	
1A	NHA	224,378,000	90% of total expenditure claimed
1B	Sindh (ID)	155,300,000	90% of total expenditure claimed
1C	Sindh (W&S)	107,584,000	90% of total expenditure claimed
2	Equipment and Vehicle	965,000	
2A	NHA	556,000	100% of total expenditure claimed*
2B	Sindh (ID)	90,000	100% of total expenditure claimed*
2C	Sindh (W&S)	319,000	100% of total expenditure claimed*
3	Consulting Services	22,678,000	
3A	NHA	16,723,000	100% of total expenditure claimed*
3B	Sindh (ID)	2,430,000	100% of total expenditure claimed*
3C	Sindh (W&S)	3,525,000	100% of total expenditure claimed*
4	Incremental Management Costs	5,207,000	
4A	NHA	3,687,000	100% of total expenditure claimed*
4B	Sindh (ID)	180,000	100% of total expenditure claimed*
4C	Sindh (W&S)	1,340,000	100% of total expenditure claimed*
5	Interest and Commitment Charges during construction	7,116,000	100% of amount due
6	Contingencies	76,772,000	
	Total	600,000,000	

*Exclusive of sales tax and custom duty

B. (ii) Allocation and Withdrawal of Loan Proceeds (ADF)

CATEGORY			ADB FINANCING
Number	<u>Item</u>	Total Amount Allocated for ADB Financing (\$) <u>Category</u>	Percentage and Basis for Withdrawal from the Loan Accounts
1	Works- Sindh Irrigation	42,800,000	90% of total expenditure claimed
2	Interest during construction	900,000	100% of amount due
3	Contingencies	6,300,000	
	Total	50,000,000	

C. Detailed Cost Estimates by Financier (in \$ million)

Item	Total	ADB (OCR)		ADB (ADF)		Government	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. National Highways							
1 Civil Works	249.3	224.4	90.0%			24.9	10.0%
2 PMU - Equipment and Vehicle ¹	0.6	0.6	90.0%			0.1	10.0%
3 Consulting Services	18.6	16.7	90.0%			1.9	10.0%
4 PMU - Incremental Administrative Cost	4.1	3.7	90.0%			0.4	10.0%
Subtotal (A)	272.6	245.3	90.0%			27.3	10.0%
B. Provincial Roads (Sindh)							
1 Civil Works	119.5	107.6	90.0%			12.0	10.0%
2 PMU - Equipment and Vehicle ¹	0.4	0.3	90.0%			0.0	10.0%
3 Consulting Services	3.9	3.5	90.0%			0.4	10.0%
4 PMU - Incremental Administrative Cost	1.5	1.3	90.0%			0.1	10.0%
Subtotal (B)	125.3	112.8	90.0%			12.5	10.0%
C. Irrigation (Sindh)							
1 Civil Works ²	220.1	155.3	70.6%	42.8	19.4%	22.0	10.0%
2 PMU - Equipment and Vehicle ¹	0.1	0.1	90.0%			0.0	10.0%
3 Consulting Services	2.7	2.4	90.0%			0.3	10.0%
4 PMU - Incremental Administrative Cost	0.2	0.2	90.0%			0.0	10.0%
Subtotal (C)	223.1	158.0	70.8%	42.8	19.2%	22.3	10.0%
Total Base Cost	621.0	516.1	83.1%	42.8	6.9%	62.1	10.0%
D. Contingencies							
1 Physical + Price	93.2	76.8	82.4%	6.3	6.8%	10.1	10.9%
Subtotal (D)	93.2	76.8	82.4%	6.3	6.8%	10.1	10.9%
E. Financing Charges During Implementation							
1 Interest During Implementation	5.9	5.0	84.8%	0.9	15.2%	-	0.0%
2 Commitment Charges	2.1	2.1	100.0%	-	0.0%	-	0.0%
Subtotal (E)	8.0	7.1	88.8%	0.9	11.2%	-	0.0%
Total Cost (A+B+C+D+E)	722.2	600	83%	50.0	7%	72	10%

¹Government financing is for financing of sales tax and custom duties

²ADB's financing is 90% by OCR or ADF loan, and Government financing is 10%

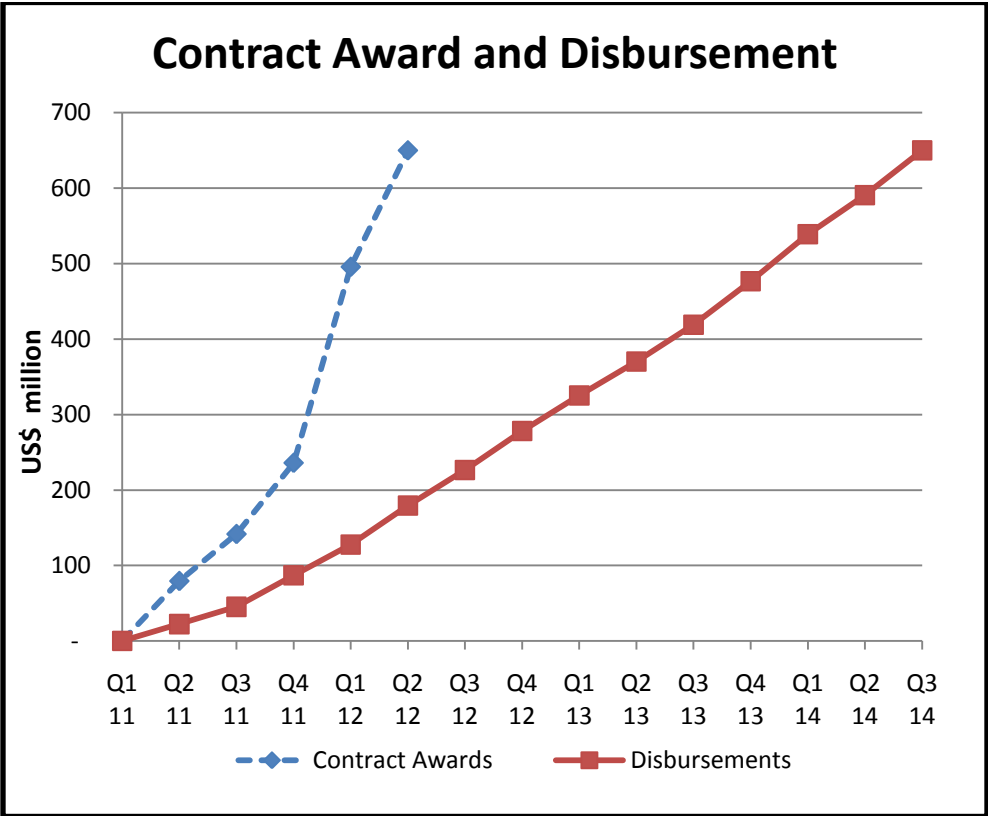
D. Detailed Cost Estimates by Outputs/Components (in \$ million)

Item		Total Cost	National Highways		Provincial Roads		Irrigation	
			Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. Investment Costs								
1	Civil Works	589.0	249.3	42.3%	119.5	20.3%	220.1	37.4%
2	PMU - Equipment and Vehicle	1.1	0.6	57.6%	0.4	33.1%	0.1	9.3%
3	Consulting Services	25.2	18.6	73.7%	3.9	15.5%	2.7	10.7%
	Subtotal (A)	615.2	268.5	43.6%	123.8	20.1%	222.9	36.2%
B. Recurrent Costs								
1	PMU - Incremental Administrative Cost	5.8	4.1	70.8%	1.5	25.7%	0.2	3.5%
	Subtotal (B)	5.8	4.1	70.8%	1.5	25.7%	0.2	3.5%
C. Contingencies								
1	Physical + Price	93.2	40.9	43.9%	18.8	20.2%	33.5	35.9%
	Subtotal (C)	93.2	40.9	43.9%	18.8	20.2%	33.5	35.9%
D. Financing Charges During Implementation								
1	Interest During Implementation	5.9	2.0	34.5%	1.0	16.2%	2.9	49.4%
2	Commitment Charges	2.1	1.1	52.4%	0.5	23.8%	0.5	23.7%
	Subtotal (D)	8.0	3.1	39.2%	1.5	18.2%	3.4	42.7%
Total Cost (A+B+C+D)		722.2	316.7	43.8%	145.6	20.2%	260.0	36.0%

E. Detailed Cost Estimates by Year (in \$ million)

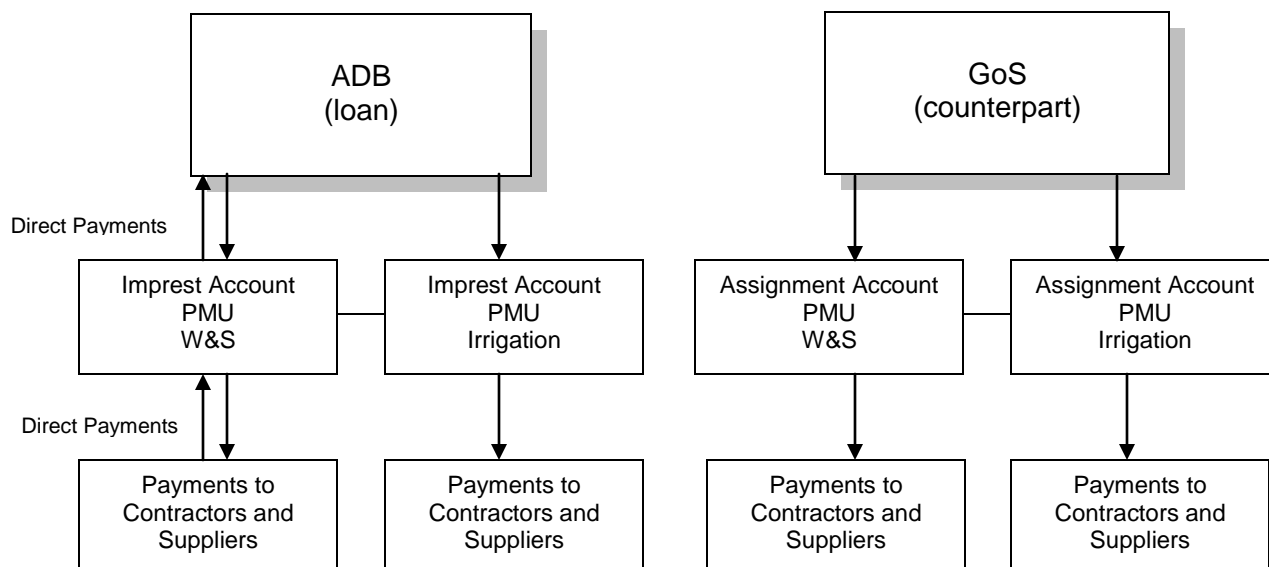
Item	Total Cost	2011	2012	2013	2014
A. National Highways					
1 Civil Works	224.3	11.6	50.3	61.9	100.5
2 PMU - Equipment and Vehicle	0.6	0.6			
3 Consulting Services	16.7	1.4	5.5	5.6	4.2
4 PMU - Incremental Administrative Cost	3.7	0.6	1.1	1.1	0.9
Subtotal (A)	245.3	14.2	56.9	68.6	105.6
B. Provincial Roads (Sindh)					
1 Civil Works	107.7	2.4	29.5	42.7	33.0
2 PMU - Equipment and Vehicle	0.3	0.3			
3 Consulting Services	3.5	0.3	1.2	1.2	0.8
4 PMU - Incremental Administrative Cost	1.3	0.2	0.4	0.4	0.3
Subtotal (B)	112.8	3.2	31.1	44.3	34.1
C. Irrigation (Sindh)					
1 Civil Works	198.1	56.8	75.7	58.3	7.2
2 PMU - Equipment and Vehicle	0.1	0.1			
3 Consulting Services	2.4	0.4	1.0	1.0	-
4 PMU - Incremental Administrative Cost	0.2	0.06	0.08	0.04	
Subtotal (C)	200.8	57.4	76.8	59.4	7.2
Total Base Cost	558.8	74.7	164.9	172.4	146.9
D. Contingencies					
1 Physical + Price	83.1	10.7	24.1	25.5	22.7
Subtotal (D)	83.1	10.7	24.1	25.5	22.7
E. Financing Charges During Implementation					
1 Interest During Implementation	5.90	0.37	1.20	2.06	2.26
2 Commitment Charges	2.10	0.84	0.73	0.32	0.22
Subtotal (E)	8.00	1.2	1.9	2.4	2.5
Total Cost (A+B+C+D+E)	650	87	191	200	172
%age of Total Cost	100.0%	13.3%	29.4%	30.8%	26.5%

F. Contract Awards and Disbursements S-curve

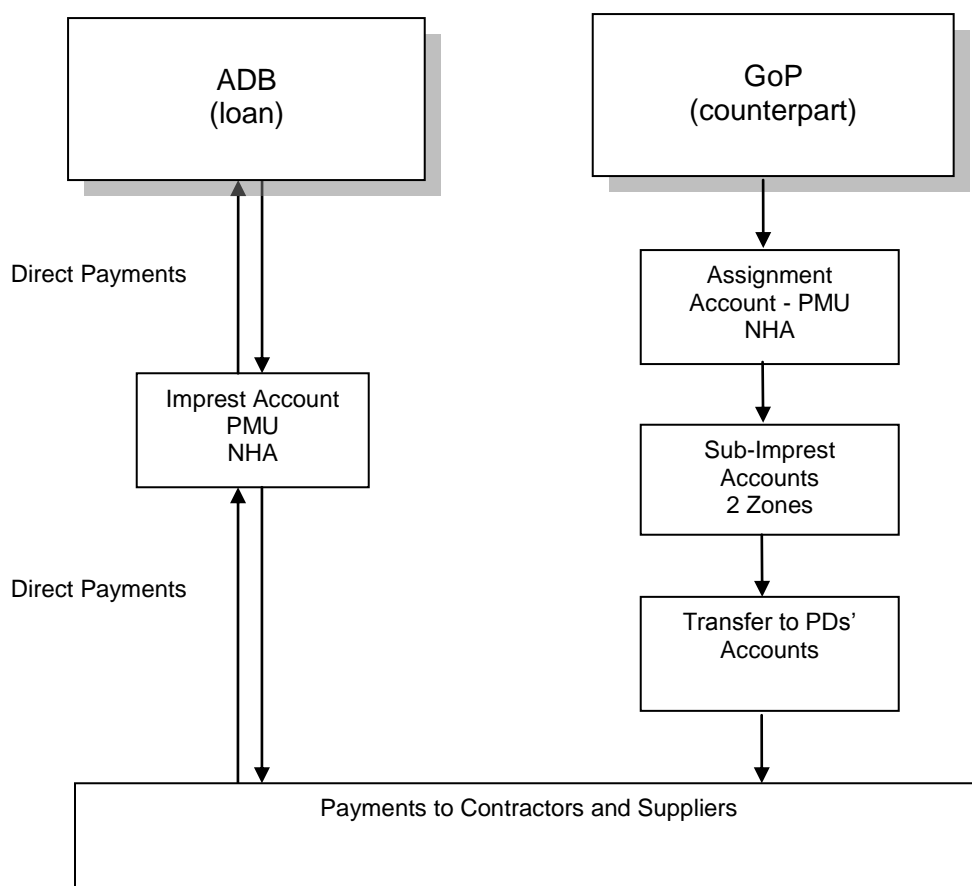


G. Funds Flow Diagram

Sindh Irrigation, and Works and Services



National Highway Authority



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

13. During project preparation a financial management assessment of the three IAs which shall be responsible for implementation of FERP was undertaken. The purpose of the assessment was to determine the robustness of the accounting systems, financial controls and internal audit arrangements, and the capability of the IAs to meet all the fiduciary requirements which are set out in the respective Loan and Project Agreements. Results of this assessment indicate that on the whole, the prevailing government financial, accounting, and auditing rules and systems meet the generally acceptable international accounting and auditing standards. Regulations have adequate internal control systems and financial reporting arrangements.

14. During the assessment, a need for improvement in financial reporting and internal control procedures was noted in the case of the IAs which are operating at the provincial levels. Specifically, the ability to set up and maintain separate project accounts, preparation of periodic financial statements, and weak internal control and internal auditing arrangements were noted in the case of the provincial IAs. The accounting systems and internal control procedures of the NHA are adequate and meet the generally accepted standards.

15. To overcome the shortcomings of the provincial IAs, a suitable consulting services provision has been made in the associated technical assistance (TA) whereby a senior financial management expert will be recruited immediately to set-up financial management, accounting, reporting, and internal auditing systems and procedures. Financial management specialists will be recruited for each of the three IAs to ensure that separate project accounts are maintained, accounts are prepared in a timely manner, internal control process is in place, and all payments are duly verified. Upon recruitment of the PMCs by the IAs, long-term experts will be placed in each of the PMU to take on the job of strengthening the financial accounting, reporting, and internal controls of the IAs. Specifically, the PMC's role will include preparation of financial statements, conduct of internal audit, and verification of contractor's bills. A complete assessment and review of internal controls and accounting systems of each IA will be undertaken by ADB after the first six months of project implementation. At that stage, if required, an independent firm of chartered accountants will be recruited by each IA for third party validation. Such firms will be required to perform the internal audit function and to certify payment requests for civil works and supply contracts which are endorsed by the PMC.

B. Disbursement

16. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007),³ and detailed arrangements agreed upon between the Government and ADB.

17. Pursuant to ADB's *Safeguard Policy Statement* (2009) (SPS),⁴ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All agencies will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) of the SPS to subprojects financed by ADB.

³ Available at: [http://www.adb.org/Documents/Handbooks/Loan Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan%20Disbursement/loan-disbursement-final.pdf)

⁴ Available at <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

18. Project Directors of each IA will have the authority to withdraw loan funds from the Loan Account to finance eligible project costs relating to their respective components. The NHA and Province of Sindh's Irrigation Department, and Works and Services (W&S) Department will use direct payment and imprest fund procedures. Expenditures incurred and paid for before the Effective Date, but not earlier than 12 months before the date of the Loan Agreement or on 7 August 2010⁵ subject to a maximum amount equivalent to 30% of the loan amount for that project component, which has been approved for retroactive financing by ADB will be disbursed under the reimbursement procedure. The statement of expenditure (SOE) procedure with a limit of \$100,000 equivalent per payment will be used under the reimbursement and imprest fund procedures and the respective PMUs will ensure that complete supporting documents are retained in the centralized PMU offices. Such SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit⁶.

19. Separate imprest accounts will be opened by the NHA and Province of Sindh's Irrigation Department, and Works and Services Department with the National Bank of Pakistan (NBP) under the OCR loan. The maximum ceiling of the imprest accounts "in aggregate", will not at any time exceed the estimated ADB-financed expenditures to be paid from the imprest account for the next six months or 10% of the loan amount, whichever will be lower. A separate imprest account will be opened by the Irrigation Department of Sindh under the ADF loan to finance eligible subprojects. The request for initial advance to the imprest account should be accompanied by an estimate of expenditure sheet⁷ setting out the estimated expenditures for the first six months of project implementation, and submission of copies of SBP approval and NBP's confirmation letter giving account details. For every liquidation and replenishment request of the imprest account, the IAs will furnish to ADB (i) statement of NBP's bank statement, and (ii) the Imprest Account Reconciliation Statement (IARS) reconciling the above-mentioned bank statement against the EA's records⁸.

20. Before the submission of the first withdrawal application, each IA should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The specimen signatures should be duly authenticated by the Economic Affairs Division prior to submission to ADB's Pakistan Resident Mission (PRM). The minimum value per withdrawal application is \$100,000, unless otherwise approved by ADB. The IA should consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing. All withdrawal applications will be submitted in original to the PRM for processing.

⁵ The date of the flood emergency has been taken as 7 August 2010, when the flood peaks according to the flood analysis of the DNA had already reached all four provinces; breaches and overflow had inundated major areas; unforeseen circumstances require immediate action had occurred; and local capacity had become insufficient to address and manage the traumatic events.

⁶ Checklist for SOE procedures and formats are available at:
http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

⁷ Available in Appendix 29 of the *Loan Disbursement Handbook 2007*.

⁸ Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

21. Counterpart funds of the IAs must be deposited in the respective Rupee Assignment Accounts to ensure that all Government fund accounting requirements are met. ADB will remit funds under the reimbursement procedure to the respective consolidated nonfood account No. 1 of the provincial government of Sindh, while NHA will receive funds under the reimbursement procedure in its own account.

C. Accounting

22. The IAs will maintain separate project accounts and records for the OCR and ADF loans and by funding source for all expenditures incurred on FERP. Project accounts will follow the guidelines and procedures prescribed in the New Accounting Manual issued by the Auditor General of Pakistan.

D. Auditing

23. The IAs will cause the detailed consolidated project accounts to be audited in accordance with the guidelines and procedures set out by the Department of Auditor General of Pakistan. Directors General Audit of Sindh will be responsible for auditing the accounts of the provincial IAs, while NHA accounts will be audited by Director General Audit (Works). The audited accounts will be submitted to ADB within six months after the end of each fiscal year by the EA. The annual audit report will include a separate audit opinion on the proper use of the imprest accounts and the SOE procedures and a Management Letter. The Government and the IAs have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

VI. RECRUITMENT OF CONSULTING SERVICES AND PROCUREMENT OF WORKS

A. Retroactive Financing

24. Advance contracting and retroactive financing will be subject to ADB's *Procurement Guidelines* (April 2010, as amended from time to time), in particular, paragraph 3.3 of the Procurement Guidelines. All national competitive bidding (NCB) flood-related and roads procurement contracts awarded *by 31 May 2011* may be eligible for advance contracting and retroactive financing.

25. All transactions proposed for retroactive financing will be subject to ADB review on a random sample basis, the review will include:

- (i) assessment of concerned IA's procurement capacity,
- (ii) procurement process employed,
- (iii) pre-qualification criteria,
- (iv) price verifications of awarded contracts against market norms,
- (v) random physical checks,
- (vi) IA's certification of physical progress, and
- (vii) satisfaction of the subproject selection criteria outlined in Annex 1.

26. Subject to the above provisions, up to 30% of the total ADB loan will be eligible for retroactive financing. No contracts will be considered for retroactive financing where a single bid was submitted by a prequalified contractor.

B. Recruitment and Procurement Management

27. **Procurement and Recruitment Procedures and Management.** The procurement of goods and works, and recruitment of consulting services will be carried out in a manner consistent with the simplified and expedient procedures permitted under the ADB *Disaster and Emergency Assistance Policy* and ADB *Guidelines for Procurement* (April 2010 and as amended from time to time) and ADB *Guidelines on the Use of Consultants* (April 2010 and as amended from time to time). Accelerated project implementation requirements under the FERP will test the procurement and recruitment capacity available in Pakistan. While ADB procurement and recruitment procedures for post-disaster reconstruction allow maximum flexibility emphasizing national over international procurement for all goods and civil works, experience has shown that relaxation of procurement procedures alone does not make procurement more efficient. At least as important is the efficiency of procurement management including streamlined decision making and enhanced communication within EAs/IAs, and between ADB and EAs/IAs. The FERP implementation arrangements allow dedicated resources for efficient procurement and third-party oversight on the process, supplemented by linkages to grievance redress system to address issues efficiently. Independent consultants hired through the TA will be placed in the IAs as observer on procurement process.

28. **Recruitment of Consultants:** The following types of consultants will be engaged under the FERP:

- (i) Three PMCs to be recruited and located in the PMU of each IA;
- (ii) Individual consultants and/or firms recruited and funded under the ADB associated technical assistance (TA) to provide services to each PMU; and
- (iii) National consulting engineering firms and /or individuals for design and, if required, early construction supervision prior to mobilization of the PMC.

29. The core consulting services will be the PMCs with one consortium for each of the three IAs recruited by using Quality-Based Selection (QBS) or Quality- and Cost-Based Selection (QCBS) – 90:10, and full technical proposal. It is anticipated that each successful PMC will be a consortium of international and national consulting firms. The contracts awarded to the selected PMCs will be “hybrid” partly based on ‘time’ and partly on ‘performance’. PMCs will be responsible for (i) overall management and coordination support to the federal and provincial IAs; (ii) procurement processing support; (iii) design and design reviews; (iv) construction supervision; (v) ensuring safeguard procedures are designed, planned, and implemented; (vi) monitoring financial control and disbursement procedures; and (vii) implementing the grievance redress system. The recruitment and mobilization of the PMCs may take six months.

30. In the interim period, prior to mobilization of the PMCs, the IAs may recruit a national consulting firm through single source selection or QCBS as a stop-gap arrangement, if required, to ensure design continuity and construction supervision. In addition, immediate support will be provided through the TA which will fund recruitment of a consulting firm or individual consultants contracted directly or through a firm, by ADB. This TA will: (i) assist in the preparation of documentation for recruitment of and ‘hybrid’ contracts for the PMC; (ii) support the IAs in the recruitment of the PMC; (iii) enhance NCB procedures, including competitive prequalification of groups of contractors; (iv) support ongoing design and services provided by IA-recruited and government-funded national consulting firms; (v) support preparation, implementation and monitoring of safeguard action plans, including consultations and social and gender analysis and implementation and monitoring of gender action plans; (vi) establishment of financial control monitoring and disbursement procedures; (vii) design of a grievance redress system; and (viii) provide oversight and guidance through the procurement process including observer status on procurement committees.

31. The following recruitment arrangements will apply, which are subject to prior review of ADB, and may be unilaterally revised by ADB, if needed.

- (i) Assignments below \$300,000 will be advertised for seven calendar days and apply Consultants Qualification Selection (CQS) method and biodata technical proposal (BTP);
- (ii) Assignments below \$1,500,000 will be advertised for 14 calendar days with a choice of selection methods (QCBS, QBS, LCS or FBS) applying simplified technical proposals (STP) and shortlists of three firms which comprise of national firms;
- (iii) Assignments above \$1,500,000 will be advertised for 30 calendar days with a choice of selection methods (QCBS, QBS, LCS or FBS) applying full technical proposals (FTP) and shortlists of six firms which may comprise of national and/or international firms;
- (iv) Single Source Selection (SSS) may be employed subject to ADB’s prior

- approval.
- (v) Firms and individuals selected under SSS will not automatically be held to have a conflict of interest and will be allowed to compete for downstream activity on ADB's approval.
- (vi) Clarifications may be sought for omissions in consultants proposals based upon the same processes and rules applicable to the procurement of goods and works.

32. **Procurement of Works:** International competitive bidding (ICB) and national competitive bidding (NCB) procedures will be used. For small and dispersed subprojects, groups of large, medium and small contractors will be identified, prequalified and retained for the duration of the FERP through competitive process for different regions defined by the IAs. These contractors will be invited to submit bids based on the bill of quantities (BoQs), worked out for each package, using bidding procedures acceptable to ADB. The prequalification will be open to new entrants periodically (every six months).

33. The following recruitment arrangements will apply, which are subject to prior review of ADB, and may be unilaterally revised by ADB, if needed.

- (i) NCB works threshold is increased from \$5 million to \$10 million and the NCB bidding period may be reduced to a minimum of 14 days.
- (ii) The ICB bidding period for goods and works may be reduced to a minimum 21 days.
- (iii) Direct contracting may be used subject to ADB prior approval.
- (iv) Subject to ADB prior review existing contracts may be varied by up to 100% of their value employing the same unit rates for emergency works proximate to the project site.
- (v) Bid security in the form of bank guarantees or cash deposit or bid securing declaration and insurance company bonds may also be accepted.
- (vi) Performance security will be required from pre-qualified contractors in the form of a bank guarantee, or cash deposit or bid security declaration. Insurance company bonds may be accepted for NCB procedures.
- (vii) Maximum number of four partners in a joint venture (JV).
- (viii) For contracts below \$25 million the average construction turnover requirements may be reduced to 1 times value over time provided that the bidder demonstrates adequate liquidity. Above this 1 1/4 times value will be employed.
- (ix) In the case of joint ventures, deficiencies in qualifications of a partner may be addressed through conditional awards provided that the proposed JV as a whole meets the aggregated criteria.
- (x) Standard payment terms will be reduced from 56 to 28 days.

C. Initial Procurement Plan

34. The initial procurement plan is illustrated overleaf and is inclusive of packages which the IA may request for retroactive financing.

Procurement Plan

Basic Data

Project Name: Flood Emergency Reconstruction Project (FERP)	
Loan Amount: \$650.0 million	Executing Agencies: National Highway Authority, and Provincial Government of Sindh
Date of first Procurement Plan: March 2011	Date of this Procurement Plan: March 2011

1. Process Thresholds, Review and 18-Month Procurement Plan

a. Project Procurement Thresholds

35. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works	
Method	Threshold
International Competitive Bidding (ICB) for Works	\$10,000,000 and above
International Competitive Bidding for Goods	\$1,000,000 and above
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods
Shopping for Works	Below \$ 100,000
Shopping for Goods	Below \$100,000

b. ADB Prior or Post Review

36. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement of Goods and Works		
Procurement Method	Prior or Post	Comments
ICB Works	Prior	ADB Standard Bidding documents
ICB Goods	Prior	
NCB Goods/Works	Prior review of first contract; Post review for succeeding contracts	
Shopping for Works	Post	
Shopping for Goods	Post	

Recruitment of Consulting Firms		
Type	Prior / Post	Comments
Quality- and Cost-Based Selection (QCBS)	Prior	80:20 or 90:10
Other selection methods: Quality-Based Selection (QBS), Consultants Qualifications (CQS), Least Cost Selection (LCS), Fixed Budget Selection (FBS), and Single Source Selection (SSS)	Prior	SSS will be reviewed on a case-by-case basis in accordance with ADB's Guidelines on Consultants (April 2010) as amended from time to time
Individual Consultants	Prior	

c. Goods and Works Contracts Estimated to Cost More Than \$1 Million

37. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months. This project will be implemented by two EAs and three IAs. EA-wise detail is given as under.

General Description	Contract Value \$ million	Procurement Method	Prequalification Of Bidders (y/n)	Advertisement Date (quarter/year)	Comments
1) National Highway Authority					
a) Road rehabilitation civil works (5 packages)	125	ICB	Y		Prior Review
b) Road rehabilitation civil works (32 packages) ^a	146	NCB	Y		Prior Review of first contract;
2) Works and Services Dept., Sindh					
a) Road rehabilitation civil works (24 packages)	138	NCB	Y		Prior Review of first contract
3) Provincial Irrigation Dept., Sindh					
a) Flood Protection, canal and drain (93 packages) ^b	253	NCB	Y		Prior Review of first contract

^aIn addition, NHA has an estimated \$15 million (215 contracts) for retroactive financing, out of which \$12.5 million (175 contracts) have been awarded while the rest are at various stages of procurement. These contracts are subject to ADB's post review procedures as laid down under retroactive financing in the PAM.

^bIncluding 39 contracts for retroactive financing of \$53 million.

d. Consulting Services Contracts Estimated to Cost More Than \$100,000

38. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value \$ million	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
1) National Highway Authority: a) Project Management Consultant (PMC)	18.6 ^a	QCBS (90:10) or QBS		International/ National	FTP/Prior
2) Works and Services Department, Sindh a) Project Management Consultant (PMC)	3.2	QCBS (90:10) or QBS		National	FTP/Prior
b) Design Consultant	0.71	QCBS (80:20)		National	BTP/Prior
3) Provincial Irrigation Department, Sindh a) Project Management Consultant (PMC)	2.7	QCBS (90:10) or QBS		National	FTP/Prior

^a In the event that design and/or construction supervision are required prior to mobilization of PMC, the IA with the approval of ADB may recruit two consulting firms for total contract value of about \$2.0 million (included in \$18.6 million), and will be recruited through simplified technical proposal (STP), which may continue for supervising certain subprojects of NHA even after recruitment of PMC

BTP=biodata technical proposal, FTP=full technical proposal, STP=simplified technical proposal

e. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

39. The following table groups smaller-value goods, works and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Value of Contracts \$ million (cumulative)	Number of Contracts	Procurement / Recruitment Method	Comments
Goods:				
Vehicles	0.854	3	NCB	First Contract Prior Review
Computers and others	0.199	9	Shopping	
Furniture/Fixtures	0.044	9	Shopping	Post Review
Individual Consultants ^a	0.250	10	ICS	Prior Review

ICS= individual consultant selection, NCB = national competitive bidding.

^aPrior to recruitment of PMC for NHA.

2. Indicative List of Packages Under the Project

40. The following table provides an indicative list of all procurement (goods, works, and consulting services) over the life of the project. Contracts financed by the Borrower and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative) \$ million	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Goods (Various)	1.097	21	NCB/Shopping	No	NCB- prior review for first contract; Shopping, post
Works	662	154	ICB/NCB	No	Prior/Post
1) NHA Road rehabilitation civil works	125	5	ICB	Yes	Prior
2) NHA Road rehabilitation civil works ^a	146	32	NCB	No	Prior followed by Post
3) Provincial Road rehabilitation civil works	138	24	NCB	No	Prior followed by post
4) Irrigation reconstruction works (Flood protection, canal and drain) ^b	253	93	NCB	No	Prior Followed by post
	Estimated Value \$ million (cumulative)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Consulting Services	25.46	14	QCBS (80:20,90:10) or QBS ICS	FTP/BTP	Prior
a) Project Management Consultant (PMC)	24.5	3	QCBS (90:10) or QBS	FTP	Prior (Advance action on recruitment by the EA)
b) Design Consultants	0.71	1	QCBS (80:20)	BTP	Prior
c) Individual	0.25	10	ICS		Prior

^aPlease refer to footnote a on page 32.

^bPlease refer to footnote b on page 32.

3. National Competitive Bidding

a. General

41. The procedures to be followed for national competitive bidding shall be those set forth in *Public Procurement Rules 2004*,⁹ and *Sindh Public Procurement Rules 2010*¹⁰ and with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of ADB's Procurement Guidelines.

b. Eligibility

42. The eligibility of bidders shall be as defined under Section I of ADB's *Procurement Guidelines April 2010* (as amended from time to time); accordingly, no bidder or potential bidder should be declared ineligible to ADB-financed contracts for other reasons than the ones provided by Section I of ADB's guidelines. Bidders must be nationals of member countries of ADB, and offered goods, works, and services must be produced in and supplied from member countries of ADB.

c. Prequalification

43. Normally, post qualification shall be used unless explicitly provided for in the loan agreement/procurement plan. Irrespective of whether post qualification or prequalification is used, eligible bidders (both national and foreign) shall be allowed to participate.

d. Bidding Period

44. The minimum bidding period is 14 days prior to the deadline for the submission of bids.

e. Bidding Documents

45. Procuring entities should use standard bidding documents for the procurement of goods, works and services acceptable to ADB.

f. Domestic Preference

46. No domestic preference shall be given for domestic bidders and for domestically manufactured goods.

g. Advertising

47. Invitations to bid shall be advertised in at least one widely-circulated national daily newspaper or freely accessible, nationally-known website. Bidding of NCB contracts estimated at \$500,000 equivalent or more for goods and related services or \$10 million equivalent or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.

⁹ National Highway Authority being a federal agency is to use Public Procurement Rules 2004.

¹⁰ Provincial departments of Sindh are to use Sindh Public Procurement Rules, 2010.

h. Bid Security

48. Where required, bid security shall be in the form of a bank guarantee from a reputable bank or bid security declarations and insurance company bonds.

i. Bid Opening and Bid Evaluation

- (i) Bids shall be opened in public.
- (ii) Evaluation of bids shall be made in strict adherence to the criteria declared in the bidding documents and contracts shall be awarded to the lowest evaluated bidder.
- (iii) Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.
- (iv) No bidder shall be rejected on the basis of a comparison with the employer's estimate and budget ceiling without ADB's prior concurrence.
- (v) A contract shall be awarded to the technically-responsive bidder that offers the lowest evaluated price and who meets the qualifying requirements set out in the bidding documents.
- (vi) No financial negotiations shall be permitted.

j. Rejection of All Bids and Rebidding

49. Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

k. Participation by Government-owned enterprises

50. Government-owned enterprises shall be eligible to participate as bidders only if they can establish that they are legally and financially autonomous, operate under commercial law and are not a dependent agency of the procuring agency. Furthermore, they will be subject to the same bid and performance security requirements as other bidders.

l. Right to Inspect/Audit

51. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

m. Fraud and Corruption

52. The Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

53. ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, an ADB-financed contract.

n. National Sanctions List

54. National sanctions list may be applied only with prior approval of ADB.

4. Review of Contract Modifications

55. ADB will review contract modifications in accordance with the procedures set forth in the loan agreements between the Borrower and ADB.

D. Outline Terms of Reference

1. Project Management Consultants (PMCs)

56. Each IA will engage a PMC team to strengthen their procurement capacity, support and help monitor design and construction supervision services, and support the preparation, implementation, and monitoring of safeguard action plans including consultations and social and gender analysis as well as implementation and monitoring of gender action plans. The PMC will also assist in the establishment of financial control monitoring and disbursement procedures.

57. The outline terms of reference (TOR) for each are given below¹¹.

a. National Highway Authority (NHA)

58. PMC services are required to review design and assist IA in design, construction supervision, reporting, performance monitoring, financial management, procurements, and management of civil works contracts, safeguards compliance, and implementation of subprojects.¹² The TOR stipulates the international and national consulting services required for the rehabilitation of flood affected National Highways, Motorways and Strategic Roads. Consultancy services are required to be covered for 36 months. About 2,893 person-months (key experts) of consultancy service would be required for the rehabilitation and reconstruction of 793 kilometers (kms) roads and bridges estimated to cost \$263 Million. The consultants will report to the Member appointed by NHA as head of the PMU Flood Emergency Reconstruction Project. The outline TOR for specialists/key experts are given below:

- (i) Team Leader/Project Manager (international, 36 person-months): Qualified civil engineer with at least 15 years of project management experience in road construction works, internationally as well as in Pakistan. It includes managing projects with wider geographic spread, a large team and large number of construction packages of varying size and complexities. He/she will have overall responsibility for the organization, conduct and delivery of consultancy services and reporting to NHA. PM will head the PMC and will work directly, and manage relations, with the NHA.
- (ii) Deputy Team Leader, Design (national, 12 person-months): Qualified civil engineer with at least 15 years experience of road design experience. He/she will guide the design work of the project based on the reconstruction strategy and will be responsible for day-to-day management of design works; and provide assistance to the Team Leader/Project Manager in reporting and coordination with client on design aspects of the project.

¹¹ TOR will be confirmed during the Inception Mission

¹² The selection criteria of subprojects is provided in Annex 1 while the list of proposed subprojects are in Annex 2.

- (iii) Procurement Specialist (national, 6 person-months): Qualified civil engineer with at least eight years experience of procurement especially on GoP and ADB procurement guidelines for works, goods, and services. He/she will be responsible for assisting in planning/scheduling of procurement actions, preparation of TORs, expression of interest (EOI) and prequalification notices, overall management of bid process which includes preparation/review of prequalification/bidding documents including request for proposals (RFP), designing of qualification/evaluation criteria based on input from the concerned departments and ensure technical as well as financial evaluation of bids/proposals in accordance with given evaluation criteria, prepare standard agreement and contract documents; review agreements and contracts prepared by others; and facilitate award of contracts. He/she will be responsible for dissemination of information on results of procurements and will be assisting in determining the supply side capacity of construction industry in Pakistan. He/she will also be responsible for procurement oversight.
- (iv) Contract Specialist (international, 18 person-months, intermittent): Qualified civil engineer with at least eight years international experience of contract administration/construction law. Experience of GoP and ADB contract agreements is preferable. He/she will be responsible for assistance in contract administration of all the works/supply contracts, taking timely contractual actions related to cost, time, and quality controls and finishing of the contracts, referral to the adjudication and arbitration in case of dispute.
- (v) Highway Engineer (national, 6 positions, 36 person-months): Qualified civil engineer with at least seven years experience of highway engineering. He/she will be responsible for designing especially in geometric design, designs for road features and road safety/traffic control features, drainage designs, rehabilitation and repair plan, traffic plans and amenities including detailed drawings and specifications.
- (vi) Geotechnical Engineer (international, 1 position, 4 person-months): Qualified civil engineer with at least seven years experience of geotechnical/material engineering. He/she will be responsible for geotechnical investigations and subsurface explorations for road and structures, stipulate material testing procedures and specifications, identify sources of materials, quarry sites and borrow areas.
- (vii) Pavement Engineer (national, 4 positions, 24 person-months): Qualified civil engineer with at least seven years experience of pavement engineering. He/she will be responsible for assessing pavement condition of the roads, develop cost-effective pavement designs applicable to the project roads, selection of design based on various material options and local conditions, and design shoulders including detailed drawings and specifications.
- (viii) Structural Engineer (international, 6 person-months): Qualified civil engineer with at least seven years international experience of structure engineering especially in bridges and erosion/flood protection works. He/she will be responsible for designing especially on cost effective, multi-hazard resistant design, design the

structural elements of roads component and bridges, including detailed structural drawings and specifications.

- (ix) Structural Engineer (national, 3 positions, 18 person-months): Qualified civil engineer with at least seven years experience of structure engineering especially in bridges and erosion/flood protection works. He/she will be responsible for designing especially on cost effective, multi-hazard resistant design, design the structural elements of roads component and bridges, including detailed structural drawings and specifications.
- (x) M&E Specialist (national, 6 positions, 180 person-months): Qualified civil engineer/MBA social sciences/BA with at least 10 years experience in monitoring and evaluation. He/she will be responsible for periodic progress reporting and monitoring of the project. He/she will be responsible for periodic information dissemination on web-site related to the project. He/she will be responsible for collating all the information and submit it on approved format to PM.
- (xi) Finance and administration Specialist (national, 30 person-months): Qualified chartered/cost management accountant or MBA (finance) with at least five years of professional experience. The incumbent will be responsible for preparing monthly financial statements and project accounts; pre-audit and verification of all contractor/supplier bills prior to payment; preparation of monthly project accounts and financial reports; preparation of monthly internal auditing reports for ADB and the borrower; providing requisite financial input for the quarterly progress reports; assisting the IA in preparation of complete and correct withdrawal applications and ensuring prompt submission to ADB; and preparation of annual financial statements and accounts within one month of closing of the Government's fiscal year, and coordinating the external audit activity.
- (xii) Resettlement Specialist (3 nationals, 81 person-months): Post graduate degree in social sciences or an equivalent field, and 10 years experience in resettlement planning and implementation preferably in projects finance by multilateral finance institutions. He/she will assist PMC on social safeguard compliance on the subprojects.
- (xiii) Resettlement Specialist (international, 6 person-months): Post graduate degree in the social sciences or a similar field. At least five years experience in resettlement planning and monitoring preferably on multilateral finance institution financed projects. He/she specialist will assist PMC on social safeguard compliance on the subprojects. The international resettlement specialist will be assisted by the following staff: (a) Patwari (12 person-months) having 10-year experience preferably in Khyber Pakhtunhwa or Sindh provinces and preferably working as a patwari; (b) Collector (18-person-months), with at least 15 years experience working in the revenue department, and with experience in Khyber Pakhtunhwa or Sindh provinces; and Junior Clerk (18 person-months) with experience working in the revenue department preferably in Khyber Pakhtunhwa.
- (xiv) Grievance officers (national, 5 positions, 180 person-months): Post-graduate qualification in community development, and at least 10 years experience in community consultation, participation, mobilization and grievance handling. The

specialist will design the overall grievance system including TOR, linkages to the Ombudsman's Office, and build capacity of the PMU.

- (xv) Social mobilizers (national, 3 positions, 36 person-months): A university degree in the social sciences or gender and development with 10 years experience in developing and administering social survey questionnaires. He/she will be responsible for collecting data, field visits, periodic reporting and follow up actions to ensure that all work related to social safeguard is timely submitted to the resettlement specialist.
- (xvi) Environment Specialist (national, 3 positions, 36 person-months): A graduate degree in environmental engineering or post-graduate degree in environmental science or a related discipline is required; and will have at least five years of experience in environmental management and monitoring of projects, environmental assessment and/or design and implementation of environmental mitigation measures. He/she will support the NHA Environment and Social Units (ESUs). The ESUs will be established in the Project Management Unit (PMU). He/she will be responsible for preparing environmental screening checklists and classifying sub-projects that have not been yet classified, preparing and obtaining IEEs and Environmental Management Plans (EMP), providing support to the ESU for ensuring that EMPs are included in tender documents, ensuring prior clearance, monitoring, course corrections, consultations, due diligence, disclosures. The consultant will be located in the NHA ESUs.
- (xvii) Gender Specialist (national, 2 positions, 24 person-months): Qualified sociologist (preferably post graduate) with at least five years of experience in nongovernment organizations, government agencies and research institutes in Pakistan, with direct involvement in the development and implementation of gender mainstreaming features in development projects. He/she will assist PMU in identifying scope for gender mainstreaming and assist in implementation and monitoring of FERP Gender Action Frameworks.
- (xviii) Resident Engineer (national, 18 positions, 540 person-Months): Qualified civil engineer with at least 15 years experience of construction supervision of road/bridges. The Resident Engineer (RE) will be assisted by Assistant Resident Engineers and will be responsible for quality, cost, scope, time, safety, and environmental control of the subprojects. He/she will be responsible for approving contractor's work program, method statements, material sources, preparing and issuing reports as defined subsequently, approving and/or issuing working drawings, approving the setting out of the works, and instructing the contractor, certifying work volume and recommending interim certificates for progress payments, maintaining consolidated project accounts, and preparing of financial statements, ensuring minimum disruption/damage to the environment by approval of contractors' work statement/methodology, including monitoring the impact of construction works on the environment and local settlements and providing information to NHA, PMC, and the ADB on the monthly progress reports.
- (xix) Assistant Resident Engineer (national, 36 positions, 1,080 person-months): Qualified civil engineer with at least 10 years experience of construction supervision of road/bridges. He/she will assist the RE in the performance of his

tasks. The main responsibilities of the position will include inspection of the site, finalize joint surveys with contractors, assist the RE and recommend approval of contractor's work program, method statements, material sources, assist the RE in preparing and issuing reports as defined subsequently, review and recommend approval and/or issuing working drawings, approval of the setting out of the works, and instruction to the contractor, taking measurements and keep measurement records, certifying work volume and recommending interim certificates for progress payments to RE.

- (xx) Material Engineer (national, 18 positions, 540 person-months): Qualified civil engineer with at least 10 years experience of material engineering. He/she will assist the RE and will be responsible for quality of material used in construction by performing field and laboratory tests and certifying their acceptance based on recommended specifications for the materials; and will identify sources of materials, and quarry site.

b. Sindh Irrigation Department

59. A total of 834 person-months of national consultants are planned for the three-year project for providing assistance to the EA/IA in design, construction and management of subprojects,¹³ and verification of contractors' payments.

- (i) Project Manager (24 person-months): Qualified civil engineer with at least 15 years experience of managing similar works in the irrigation sector in Pakistan. Experience in Sindh is preferable. He/she will have overall responsibility for the organization, conduct and delivery of consultancy services and construction contracts, and reporting. He/she will head the PMC and will work directly, and manage relations, with the client.
- (ii) Deputy Project Manager (2 positions, 24 person-months each): Qualified civil engineers with at least 10 years experience in design and construction supervising of irrigation, drainage and flood protection works in Pakistan. Experience in Sindh is preferable. They will supervise assistance provided by the senior engineers and assistant engineers to the IA in design, contracts award and management, and construction, ensure quality control of works. Responsible for day-to-day management of works. Provide assistance to the Project Manager in overall management, monitoring and reporting.
- (iii) Senior Engineer (9 positions, 24 person-months each): Qualified civil engineers with at least 7 years experience in design and construction supervision of irrigation, drainage and flood protection works in Pakistan. Experience in Sindh is preferable. He/she will be responsible for assisting IA in design and construction supervision, and reviewing and approving contractors' bills.
- (iv) Assistant Engineer (18 positions, 24 person-months each): Qualified civil engineers with at least 5 years experience in design and construction supervision of irrigation, drainage, and flood protection works in Pakistan. Experience in Sindh is preferable. He/she will be responsible for assisting IA in design and construction supervision, and verifying contractors' bills.

¹³ The selection criteria of subprojects is provided in Annex 1 while the list of proposed subprojects are in Annex 2.

- (v) Procurement/Contract Specialist (24 person-months): Qualified civil engineer with at least 10 years experience in civil works contracts procurement and management. Experience and knowledge of ADB's procurement procedures is essential. He/she will be responsible for assisting IA in procurement and management of civil works contracts. He/she will be responsible for procurement oversight. Monitoring and Evaluation (M&E) specialist (24 person-months): Post graduate degree in the social sciences or an equivalent field. At least 10 years experience in designing system, carrying out monitoring and evaluation and preparing reports. He/she will be responsible for developing and implementing project specific monitoring and evaluation systems including project performance monitoring system, including safeguards. He/she will be responsible for periodic information dissemination on web-site related to the project. He/she will be responsible for collating all the information and submit it on approved format to PM.
- (vi) Finance and administration specialist (24 person-months): Qualified chartered/cost management accountant or M.B.A. (finance) with at least 5 years of professional experience. The incumbent will be responsible for preparing monthly financial statements and project accounts; pre-audit and verification of all contractor/supplier bills prior to payment; preparation of monthly project accounts and financial reports; preparation of monthly internal auditing reports for ADB and the borrower; providing requisite financial input for the quarterly progress reports; assisting the IA in preparation of complete and correct withdrawal applications and ensuring prompt submission to ADB; and preparation of annual financial statements and accounts within one month of closing of the Government's fiscal year, and coordinating the external audit activity
- (vii) Resettlement Specialist (12 person-months): Post graduate degree in the social sciences or a similar field. At least 5 years experience in resettlement planning and monitoring preferably on multilateral finance institution financed projects.
- (viii) Environment Specialist (12 person-months): Graduate degree in environmental engineering or post-graduate degree in environmental science or a related discipline is required and have at least 5 years of experience in environmental management and monitoring of projects, environmental assessment and/or design and implementation of environmental mitigation measures. He/she will support the W&S Department's ESU. The ESU will be established in the Project Management Unit (PMU). He/she will be responsible for preparing environmental screening checklists and classifying subprojects that have not been yet classified, preparing and obtaining IEEs and Environmental Management Plans (EMP), providing support to the ESU for ensuring that EMPs are included in tender documents, ensuring prior clearance, monitoring, course corrections, consultations, due diligence, disclosures. The consultant will be located in the ESU of Irrigation Department.
- (ix) Gender Specialist (6 person-months): Qualified sociologist (preferably post graduate) with at least five years of experience in nongovernment organizations, government agencies and research institutes in Pakistan, with direct involvement in the development and implementation of gender mainstreaming features in

development projects. He/she will assist PMU in identifying scope for gender mainstreaming in subprojects and assist in implementation and monitoring of FERP Gender Action Frameworks/Plans.

- (x) Grievance Officer (12 person-months): Post graduate degree in community development or similar field, with at least 10 years of experience in community consultations, participation and grievance handling. He/she will design the grievance system including TOR, linkages to the Ombudsman's Office, and bind capacity of the PMU.

c. Sindh Works and Services

60. A total of 822 person-months of national consultancy are planned for the three-year Project.

- (i) Project Manager (36 person-months): Qualified civil engineer with at least 15 years experience of managing similar road construction works in the transport sector in Pakistan. Experience in Sindh is preferable. He/she will have overall responsibility for the organization, conduct and delivery of consultancy services and construction contracts, and reporting; and will head the PMC and work directly, and manage relations, with the Client.
- (ii) Deputy Project Manager (2 positions, 72 person-months): Qualified civil engineers with at least 10 years experience in design and construction supervising of roads construction works in Pakistan. Experience in Sindh is preferable. He/she supervise assistance provided by the senior engineers and assistant engineers to the IA in design, contracts award and management, and construction, ensure quality control of works. Responsible for day-to-day management of works; and provide assistance to the Project Manager in overall management, and monitoring and reporting.
- (iii) Contract/Procurement specialist (36 person-months): Masters degree with a major in a relevant discipline (e.g., procurement, engineering, finance, etc.) and a minimum of eight years of relevant experience including broad expertise in the management of public procurement in the public or private sector. Knowledge of ADB Procurement Guidelines for procurement of goods, works and selection of consultants will be an essential advantage. He/she will be responsible for strengthening the procurement management capacity of the PMU to ensure that procedures acceptable to ADB are developed and adhered to including: (i) establishment of a PMU procurement monitoring system, (ii) reviewing requests for proposals (RFPs) and evaluation of proposals, (iii) scheduling/packaging of bids (iv) advising on preparation of bidding documents including choice of procurement method, (v) preparing/guiding preparation of bid evaluation reports, (vi) reviewing pre-qualification procedures for retention and contracting contractors, (vii) guiding, if required contract negotiation and award, and (viii) advising on contract administration including contract variations and dispute resolution. He/she will be responsible for procurement oversight.
- (iv) Senior Engineer (4 positions, 144 person-months): Qualified civil engineer with at least seven years experience in design and construction supervision of roads construction works in Pakistan. Experience in Sindh is preferable. He/she will be

responsible for assisting IA in design review and construction supervision, and reviewing and approving contractors' bills.

- (v) Assistant Engineer (12 positions, 432 person-months): Qualified civil engineer with at least five years experience in design and construction supervision of roads construction works in Pakistan. Experience in Sindh is preferable. He/she will be responsible for assisting IA in design review and construction supervision, and verifying contractors' bills.
- (vi) Monitoring and Evaluation (M&E) specialist (36 person-months): A post graduate degree in the social sciences or an equivalent field with at least 10 years experience in designing system, and carrying out monitoring and evaluation and preparing reports. He/she will be responsible for developing and implementing project specific monitoring and evaluation systems including project performance monitoring system, including safeguards. He/she will be responsible for periodic information dissemination on web-site related to the project. He/she will be responsible for collating all the information and submit it on approved format to PM.
- (vii) Finance and administration specialist (36 person-months): Qualified chartered/cost management accountant or M.B.A. (finance) with at least 5 years of professional experience. The incumbent will be responsible for preparing monthly financial statements and project accounts; pre-audit and verification of all contractor/supplier bills prior to payment; preparation of monthly project accounts and financial reports; preparation of monthly internal auditing reports for ADB and the borrower; providing requisite financial input for the quarterly progress reports; assisting the IA in preparation of complete and correct withdrawal applications and ensuring prompt submission to ADB; and preparation of annual financial statements and accounts within one month of closing of the Government's fiscal year, and coordinating the external audit activity.
- (viii) Resettlement Specialist (12 person-months): Post graduate degree in the social sciences or a similar field with at least five years experience in resettlement planning and monitoring preferably on multilateral finance institution financed projects. He/she will assist PMC on social safeguard compliance on the subprojects.
- (ix) Environment Specialist (12 person-months): Graduate degree in environmental engineering or post-graduate degree in environmental science or a related discipline is required; and will have at least five years of experience in environmental management and monitoring of projects, environmental assessment and/or design and implementation of environmental mitigation measures. He/she will support the W&S Department's ESU. The ESU will be established in the Project Management Unit (PMU). The ESU will be responsible for monitoring and reporting on safeguard compliance and supporting the grievance redress system established in each of the IA. He/she will be responsible for preparing environmental screening checklists and classifying subprojects that have not been yet classified, preparing and obtaining IEEs and Environmental Management Plans (EMP), providing support to the ESU for ensuring that EMPs are included in tender documents, ensuring prior clearance,

monitoring, course corrections, consultations, due diligence, disclosures. The consultant will be located in the W&S ESU.

- (x) Gender Specialist (6 person-months): Qualified sociologist (preferably post graduate) with at least five years of experience in nongovernment organizations, government agencies, and research institutes in Pakistan, with direct involvement in the development and implementation of gender mainstreaming features in development projects. He/she will assist PMU in identifying scope for gender mainstreaming in subprojects and assist in implementation and monitoring of FERP Gender Action Framework/Plans.

2. Design Consultants

a. Sindh Works and Services

61. Consultancy services are required to be covered for a period of five months for field surveys, engineering studies, design, design review and preparation of engineering drawings for the flood-affected provincial roads in Sindh. It will be conducted under the supervision of Works and Services Department, Sindh. A total of 86 person-months of consultancy would be required. The outline terms of reference for specialists are given below:

- (i) Team Leader (7 person-months): Qualified civil engineer with at least 15 years experience of managing similar works in the road sector in Pakistan. Experience in Sindh is preferable. He/she will have overall responsibility for the organization, conduct and delivery of consultancy services and reporting. He will head the consultancy service, work directly, and manage relations, with the Client.
- (ii) Highway Engineer (3 positions, 21 person-months): Qualified civil engineer with at least seven years experience of highway engineering. He/she will be responsible for designing especially in geometric design, designs for road features and road safety/traffic control features, drainage designs, rehabilitation and repair plan, traffic plans and amenities including detailed drawings and specifications.
- (iii) Pavement Engineer (2 positions, 10 person-months): Qualified civil engineer with at least seven years experience of pavement engineering. He/she will be responsible for assessing pavement condition of the roads, develop cost-effective pavement designs applicable to the project roads, selection of design based on various material options and local conditions, and design shoulders including detailed drawings and specifications.
- (iv) Structural Engineer (3 positions, 21 person-months): Qualified civil engineer with at least seven years experience of structure engineering. He/she will be responsible for designing especially on cost effective, multi-hazard resistant design, design the structural elements of roads component and bridges, including detailed structural drawings and specifications.
- (v) Geotechnical Engineer/Material Engineer (2 positions, 10 person-months): Qualified civil engineer with at least seven years experience of geotechnical/material engineering. He/she will be responsible for geo-technical investigations and sub-surface explorations for road and structures, stipulate

material testing procedures and specifications, identify sources of materials, quarry sites, and borrow areas.

- (vi) Procurement Specialist (5 person-months): Qualified civil engineer with at least 10 years experience of procurement especially on GoP and ADB procurement guidelines for works, goods and services. He/she will be responsible for planning/scheduling of procurement actions, preparation of TORs, expression of interest (EOI) and pre-qualification notices, overall management of bid process which includes preparation/review of prequalification/bidding documents including request for proposals (RFP), designing of qualification/evaluation criteria based on input from the concerned departments and ensure technical as well as financial evaluation of bids/proposals in accordance with given evaluation criteria, prepare standard agreement and contract documents; review agreements and contracts prepared by others and facilitate award of contracts. He/she will also provide procurement oversight.
- (vii) Resettlement Specialist (12 person-months): A post graduate degree in the social sciences or a similar field, and at least five years experience in resettlement planning and monitoring preferably on multilateral finance institution financed projects.

VII. SAFEGUARDS

A. Social Safeguards

62. To ensure compliance with ADB *Safeguard Policy Statement (2009)* each EA of FERP will ensure the implementation of the following procedures in each component of FERP. Each subproject that entails land acquisition and resettlement, and requires environment compliance, will comply with the frameworks—the Land Acquisition and Resettlement Framework (Annex 3) and Environmental Assessment and Review Framework (Annex 4). An environment and social unit (ESU) will be established in each IA in Sindh, and three ESUs in NHA. The EAs/IAs will ensure that sufficient support is provided to the Board of Revenue to expedite land acquisition. Funding for implementing land acquisition and resettlement plans (LARPs) will be made available before the award of civil works contracts. The resettlement plans will be submitted prior to contract award. The ESU with the support of the PMC will be responsible for preparing, implementing, monitoring, disclosing, and submitting reports to ADB and the EA. The NHA will establish one ESU each in its north and south zonal office, and one in the PMU in Islamabad. The ESUs are responsible for safeguard compliance as well as grievance handling. NHA will ensure that funds for land acquisition are provided before contract awards. NHA's environment, afforestation, land acquisition, and social (EALS) unit will be responsible for overall compliance and internal supervision of safeguards. For any subproject that requires land acquisition and resettlement, the EA will ensure all compensation and entitlements as detailed in the respective LARPs are paid prior to economic or physical displacement.

63. Monitoring staff will be appointed on completion of engineering designs. All LARPs including updates will be disclosed to the displaced persons and placed on the project website.

1. Consulting Services

64. It is expected that for social safeguards, governance and monitoring, 378 person-months of national consulting services will be required for the duration of FERP. Staffing will comprise experts in the field of monitoring and evaluation and resettlement and the social sciences.

2. Outputs

65. In addition to quarterly monitoring reports on social safeguards compliance, the consultants will provide support for preparation, implementation, and capacity development; and independent verification as and when require of compliance requirements included in the social safeguards framework. Reports will be submitted to the EA/IA and ADB simultaneously. All reports will provide sex disaggregated data.

B. Environment Safeguards

66. In order to ensure compliance with ADB *Safeguard Policy Statement (2009)*, the EAs of FERP will ensure the implementation of the following requirements and procedures for FERP under the overall guidance of the EARF.

67. An ESU will be established in each IA in Sindh, and three ESUs in NHA. Each ESU will include environment specialists.

68. The ESU will be responsible for:

- (i) Preparing environmental screening checklists and classifying sub-projects that have not been yet classified.
- (ii) Based on the checklist and as per ADB SPS (2009) and PEPA 1997 requirements, preparing initial environmental examination (IEEs) and environmental management plans EMPs.
- (iii) Submitting the checklists and IEE reports to ADB as part of the approval of subproject.
- (iv) Ensuring that the EMPs are included in tender documents.
- (v) Ensuring that all regulatory clearances are obtained before starting civil works for the subproject.
- (vi) Ensuring that the EMPs, including all proposed mitigation measures and monitoring programs are properly implemented.
- (vii) Undertaking monitoring of subprojects and preparing environmental monitoring reports every six months (in case of projects with long duration) and post-project reports (for shorter projects), to be delivered to ADB.
- (viii) In the case of unpredicted environmental impacts occurring during project implementation, preparing and implementing a Corrective Action Plan (CAP).
- (ix) In case of subprojects with significant environmental impacts, having an IEE report (for category B) (outline of an environmental assessment report is attached as Appendix 2), including an EMP prepared for public disclosure.
- (x) In the case that a Category B subproject needs to have its siting or alignment changed or its environmental classification reconfirmed, reviewing it to determine whether a supplementary study is required. If so, carry out the study and implement any amendments to the original EMP.
- (xi) Preparing a project specific EMP for the operations that includes a sub-plan for each of the work areas.
- (xii) Providing awareness training in environmental management for all employees working on the subproject.
- (xiii) Ensuring that meaningful public consultations (including both men and women) are undertaken with affected groups and local NGOs. The list of people attending the consultation, time and locations, subjects discussed during consultation will be recorded in a systematic manner.
- (xiv) Retroactive financing – In the case of subprojects identified for Retroactive financing, carrying out environmental audits (including screening, site visits, and review of tender documents) to ensure that ADB's environmental safeguard requirements have been met, and preparing environmental audit reports.
- (xv) Sharing information and disclosure of environmental safeguard documents (including any Corrective Action Plans prepared in cases of change to original project design) as required.

Environmental Management Requirements for Subprojects Financed by ADB

Environmental Management Actions	Project Implementation Activities	Conditions Required to Complete Actions
<i>Pre-construction commences</i>	Project becomes effective	
Environmental recording system established in ESU	<ul style="list-style-type: none"> ESU established in each IA Environment Specialist appointed to ESU 	Budget, facilities and staff for ESU have been provided according to Loan Agreement
Environmental assessment of sectoral projects carried out by individual consultants recruited by ESU	<ul style="list-style-type: none"> Subprojects grouped by sector, size and location. Sectoral IEEs (including EMPs) to be prepared for groups of sub-projects. EIA (including EMP) prepared for Category A projects EIA disclosed for 120 days before disbursement of funds for subproject 	
ESU prepares Design Brief incorporating EMP requirements, for consultants responsible for design and supervision (D&S) of subprojects	<ul style="list-style-type: none"> Preconstruction design: Incorporation of EMP requirements 	Appointment of consultants with necessary technical capacity to address EMP requirements
ESU extract construction requirements from EMP and pass to D&S consultant for inclusion in Tender documents ESU review Tender documents and confirm that environmental management provisions are sufficient	<ul style="list-style-type: none"> Tender documents prepared 	Standard environmental conditions have been prepared which are integrated into Tender documents
ESU review environmental conditions of Bid and rank contractors on this ability	<ul style="list-style-type: none"> Tenders evaluated and Contractor appointed 	Head of ESU to be member of the Bid Evaluation Panel
ESU review SEMP	<ul style="list-style-type: none"> Contractor prepares Site-specific EMPs (SEMP) 	Contractor appoints Environmental Manager After award of contract Contractor has 30 days to prepare SEMP. (ADB CWRD Guidance Notes on preparing SEMP are available)
ESU verifies compliance of	Contractor inducted to site by	Contractor cannot take possession

Environmental Management Actions	Project Implementation Activities	Conditions Required to Complete Actions
Contractor with SEMP at site meeting	ESU	of construction site until (i) SEMP has been approved; and (ii) induction is completed satisfactorily
ESU informs IA that Contractor is now cleared to start work	Contractor approved to start work	
<i>Pre-construction completed</i>		
<i>Construction commences</i>	Contractor begins work	
IA with assistance of ESU monitors Contractor's SEMP compliance activities ESU audits construction activities ESU evaluates monitoring program	Environmental monitoring undertaken and reports prepared: (i) By Contractor: Monthly environmental report sent to IA (ii) By ESU: Quarterly environmental report sent to ADB and relevant EPA	Contractor complies with SEMP requirements for implementing and monitoring work on-site. (ADB CWRD Guidance Notes on preparing monitoring reports available).
	Construction completed and project commissioned	(i) Project works completed in accordance with the SEMP and all sites satisfactorily rehabilitated and restored. (ii) ESU review and sign-off on completed work. (iii) Final environmental monitoring report prepared. (iv) Payments may be withheld if sites not cleared and closed to meet SEMP specifications
<i>Construction completed</i>		
<i>Note: Work on the identification and assessment of new sub-projects for subsequent phases is likely to begin during implementation of the initial subprojects</i>		
<i>Identification of new subprojects</i>		
Subprojects assessed against the selection criteria set out in the environmental assessment and review framework (EARF)	<ul style="list-style-type: none"> ▪ Potential subprojects identified ▪ Subprojects grouped by sector, size and location. 	
i) Environmental classification completed. Categorization forms sent to ADB Regional Department.	<ul style="list-style-type: none"> ▪ Preliminary design undertaken for subprojects ▪ Sectoral IEEs (including 	

Environmental Management Actions	Project Implementation Activities	Conditions Required to Complete Actions
ii) ESU prepare TOR for environmental assessment requirements iii) Consultant appointed to prepare the necessary environmental assessment documents iv) Category B and C projects are approved by ADB, and EPA (if required). v) Assessment documents for Category A subprojects sent to ADB for review and disclosure 120 days before disbursement	EMPs) to be prepared for groups of sub-projects. <ul style="list-style-type: none"> ▪ EIA (including EMP) prepared for Category A projects ▪ EIA disclosed for 120 days before disbursement of funds for subproject 	
Environmental assessment of sectoral projects carried out by consultants	<ul style="list-style-type: none"> ▪ Subprojects grouped by sector, size and location. ▪ Sectoral IEEs (including EMPs) to be prepared for groups of sub-projects. ▪ EIA (including EMP) prepared for Category A projects ▪ EIA disclosed for 120 days before disbursement of funds for subproject 	
ESU prepare Design Brief for D&S consultant that incorporates EMP Design requirements	Preconstruction: Design; incorporation of EMP requirements	
ESU extract construction requirements from EMP and pass to D&S consultant for inclusion in Tender documents ESU review Tender documents and confirm that environmental management provisions are sufficient	Tender documents prepared	
ESU review environmental conditions of Bid and rank contractors on this ability	Tenders evaluated and Contractor appointed	
ESU review SEMP	Contractor prepares SEMP Contractor inducted to site by ESU	

C. Gender and Social Dimensions

69. Gender and social dimensions of the FERP are highlighted under the attached Summary of Poverty Reduction and Social Strategy. A Gender Action Framework (Annex 4) has also been developed to outline the gender mainstreaming strategy of FERP. Gender consultants, under the associated TA, will be provided to the respective IAs and EAs to develop gender responsive mechanisms to better cater to the needs of women and strengthen gender mainstreaming processes.

70. It is expected that gender experts will be part of ESUs established in Irrigation Department and W&S Department in Sindh for six months with an option of extension based on performance and future scope of work. The ESU will be responsible for monitoring and reporting on social safeguard compliance and supporting the grievance redress system established in each of the IA.

71. In addition to oversight and reporting against the indicators of FERP gender action framework, gender experts will assess and identify the entry points for gender mainstreaming in subprojects and assist in developing gender responsive mechanisms. Coordinate gender mainstreaming work with other donors and civil society organizations and participate in existing local gender focal group.

VIII. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Economic and social recovery from the floods	<p>By end 2014, the AADT flow on national roads affected by floods is 10% higher than the projected AADT of 145,000 vehicles in 2010.</p> <p>By end 2015 agriculture production of major crops in Sindh equals or is above pre-flood levels -2009/10 (metric tons). wheat - 3.70 cotton - 4.27 sugarcane – 13.50 rice – 2.42</p>	<p>NHA data and revenue statistics</p> <p>Production data on major crops published by the Ministry of Agriculture and Bureau of Statistics</p>	Assumptions <p>Other reforms proceed in parallel</p> <p>Political stability is maintained and the economic program is implemented successfully</p> Risks <p>Security situation deteriorates, aggravated by social tensions caused by inequities in the distribution of emergency rehabilitation reconstruction assistance</p>
Outcome Critical physical infrastructure to restore livelihoods and access to markets has been put in place. Assets are rebuilt back to their original standards or better.	<p>90% of the damages identified for national roads in the DNA Report are reconstructed and rehabilitated by end 2014</p> <p>Pre-flood irrigation systems with a water carrying capacity of 59 million cubic meters restored in Sindh by end 2014</p> <p>Pre-flood employment level of men (9.2 million) and women (3.7 million) in agriculture for Sindh restored by end 2014</p> <p>81 major flood embankments (estimated length of 1,000 km) and 800 km of provincial roads restored, rehabilitated by end 2014. Reconstructed to protect social and economic assets in the flood-affected areas of Sindh and at standards to protect against future floods</p> <p>Improved capacity of IAs and EAs in terms of fiduciary management, procurement, safeguard compliance and gender mainstreaming – progress measured through reconstruction projects (by end 2014)</p>	<p>Project progress reports by NHA, consultants and ADB</p> <p>Reports on irrigation system by departments of irrigation in Sindh, consultants and ADB</p> <p>Federal and provincial government statistics on agriculture and employment – statistics divisions</p> <p>Progress reports of the departments of irrigation and W&S in Sindh. Flood damage reports of future floods by National Disaster Management Authority. Consultant and ADB review mission reports.</p> <p>Annual third party audit reports. Achievements on annual contracts according to protection plans (ADB PPMS) and ADB Mission procurement and safeguard review reports.</p>	Assumptions <p>Adequate and timely government and development partner funding</p> <p>Project implementation arrangements are in place and timely</p> <p>Procedural formalities do not delay the award of contracts</p> <p>Strong government support to timely and effective project implementation</p> Risks <p>Detritions of other factors like security or impact of other natural hazards like drought, etc.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
		Website reports.	
Outputs 1. Road network system (including bridges) repaired and rehabilitated	793 km of completely and partially damaged national highways repaired, rehabilitated and reconstructed by end 2014 At least 800 km of Sindh provincial roads repaired, rehabilitated and reconstructed by end 2014	NHA progress reports, corroborated by the Planning Commission and P&DD reports, consultants and ADB. Progress reports provided by the IA and the provincial P&DD	Assumptions The PMC is in place by 15 August 2011 and at least 20% of the civil works contracts are awarded by November 2011 Domestic contractors with adequate capacity are available
2. Provincial irrigation facilities rehabilitated and reconstructed	1.5 million ha of agricultural land affected by floods in Sindh improved through repair, rehabilitation, strengthening, and re-sectioning of flood protection embankments, and rehabilitation of main canal, distributaries minor canals and drainage infrastructure identified in the DNA (by end 2014) At least 90% of selected flood protection embankments and irrigation infrastructure identified in the DNA rehabilitated, strengthened, and re-sectioned with maintenance access in Sindh by end 2014.	Federal and provincial government statistics on agriculture and cultivated land. Consultant reports, ADB missions. Progress report of Sindh irrigation departments.	Risks underlying Low public sector capacity to execute projects Logistics constraints, including availability of construction materials, and the sharp increase in construction prices Security concerns affecting mobility of consultants/contractors The level of realignment, environment, and acquisition of land takes more time than estimated
3. Support services	Assistance with procurement and safeguards compliance according to ADB guidelines and the arrangements included in the financing agreements. At least 15% of the water structure (especially canals) has gender features in their design and Implementation. One women-livelihood project designed and financed	Procurement review by ADB Progress report of the irrigation department and the gender monitoring reports by consultants and the irrigation department. Consultant report and ADB missions	Engagement of advisors not done on time

Activities with Milestones	Inputs
<ol style="list-style-type: none"> 1. Initial requirement and activity plan for Capacity Building TA consultants worked out for all IAs by 20 April 2011. 2. Individual consultants' TORs and work plans finalized for at least three TA consultants for each IA by ADB before end of April 2011. 3. At least three TA consultants for each IA hired and mobilized by 10 May 2011. 4. Packaging revised, sample bidding documents and request for proposal for hiring PMC prepared by the TA consultants by 25 May 2011. 5. Monitoring and Grievance Redress system developed by all IAs with the support of TA consultants by 30 September 2011. 6. First safeguard (land, social, gender) monitoring report produced by 30 September 2011. 7. IA recruits loan consultants by 30 September 2011 and mobilizes them by 31 October 2011. 8. At least 20% of the civil works contracts are awarded by November 2011. 9. Prequalification commences for Framework (pre-qualification) contracts by 25 May 2011 and completed by 31 August 2011. 10. Design of at least 95 contract packages done by 31 December 2011, and IA to have awarded civil works contracts for all 95 subprojects (for about \$200 million) by December 2011. 11. Land acquisition for ADB road segments done by March 2012. 	<ul style="list-style-type: none"> • ADB: \$654 million ADF Loan: \$50 million OCR Loan: \$600 million TASF-IV Grant: \$4 million • Government: \$72 million

AADT = annual average daily traffic; ADB = Asian Development Bank; ADF = Asian Development Fund; PMC = Project Management Consultant; DNA = Damage and Needs Assessment; EA = executing agency; GDP = gross domestic product; FERP = Flood Emergency Reconstruction Project; ha = hectares; IA = implementing agency; km = kilometer; NHA = National Highway Authority; OCR = Ordinary Capital Resources; P&DD = Planning and Development Department; PMC = Project Management Consultant; PPMS = Project Performance Monitoring System; TA = technical assistance; TOR = terms of reference; W&S = Works and Services.

Source: Asian Development Bank.

R. Stroem
On behalf of Sector Teams
Central and West Asia Department

Juan Miranda
Director General
Central and West Asia Department

B. Monitoring

72. During the inception for FERP, monitoring mechanisms will be set up for each of the sectors being financed under the Project. The monitoring system to be set up will cover at least the following aspects:

- (i) Benefit monitoring,
- (ii) Gender and social dimensions monitoring,
- (iii) Safeguards monitoring, and
- (iv) Compliance monitoring.

73. A performance monitoring system, satisfactory to ADB will be established, based on the key indicators and targets outlined in the project design and monitoring framework (DMF). With the assistance of the TA consultants to be hired by ADB, the EAs will develop comprehensive project performance monitoring system (PPMS) procedures and plans in accordance with *ADB's Project Performance Monitoring System Handbook* within 6 months of loan effectiveness. The PPMS procedures, performance indicators, and their targets will be reviewed and approved by ADB. Benchmark review mainly focusing on secondary data will be conducted before project implementation. With the help of TA consultant and supported by PMC once they are hired, EA will then undertake every 6 months quantitative and qualitative project-performance monitoring for each project component to evaluate the delivery of planned facilities and the project benefits that accrued. The IAs will assist EAs in collecting baseline data and carrying out PPMS activities. The proposed associated TA will also support the respective P&DD and PC in integrating the FERP related M&E system in the broader M&E system they manage for capturing the overall flood reconstruction program, in case such a system is established in these agencies.

C. Evaluation

74. An inception mission will be fielded soon after the Project is declared effective. Thereafter, quarterly review mission during first year of implementation and regular bi-annual review missions will follow in which ADB's Central Operations Services Office (COSO), Office of the General Counsel (OGC) and Controller's Department (CTL) will participate as required. Given that this project is to be implemented over a short period of time (between three years duration), more frequent review missions will be fielded to consistently monitor project performance as per the agreed implementation schedule. Any significant deviation from the agreed schedule will be discussed with the implementing agency, with a view to agreeing to remove any bottlenecks that are impeding project implementation progress. The review missions will also make a thorough review of all the conditionalities of the Loan Agreement to ensure that they are complied with. The PMCs who have the responsibility for ensuring that the project is being implemented as per the agreed implementation schedule will be asked to provide immediate solutions to any slow moving projects. The ADB, in consultation with the Government, will provide any support needed to ensure the timely completion of the FERP. This support will be provided through the FERP unit in PRM dedicated for this purpose. An associated TA is also being provided that will support the PRM unit in administering this loan.

75. Dedicated sector and compliance staff hired through the TA administered by PRM will provide the close oversight required for implementation, fiduciary and safeguard monitoring of the FERP. At least six to seven TA consultants are expected to be mobilized within the first 6 month to perform this function. After the hiring of the PMC, some of these consultants will be demobilized depending upon needs. The consultants will assist the IAs in: (i) establishing the

PPMS and progress monitoring system; (ii) establishing the role and responsibilities for monitoring and reporting in each IA; (iii) include procedures and benchmarks in the monitoring system for procurement, safeguard, social and financial review and reporting; (iv) integrate monitoring of safeguard and social action plans and frameworks in the monitoring and reporting system; and (v) establishment of financial control monitoring and disbursement procedures and generating accounts and financial reports.

D. Grievance Redress

76. The TA consultant support will be provided to develop a grievance mechanism including outreach to project stakeholders. Linkages to the provincial ombudsman's offices and other sector specific grievance institutions will be developed. The EAs will set up grievance redress mechanisms with outreach in all subprojects funded by ADB through the PMC to deal effectively with complaints and support to access the provincial ombudsmen. Service benchmarks and protocols will be established for grievance redress system, and all information on the complaints handled will be published on a dedicated website. The dedicated focal person in each EA located in ESU will be responsible for grievance referral, generating progress reports on grievance redress and capacity development of the EAs and their staff handling grievance. There would be flexibility within the associated TA to provide support to the ombudsmen office in case additional support is required by the office to handle complaints related to the FERP.

E. Reporting

77. The primary responsibility for monitoring will be with the respective EAs that will provide ADB with (i) quarterly progress reports as agreed, in a format consistent with the ADB's project performance reporting system; (ii) consolidated financial Reports comparing actual expenditure to budgets both for the quarter, year to date and project to date; and (iii) consolidated annual reports including (a) progress achieved by output as measured through indicator's and performance targets, (b) key implementation issues and solutions, (c) updated procurement plans, (d) updated implementation plans for the next 12 months, and (e) a project completion report within six months of the physical completion of the project. The government will publicly disclose project information on websites, including information on funds use, reconstructing plans, procurements, awards, project selection criteria, and grievance. During the inception mission, ADB staff will provide detailed guidance to the PMCs and implementing agencies on the format and types of regular reports required by the ADB. Sample reports will also be provided at this stage.

IX. ANTICORRUPTION POLICY

78. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to FERP. All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the EAs and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the FERP.

79. To support these efforts, relevant provisions are included in the Loan agreement and the bidding documents for the Project. The Government will disclose to the public and update the current status of the FERP and how the loan proceeds have been used through a website to be established for the purpose. For each contract financed under FERP, the EAs and IAs will disclose on the website the following information.

- (i) list of participating bidders,
- (ii) name of the winning bidder,
- (iii) basic details of the bidding procedures and procurement method adopted,
- (iv) amount of contract awarded,
- (v) list of goods/services, including consulting services procured, and
- (vi) intended and actual utilization of the loan proceeds.

X. ACCOUNTABILITY MECHANISM

80. People who are, or may in the future be, adversely affected by the FERP may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism by writing to the Office of the Special Project Facilitator.

XI. RECORD OF PAM CHANGES

81. This section will document the history of changes to the PAM as it is updated periodically during FERP's implementation.

SELECTION CRITERIA FOR SUBPROJECTS

1. The following general criteria will be used in selecting and prioritizing the subprojects:
 - (i) The subproject will rehabilitate, restore or reconstruct infrastructure and facilities that sustained damage in the 2010 nation-wide floods caused by flooding or rains either directly (scouring, overtopping, breaching) or indirectly (weakening or undermining leading to pre-mature failure) that are under the responsibility of the relevant executing agency (EA);
 - (ii) In relation to criteria (i) above, infrastructure identified in the Preliminary Damage and Needs Assessment prepared by Asian Development Bank (ADB) and the World Bank (dated November 2010) and National Flood Reconstruction Plan 2010 (dated February 2011) are prima facie evidence of satisfaction of criteria (i) unless the relevant EA is or should reasonably be aware of, or ADB determines, the contrary.
 - (iii) The subproject is technically feasible, cost effective, financially sustainable, and economically viable;
 - (iv) The subproject will be completed within the project implementation period (three years) and contract packaging for the subprojects will be formulated accordingly and approved by ADB;
 - (v) The subproject represents a least-cost alternative with appropriate adjustment for incorporating multi-hazard resistant design standards of the Government of Pakistan or equivalent authorities;
 - (vi) The subprojects will be prepared by the relevant implementing agency (IA), approved by the respective departmental committees, and subject to ADB's prior or post approval in accordance with this PAM;
 - (vii) The subproject shall be (a) in compliance with applicable national and state laws and ADB's *Safeguard Policy Statement (SPS)* (2009); and (b) prepared in accordance with the requirements of an agreed environmental assessment and review framework (EARF) and the Land Acquisition and Resettlement Framework (LARF). For subprojects requiring an initial environmental examination (IEE) or environmental impact assessment (EIA), the IEE/EIA as applicable will be prepared and included in the subproject proposal and disclosed according to the EARF. Government environment clearance, if required, will be obtained prior to commencing civil works for such subprojects. Subprojects that do not satisfy the EARF and LARF will not be included under the FERP; and
 - (viii) All subprojects also need to (a) be in compliance with applicable national and provincial land acquisition and resettlement laws and ADB's SPS, (b) avoid land acquisition and resettlement, to the maximum extent possible; If land acquisition and resettlement cannot be avoided, subprojects should include measures that minimize impacts, using unencumbered government land which has not been squatted upon and (c) will have no impacts on indigenous people. The subprojects need to comply with the LARF.

- (ix) The subprojects will not be financed by another ADB project or by any other external source unless ADB agrees to be a co-financier.
- (x) Subprojects for retroactive financing will not involve any land acquisition, environmental impacts or resettlement.

2. Based on initial assessments and scope of FERP, the Borrower through the Sindh irrigation subcomponent (canals, drains, and flood protection works), NHA subcomponent (national highways, and bridges) and Sindh roads subcomponent (provincial roads and bridges) has identified the tentative list of subprojects provided in Annex 2 of the PAM. These subprojects and any additional subproject/s not identified in the PAM may be considered as eligible subprojects for ADB financing retroactively or after loan approval provided that all the selection criteria outlined above are satisfied.

LIST OF PROPOSED SUBPROJECTS

A. Sindh Irrigation

Canal and Drains

No.	Subproject	Region	Circle	Division
1	Structures (5 Nos.) Modules (12 Nos.) Canals (25 Nos.)	Gudu Barrage	B.S. Feeder Circle, Sukkur.	Begari
2	Structures (8 Nos.) Modules (16 Nos.) Canals (28 Nos.)	Gudu Barrage	B.S. Feeder Circle, Sukkur.	Begari
3	Structures (25 Nos.) Modules (3 Nos.) Canals (24 Nos.)	Gudu Barrage	B.S. Feeder Circle, Sukkur.	Sukkur Begari Bund Divison Begari Sindh Feeder
4	Structures (48 Nos.) Canals (21 Nos.)	Gudu Barrage	Desert Pat Feeder Circle, Sukkur. (Total)	Kandhkot
5	Structures (11 Nos.) Canals (10 Nos.)	Sukkur Barrage Right Bank Region	Saifullah Magsi Branch Circle	Warah
6	Canals (18 Nos.)	Sukkur Barrage Right Bank Region	Saifullah Magsi Branch Circle	Shahdadkot
7	Structures (2 Nos.) Canals (3 Nos.)	Sukkur Barrage Right Bank Region	Saifullah Magsi Branch Circle	Saifullah Magsi Branch
8	Structures (3 Nos.) Canals (4 Nos.)	Sukkur Barrage Right Bank Region	Saifullah Magsi Branch Circle	Saifullah Magsi Branch
9	Structures (20 Nos.) Canals (26 Nos.)	Sukkur Barrage Right Bank Region	Western Sindh Circle	Southern Dadu Division, Dadu Shahbaz Irrigation Division, Sehwan
10	Structures (16 Nos.) Canals (18 Nos.)	Sukkur Barrage Right Bank Region	Western Sindh Circle	Southern Dadu Division, Dadu Shahbaz Irrigation Division, Sehwan
11	Structures (88 Nos.) Canal (4 Nos.)	Kotri Barrage	Baghar Circle	Kalri Baghar Sakro
12	Structures (10 Nos.) Canals (16 Nos.)	Kotri Barrage	Pinyari Circle	Upper Pinyari
13	Structures (Regulators (22) / Modules(536) Canals (14 Nos.)	Kotri Barrage	Pinyari Circle	Lower Pinyari
14	Drains (44 Nos.) Structures (225 Nos.)	Kotri Barrage	Lower Sindh Drainage	Thatttha Drainage T.M. Khan Drainage
15	Drains (12 Nos.) Structures (including Inletes) (9 Nos.)	Development Region Hyderabad	Not Applicable	Larkana Drainage
16	Structures (including Inletes, Bridges, Water Courses) (252 Nos.)	Development Region Hyderabad	Not Applicable	Northern Dadu Drainage

No.	Subproject	Region	Circle	Division
17	Structures (328 Nos.) Modules (727 Nos.) Canals (203 Nos.) Inlets (165 Nos.) Drains. (67 Nos).	SIDA	Ghotki Feeder C.A.W. Ghotrki Left Bank Canal A.W. Badin Nara Canal A.W. Mirpurkhas	Ghotki Irrigation Division, Ghotki Mirpur Division, Mirpur Mathelo Tubewell Division, Ghotki Phulleli Canal Division, Badin Akram Wah Division, Badin Guni Canal Division Drainage Division, Badin Thar Division, Mirpurkhas Jamrao Division, Mirpurkhas Mithrao Division, Mirpurkhas Drainage Division, Sanghar

Flood Protection Works

Sukkur Barrage- Right Bank Region Larkana

No.	Subproject
1	PC-I form Raising Strengthening of bunds and stone pitching along S.L Bund Mile 0/2 to 5/6, Nusrat Loop Bund Mile 4/0 to 4/6, S.L Bund Mile 37/0 to 40/5, Agani Loop Bund Mile 0/0 to 1/2, Shah Nara Bund Mile 0/6 to 0/7, Palija Loop Bund Mile 1/4 to 2/4, Abad Manguli Bund Mile 0/0 to 1/4, L.S. Bund Mile 10/0 to 11/0, 18/0 to 20/0, 32/3 to 36/5, B.K Loop Bund Mile 0/0 to 1/1, & Gajidero Link Bund Mile 0/0 to ½ in Northern Dadu Division Larkana.
2	PC-I form for restoration damaged stone apron and pitching of spurs along Ruk Loop Bund at mile 0/5, 1/1, 1/6, and 2/3.
3	PC-I form for restoration of damaged stone apron and pitching along Akil Loop Bund Mile 0/2 to 0/7 spur at mile 0/4, 0/7 & earth Work (Raising and Strengthening) along Agani Akil Loop Bund Mile 2/0 to 2/5.
4	PC-I form for raising/strengthening and providing stone pitching along Flood Protective Bund from Rd 0 to 220 Southern Dadu Division.
5	PC-I form for raising/strengthening and providing stone pitching along Larkana Sehwan Bund from Mile 36/5 to 77/2. Southern Dadu Division.
6	PC-I form for raising/strengthening of Larkana Sehwan Bund from Mile 77/2 to 102/0 & providing stone pitching from mile 84/0 to 92/0.
7	PC-I form for raising/strengthening and providing stone pitching of Manchar containing bank from RD-0 to 100.
8	PC-I form for raising/strengthening of Saan Veeh Dari Bund from mile 0/0 to 13/4 providing stone pitching with toe wall along Saan Veeh Dari Bund from mile 0/0 to 1/0, 4/2 to 5/0, 7/4 to 8/0, 9/4 to 11/2, 12/0 to 13/4 mile.
9	Raising Strengthening and providing stone pitching along F.P Bund RD 220 to 346.
10	Raising Strengthening and providing stone pitching along Suprio Bund from RD 0 to 95.
11	Converting NIP bank of Nara Distry RD 11 to 0 and NIP bank of Khuda Wah Distry RD 0 to 39 into extension of Suprio Bund RD to 50.
12	Raising and Strengthening of F.P Bund from RD 346 to 502 and providing stone pitching along F.P Bund from RD 346 to 502.
13	Converting N.I.P of Naseer Distry from RD 0 to 67 into extension of Suprio Bund from RD 95 to 162.
14	PC-I form for work of providing stone pitching along F.P Bund RD 169 to RD 263.5.

Sukkur Barrage, Sukkur Left Bank Region

No.	Scheme
1	PC-I form for raising and strengthening of Bunder Walls and Bunds in Barrage Division, Sukkur.
2	PC-I form for raising and strengthening (earthwork and extension of stone pitching) along S.M. Bund Mile 123/0 to 172/0.
3	PC-I form construction stone pitching and earthwork along S.M. Bund Mile 125/4 to 126/4, 144 to 148/0 & 163/0 to 166/4.
4	PC-I form for construction of stud at S.M. Bund Mile 136/0+50.
5	PC-I form for earthwork for strengthening of S.M. Bund from Mile 0/0 to 80/0 in Rohri Division Moro.
6	PC-I form for constructing launched/damaged stone apron and stone pitching along J-Spur from 1,500 Ft to 3100 Ft of Dadu Moro Makhdoom Bilal Bridge.
7	PC-I form for earthwork and stone pitching along S.M Bund Mile 80/0 to 123/0 Recouping of Stone Apron @ Mud Site in Dadu Division Shaheed Benzairabad.
8	PC-I form for constructing stone pitching along S.M Bund Mile 0/5 to 2/4, front Bund Mile 0/0 to 3/7, S.M. Bund Mile 7/4 to 8/4, stone pitching Kandiaro Escapge Rd 26 to 29 R/S & RD 28 to 32 L/S, S.M. Bund Mile 40/0 to 42/0 & 45/0 to 46/0, 51/0 to 52/0 & 54/0 to 57/1, 61/0 to 63/0, & 64/0 to 65/0; and 74/4 to 78/5.
9	PC-I form for constructing stone apron along Ulra Jagir Bund at mile 2/6 to 5/2.
10	PC-I form for construction of Garhi Pathan Bund Mile 0/0 to 4/0.
11	PC-I for raising – strengthening (60-2 Miles) and constructing stone pitching (11 miles) along Bunds in West Division Khairpur.

Sindh Irrigation and Drainage Authority (SIDA)

No.	Scheme
1	Recouping and construction of stone pitching and earthwork along Ghallian front Bund mile 0/0 to 127.
2	Recouping and construction of stone pitching and earthwork along Jamshoro front Bund mile 0/0 to 4/6.
3	Recouping and construction of stone pitching and earthwork along Gidumal front Bund mile 0/0 to 4/4.
4	Raising and strengthening of R.N Manguli Bund mile 0/0 to 1/3, front bund mile 0/0 to 0/7 and R.N. Bund mile 0/2 to 1/1 (Ali Wahan Complex).
5	Raising and strengthening of Baji bund from mile 0/0 to 10/3 and providing stone pitching from mile 8/4 to 10/3.
6	Raising and strengthening of R.N bund mile 3/4 to 12/4 and providing stone pitching along R.N Bund mile 22/4 to 26/4.
7	Raising and strengthening of Gemro Bund mile 5/1 to 13/4 providing stone pitching from mile 11/4 to 13/4.
8	Raising and strengthening of Qadirpur Bund mile 10/4 to 14/4.
9	Raising and strengthening of Qadirpur Loop Bund mile 0/0 to 8/4 and raising of stone pitching from mile 5/0 to 5/7 and providing stone pitching mile 3/0 to 5/0 and shifting and reconstructing of Qadirpur Minor-II from RD 0 to 40.
10	Raising and strengthening inspection path of Ghotki feeder converting into bund from mile 0/0 to 8/0.
11	Raising and strengthening of Machka bund mile 0/0 to 3/0 and raising of stone pitching.
12	Raising and strengthening of Dilwaro Bund Mile 0/0 to 7/0 raising of stone pitching mile 0/0 to 1/0 and providing stone pitching mile 1/0 to 3/0.
13	Raising and strengthening of Ranwati bund mile 0/0 to 11/7 and providing stone pitching mile 9/0 to 11/0.
14	Raising and strengthening of L.M Bund (old) mile 0/0 to 6/0 and raising of stone pitching mile 0/0 to 3/1.
15	Restoration of stone apron mile 5/7+100 to 6/1+100 of Qadirpur Loop Bund.

Kotri Region

No.	Scheme
1	Earthwork and stone pitching from 0+0 to 4+800 along D/S Right Marginal Bund and earthwork u/s Right Marginal Bund 0+0 to 4+800.
2	Raising and strengthening of earthwork along KBF upper (River Bund from RD 35.0 to RD 145.9)
3	Constructing Jherruck flood protective bund from mile 0/0 to 4/4.
4	R&S of E.W along Jherruck Bund from Mile 4/4 to 5/6 & R/S of E/W along ShaiKhani Bund from Mile 0/0 to 1/6.
5	R&S of E/W & providing S/Pitching along S.H Bund from mile 0/0 to 3/2 R/S of E/W & providing S/Pitching along Ali Bahar Bund from mile 0/0 to 2/2 & R & S of E/W and providing stone pitching along Hiliaya Bund from mile 0/0 to 0/6.
6	R & S of E/W along Link Canal Bund from RD 56.0 to Rd 100.
7	R & S of E/W along P.B Bund from mile 0/0 to 15/0 and providing S/Pitching from mile 4/4 to 5/5.
8	R & S of E/W & providing S/Pitching from mile 0/0 to 35/3.
9	R & S of E/W along Indo Bund from mile 0/0 to 15/6.
10	Raising and strengthening of H.P. Bund mile 0/0 to 20/2, providing stone apron mile 4/0 to 5/0+330, and providing and raising stone pitching mile 9/0 to 12/4, 0/0 to 9/0 and 12/4 to 15/0.
11	Earthwork and providing stone pitching and dumping stone at Breach site (Kotalamo) M.S Bund from mile 18/1+150 to 18/3+30.
12	Raising and strengthening of M.S Bund from mile 0/0 to 24/7 and raising of old stone pitching from mile 15/0 to 22/0.
13	Stone pitching and remodeling of 1st Surjani Bund mile 0/0 to 1/7.
14	Stone Apron and T-head Spur along Surjani Complex.
15	Stone pitching and earthwork along M.S Bund mile 29/2 to 34/6.
16	Stone apron, stone pitching and constructing T-head Spur along M.S Bund mile 43/4+300.
17	Raising and strengthening earthwork along M.S Bund mile 34/6 to 55/4.
18	Remodeling of Kuka Link Bund Mile 0/0 to 20/6.

Guddu Barrage- Sukkur Region

No.	Scheme
1	Providing Diaphragm Wall along Sukkur Begari Bund mile 0/0 to 4/0 (vulnerable point) Sukkur City.
2	Raising and resectioning of S.B Bund mile 0/0 to 4/6, Nasirabad front Bund mile 0/0 to 0/2, Garang Bund Mile 4/6 to 7/4 , Old Bechanji Bund mile 0/0 to 0/4, New Bechani Bund mile 0/0 to 1/2, Mungli Bund mile 0/5 to 1/4, S.B Bund mile 9/2 to 16/2, E.F Link Taki 0 to 32, Muhammad Bagh Taki 32 to Taki 82 & S.B Bund 18/5 to 19/3.
3	Raising and resectioning of earthwork along S.F Bund (Section VI-A mile 0/0 to 1/2, Section IV mile 10/4 to 13/0, Section-III mile 6/1 to 10/4, Section-II-A mile 0/0 to 2/0 and S.B Bund mile 25/4 to 33/0.
4	Resectioning along K.K Bund mile 10/0 and constructing stone pitching wall mile 12/4 to 14/3.
5	Resectioning along K.K Bund mile 0/0 to 10/0 and constructing stone pitching along K.K Bund from mile 3/0 to 6/0.
6	Resectioning along K.K Bund mile 0/0 to 25/6 and constructing stone pitching along 24/0 to 26/6.
7	Resectioning of Kashmore Bund from mile 19/2 to 21/6 and provide stone pitching from mile 20/7 to 21/6 and providing Diaphraagm wall from mile 19/2 to 21/6.
8	Resectioning of new Makhwani Bund from mile 0/0 to 4/0 and providing stone pitching from mile 0/0 to 2/0 and old Tori Bund mile 6/4 to 6/6+300.
9	Constructing new "Habitat Loop Bund" connecting with mile 12/4 of Habitat loop and mile 0/2 and Ghoraghat Bund (Length 2000 ft)
10	Construction of new Ghoraghat-Tori-Makhwani link Bund from mile 0/0 to 3/0 (first line of defense at Tori Bund) connecting Ghoraghat to Tori and Makhwani Bund.
11	Resectioning and providing stone pitching along L.B Bund mile 4/0 to 6/4.
12	Restructuring of new Ghoraghat Bund, Ghoraghat Cross and Khair Wah Bund and providing stone pitching from mile 1/4 to 2/0 and from 2/0 to 2/4.
13	Resectioning of Ghauspur Bund from Mile 10/0 to 12/0 and raising stone pitching.
14	Resectioning and sand coring from mile 17/3 to 19/2 and providing stone pitching from mile 18/2 to 19/2 along Haibat Bund.
15	Extension of trench Bund with stone pitching, raising and strengthening from mile 7/2 to 15/7 of left marginal Bund.
16	Providing stone pitching along both sides of shank of left J-Spur and filling breach point U/S Gudu Barrage.
17	Raising and strengthening and stone pitching along D/S R.M. Bund mile 0/0 to 9/0.
18	Raising and strengthening and stone pitching along L.M Bund mile 0/0 to 7/2 & left spur mile 0/0 to 2/3.

B. Road Subprojects

Road No	Road/Package Name	Region/District
National Highway Authority		
N-45	(Nowshera ~ Chitral) Construction of Chakdara bridge including approaches	Khyber Pakhtunkhwa
N-55	(Kashmore ~ Kotri) 04 construction packages P-1, Km 87 ~ 155 P-2, Km 218 ~ 240 P-3, Km 318 ~ 431 P-4, Km 431 ~ 500	Sindh
S-2	(Kohalla ~ Muzaffarabad, Km 40) (02 construction packages) P-1, Km 0 ~ 20 P-2, Km 20 ~ 40	Punjab North
N-15	(Mansehra ~ Naran ~ Jalkhad ~ Chilas) 02 construction packages P-1, Km 30 ~ 40 P-2, Km 80 ~ 186 including construction of new bridges	Khyber Pakhtunkhwa
N-5	(Kot Sabzal ~ Karachi) Section Kot Sabzal ~ Rani pur Km 410 ~ Km 615 (03 construction packages) P-1, Km 410 ~ 475 P-2, Km 524 ~ 576 P-3, Km 605 ~ 615	Sindh and Punjab South
N-65	(Sukkur ~ Sibi ~ Quetta) Section Jacobabad ~ Dera Allah Yar Khan (Km 83 ~ 100)	Sindh and Khuzdar
N-70	(Multan ~ Muzaffar Ghar ~ D.G. Khan ~ Bewata)	Punjab South
M-8	(Retodero ~ Shadad Kot ~ Qubo Saeed Khan)	Sindh
N-50	(Kuchlack ~ Zhob ~ D.I. Khan) 02 construction packages P-1, Km 380 ~ 426 P-2, Km 426 ~ 500	Khyber Pakhtunkhwa

Road No	Road/Package Name	Region/District
N-5	(Khairabad ~ Torkham) 02 construction packages P-1, Km 1630 ~ 1660 P-2, Km 1713 ~ 1756	Khyber Pakhtunkhwa
N-35 (KKH)	Hassanabdal ~ Thakot ~ Dasu ~ Raikot (471 Km) 03 construction packages P-1, Rectification of bridges (Shahia & Ayub) P-2, Km 200 ~ 295 including construction of new bridges & causeways P-3, Km 295 ~ 471	Northern Areas
N-55	(Kashmore ~ D.G.Khan ~ Ramak) 03 construction packages P-1, Km 495 ~ 611 P-2, Km 640 ~ 862 P-3, Construction of new bridges between Km 780 ~ 862 (replacement of causeways)	Punjab South
N-55	(Ramak ~ Peshawar)03 construction packages P-1, Km 872 ~ 932 P-2, Km 932 ~ 1032 P-3, Km 1032 ~ 1228	Khyber Pakhtunkhwa
N-90	(Khwaza Khela ~ Besham) 02 construction packages P-1, Construction of 04 new bridges between Km 0 ~ 32 P-2, Km 32 ~ 64	Khyber Pakhtunkhwa
N-5	(Karachi ~ Kot Sabzal) Section Hala ~ Moro Km 150 ~ Km 320	Sindh
M-1	(Islamabad ~ Peshawar) Works on Khayali bridge & Jundi bridge	Motorways
N-80	(Ternol ~ Kohat)	Khyber Pakhtunkhwa
N-95	(Chakdara ~ Kalam) Section Khawaza Khela ~ Madyan ~ Kalam (Km 70 ~ Km 134)	Kyber Pakhtunkhwa
N-45	(Nowshera ~ Chitral) 02 construction packages P-1, Nowshera ~ Rashki P-2, Chakdara ~ Chitral	Khyber Pakhtunkhwa
S - 1	(Gilgit ~ Skardu)	Northern Areas
Sindh Provincial Roads Category - I (5.5 to 7.3 m)		

Road No	Road/Package Name	Region/District
1	Dadu Moro Ferry Road mile 0/0-5/5	Dadu
2	Mehar NauGoth road mile 13/0-14/0	Dadu
3	Dadu Johi road mile 6/2-10/6	Dadu
4	K.N Shah Baira via Gozo road mile 4/2-12/2	Dadu
5	K.N Shah Sindhi Butraroad mile 0/0-10/0	Dadu
6	Mehar Nau Goth road to Shah Panjo road mile 4/0-12/0	Dadu
7	Sita K.N Shah road mile 0/0-8/4	Dadu
8	Mehar to Warah via Gaji Khawar road mile 0/4-13/0	Dadu
9	Mehar to Fareedabad road mile 4/0-15/0	Dadu
11	Road form Indus Highway Old Alignment Mile 5/6-13/4	Jamshoro
12	Road form Hyuderabad to Kotri via Khanpur upto Railway Pathak mile 0/0-2/7	Jamshoro
13	Road from Ras Wah Mori Kotri to Karo Khaho Mile 0/0-4/3	Jamshoro
14	Road from Jati to Chachh Jahan Khan road mile 0/0-16/0	Thatta
15	Road form Sujawal-Jati road mile 0/0-22/0	Thatta
16	Road form Jati to Raj Malak road mile 0/0-12/0	Thatta
17	Road from Suajwal - Bathoro-Bulri Shah Karim road mile 24/0-49/5	Thatta
18	Road form Chohar Jamali- Chachh Jehan Khan via Ladyoon Link to Shah Yaqeek Mile 0/0-13/2	Thatta
19	Road form Sujawal Chohar Jamali road mile 0/0-15/0	Thatta
20	Road form Sujawal-Daro Via Belo road mile 0/0-22/0	Thatta
21	Road form Ferry road Approach mile 0/0-6/5	Dadu
22	Road form Sehwan to Jahangara road mile 0/0-10/3	Jamshoro
23	Road form Badin - Sujawal road mile 35/0-48/7	Thatta
24	Road form Ghouspur Tangwani road mile 0/0-8/0	Kashmore @ Kandhkot
25	Road form Dil Murad Railway Station to Manjhipur Mile 0/0-14/0	Jacobabad
26	Road from Jacobabad Thull road mile 0/0-22/6	Jacobabad
27	Road form Jacobabad Dodapur Garhi Khairo road mile 0/0-38/0	Jacobabad
28	Road from Thull Saifal road @ Mile 2/7 Sajjan Bagar Laro to Mirpur Buriro and Udi Mile 0/0-6/3	Jacobabad
29	Road from Thull Saifal road mile 0/0-14/0	Jacobabad
30	Road from Thull Bye Pass road mile 0/0-2/4+220'	Jacobabad
31	Road from Hamayoon Thull Bye Pass i/c Link to Mian-jo-Goth road mile 0/0-18/0	Shikarpur
32	Road from Khanpur Thull via Rahimabad road mile 0/0-18/0	Shikarpur
33	Road from Shikarpur Rustam road mile 0/0-10/0	Shikarpur
34	Reconstruction/ Rehabilitation of Shahdadkot to Imam Bux Jamali Road mile 0/0-10/0	Kamber @ Shahdadkot
35	Reconstruction / Rehabilitation of Shahdadkot to Garhi Khairo road mile 0/0-17/3	Kamber @ Shahdadkot

Road No	Road/Package Name	Region/District
36	Reconstruction/ Rehabilitation of Sujawal to Garhi Khairpur road mile 0/0-17/3	Kamber @ Shahdadkot
Sindh Provincial Roads Category - I (3.65 m)		
1	Road from Kandhkot Saifal to village Bahram Khan Nindwani Mile 0/0-2/6	Kashmore @ Kandhkot
2	Road from Village Haji Sarfaraz Khan Sundrani Deh Dari Markhani Mile 0/0-0/5	Kashmore @ Kandhkot
3	Road from Indus Highway to Khahi Village via Chachar Gas field Mile 0/0-3/4	Kashmore @ Kandhkot
4	road from Kandhkot Shahalabad road @ mile 2/2 to village sobho khan sawand to via bahadur khan sabzoi misri khan sabzoi upto bhanner road mile 0/0-0/5.	Kashmore @ Kandhkot
5	Road form Jacobabad Thull road to Karim Bux via Bahadurpur Mile 0/0-10/0	Jacobabad
6	Road form Mouldad Dodaqpur road to Dargah Rahmatpur road mile 0/0-10/0	Jacobabad
7	Road from Shah Ghazi road to from Jacobabad to Shahi Wah mile 0/0-10/0	Jacobabad
8	Road from Dodapur to Punhoo Bhatti road mile 0/0-6/2	Jacobabad
9	Road from Thull to Bahu Khoso road mile 0/0-14/0	Jacobabad
10	Road from Sultankot to Zerkhail road mile 0/0-6/7	Shikarpur
11	Road form Shikarpur to Jaggan Mile 0/0-14/4	Shikarpur
12	Road from Zerkhail road to Dil Murad Kehar mile 0/0-2/0	Shikarpur
13	Road from Sultankot Jaggan road to Agha Kakal Khan mile 0/0-0/2	Shikarpur
14	Road form Sultankot to Mangrio Wahi Mile 0/0-5/4	Shikarpur
15	Road from Indus Highway to Fatehpur Thahim Mile 0/0-15/0	Shikarpur
16	Road from Jaggan Bazar upto Jaggan Hospital Mile 0/0-0/5	Shikarpur
17	Road form Fatehpur Thahim to Noor Hassan Jakhrani Mile 0/0-0/6	Shikarpur
18	Road form Agha Ghulam Nabi Khan Vilalge (Kot Agha Taimur Khan) to Vilalge Illahi Bux Seelro via Agha Ghulam Nabi Khan Mile 0/0-3/0	Shikarpur
19	Road from Sultankot Jaggan road mile 0/0-8/4	Shikarpur
20	Road from Khanpur to Garhi Syed Mile 0/0-6/0	Shikarpur
21	Road from Hamayoon to Sher Mohamamd Thahim road mile 0/0-18/0	Shikarpur
22	Road from Lodra Stop to Habibullah Kehar Mile 0/0-1/7	Shikarpur
23	Road from Garhi Yasin Jaggan road mile 0/0-9/0	Shikarpur
24	Reconstruction / Rehabilitation of Shahdadkot Garhi Khairpur road to Sanjar Bhatti to village Ghulam Nabi Bhurgari Mile 0/0-0/5	Kamber @ Shahdadkot
25	Construction of link road from Shahdadkot Garhi Khairpur road to Sanjar Bhatti via Hussain Brohi village Mile 0/0-0/5	Kamber @ Shahdadkot

Road No	Road/Package Name	Region/District
26	Construction of road from Qubo Katchi Pull road to Abdul Razzaq Magsi Jumo Khoso connect with Qubo Saifullah Canal Mile 0/0-1/2	Kamber @ Shahdadkot
27	Reconstrution/ Rehabilitation of Shahdadkot Garhi Khairo road to Vilalge Beg Mohamamd Bhurgeri mile 0/0-0/5	Kamber @ Shahdadkot
28	Construction of link road from Khando Gurgage to village Wali Abad road mile 0/0-0/58	Kamber @ Shahdadkot
29	Construction of road from Qubo Saeed Khan to Katchi Pull. Road mile 0/0-4/6	Kamber @ Shahdadkot
30	Road No: 40803 Kamber – Ghabidero road at point Buthi Lashkar to Khando (Warah) via Khair Muhammad Buriro, Sabo UC Ghabidero, Taluka Kamber District Larkana. Mile 0/0-12/4	Kamber @ Shahdadkot
31	Road No:40802 Katchi Pull to village Ghulam Murtaza Chandio via village Mir Niaz Ahmed Khoso, Gul Hassan Magsi, Murad Ali Magsi, Muhammad Nawaz Khokhar, UC Bago Daro, Taluka Shahdadkot District Larkana Mile 0/0-5/2	Kamber @ Shahdadkot
32	Construction of road from Muhammad Khan Khoso near Patoja village Mile 0/0-0/4	Kamber @ Shahdadkot
33	Construction of road from Qubo Saeed Khan to Patoja Canal Jamali road via Abdul Qadir Magsi, Ali Khan, Abdul Rehman Habtani & Sikandar Magsi. Ali Khan, Mile 0/0-1/2	Kamber @ Shahdadkot
34	Construction of road from PPL Gas field to Jamia Masjid Gaibidero Mile 0/0-0/5	Kamber @ Shahdadkot
35	Construction of road from F.P Bund Hamal village Mile 0/0-4/6	Kamber @ Shahdadkot
36	Road from Veehar to Village Rawat Khoro mile 0/0-2/4	Larkana
37	Road form Nauabad to Mir Ja Par to Fakir Ja Pir Road mile 0/0-1/0	Larkana
38	Road from Kalri to village Bachal chandio via Fateh Mohammad chandio.	Dadu
39	Road from Dadu-Moro Ferry road village Qaim khan Kharal.	Dadu
40	Road from Moundar to Mureed ja Bhan .	Dadu
41	Road from Jhallo to Village Adam Panhwar.	Dadu
42	Road from F.P Band to Moundar via Fareed khan Khushuk Jan Mohd Khushuk Gul Mohd Shahani	Dadu
43	Road from Degree Collage To Ameenani mile 7/2 - 8/0	Dadu
44	Road from Porano Dero to Ketu Jatoi	Dadu
45	Road from Mehar Nau Goth Road to village Jaro Kalhoro Mile 0/0-6/0	Dadu
46	Road from Baradi Lashari to village Ibrahim Lighari Mile 0/0-4/4	Dadu
47	Road from Bhan Johi Road Mile 0/0-4/0	Dadu
48	Road from Johi to Chhini Road Mile 0/0-9/2	Dadu
49	Road from Baid Shahi Lighari Road to Ramazan Bhutto Mile 0/0-0/2	Dadu
50	Road from Suprio Bund to Chore Mile 0/0-4/0.	Dadu

Road No	Road/Package Name	Region/District
51	Road from Bundo to Chore 0/0-0/4	Dadu
52	Road from Khandi Chuki Mian Naseer Mohammad mile 0/0-16/4	Dadu
53	Road from D-3 Minor to Ghulam Rasool Jamali mile 0/0-1/2	Dadu
54	Road from Upper Qamber to Haji Attur Chandio road mile 0/0-2/4	Dadu
55	Road from Indus Highway to Mitto Babar mile 2/4-9/0	Dadu
56	Road from Japanese to Village Khoh wara Kalhora mile 0/0-0/1 +330'	Dadu
57	Road from Khandi Chuki to Murrad Chandio over inspection path Khandowah mile 0/0-0/4	Dadu
58	Road from Sindhi Butra to Sita K.N.Shah via Fateh Muhammad Lund mile 0/0-0/4	Dadu
59	Road from Ramzan Babar Pasia Khoh wara Kalhoru mile 0/0-5/7	Dadu
60	Road from Kari Mori to Qadir Bux Brohi mile 0/0-4/0	Dadu
61	Road from Suprio Bund to Sultan Gadhi mile 0/0-0/2	Dadu
62	Road from Rawat Khan Chore to village Ghulam Qadir Khoso mile 0/0 - 0/2.	Dadu
63	Road from Sita K.N. Shah to Walidad Chandio road mile 0/0 - 0/4+330'.	Dadu
64	Road from Indus Highway Kandi Chukhyi to Baid road mile 0/0 - 3/4.	Dadu
65	Rawat Chore to Vilalge Bundo Mado road via Ghulam Hyder Khoso & Sher Mohamamd Khoso mile 0/0-0/5	Dadu
66	Mehar - Faridabad road to Charo mile 0/0 - 6/0.	Dadu
67	Gahi Mahessar Mangwari road Yousif Tunio mile (1-2 miles) and Bago Tunio (0-5 mile) = 1-7 miles	Dadu
68	Johi - Haji Khan road mile 0/0 - 3/0	Dadu
69	Siddique Depar to Saeedpur road mile 0/0 - 11/0.	Dadu
70	Faridabad to Shah Godirio road	Dadu
71	Road from Faridabad to Allah Dino Tereno	Dadu
72	Road from Mehar - Mado road to Mohammad Umar Sangi mile 0/0 - 1/2	Dadu
73	Road from Mehar Bypass to Hasal Khoso mile 0/0 - 0/6.	Dadu
74	Road from Gahi Khan Janwari to Ambar village mile 0/0 to 2/1.	Dadu
75	Road from Mehar - Gaji Khuhawar road to Indus Highway via Baladi road mile 0/0 to 7/0	Dadu
76	Road from Mehar- Gaji Khuhawar road to village Mir Mohammad Daryani mile 0/0 to 0/5.	Dadu
77	Road from Gaji Khuhawar to village Khamiso Khoso mile 0/0 to 0/5.	Dadu
78	Road from Indus Highway to Superio Bund along path Rajwah mile 0/0 to 10/0	Dadu
79	Mehar - Agamani road mile 0/0 to 9/0	Dadu

Road No	Road/Package Name	Region/District
80	Road from Mehar to Tharho via Sultan Bhatti mile 0/0 to 6/0	Dadu
81	Road from Othwal road to Fazal Mohammad Bhurgari along Khudan wah mile 0/0 to 1/0.	Dadu
82	Manghwani - Mado road mile 4/0 to 14/0	Dadu
83	Road from Thariri - Jado Shaheed to Gaj Bungalow mile 0/0 to 6/0	Dadu
84	Chinni to Tando Raheem Road mile 12/2-14/2	Dadu
85	Road form Sher Shah Sori Road mile 0/0-4/0	Jamshoro
86	Road form Indus Highway to Bubuk Via Jaheja Khabrote Mile 0/0-8/4	Jamshoro
87	Road from Jhanagara to Chinni Mile 0/0-21/0	Jamshoro
88	Road from Sher Shah Soori to Vilalge Haji Khor Khan Mile 0/0-2/0	Jamshoro
89	Road form Jhangara to Naing Sharif Mile 0/0-4/0	Jamshoro
90	Road form Paka Channa to Mohamamd Sadik Burdi Village Mile 0/0-1/0	Jamshoro
91	Road form Bakhtiarpur to Vilalge Noor Mohamamd Giancho Mile 0/0-0/4	Jamshoro
92	Road from Indus Highway to Bhan Chinni road Mile 2/0-12/0	Jamshoro
93	Road from Sher Shah Sori road at Mile 0/7 to Vilalge Ali Bux Bhat Mile 0/0-0/5	Jamshoro
94	Road from Indus Highway to Village Khasai Mile 0/0-1/0	Jamshoro
95	Road from Lakha Golara to Vilalge Nehalani Khoso & Sobho Manghand Mile 0/0-0/4	Jamshoro
96	Road from Indus Highway to Vilalge Wali Mohammad Rodrani mile 0/0-0/5	Jamshoro
97	Road from Khorwah - Jati road mile 0/0-32/0	Thatta
98	Road form Mirpur - Bathoro-Jati road mile 0/0-21/0	Thatta
99	Road from Jati - Ladyoon Road mile 0/0-14/*0	Thatta
100	Road form Chohar Jamali Shah Bunder road mile 0/0-18/0	Thatta
101	Road from Village Haji Mehmood Dal to vilalge Haji Talib Dal Mile 0/0-0/5	Thatta
102	Road from Gujjo to Nooriabad Mile 39/0-30/0 & 28/4-22/4	Thatta
103	Road from Baghan Jangiser to Kharo Chaan Mile 0/0-12/0	Thatta
104	Road from Bhirio Sheedi Mori to Kando Khaskheli Mile 0/0-1/0	Thatta
105	Road from Village Haji Mohammad Dal to Village Moosa Gulamani Dal, Haji Talib Dal Mile 0/0-3/2	Thatta

Resettlement Planning Document

Land Acquisition and Resettlement Framework

Project Number: 44372

March 2011

PAK: Flood Emergency Reconstruction Project

Prepared by
Islamic Republic of Pakistan

DEFINITION OF TERMS

Terms	Definition
Displaced Household:	All members of a subproject affected household residing under one roof and operating as a single economic unit, who are adversely affected by the Project or any of its components; may consist of a single nuclear family or an extended family group.
Displaced Persons:	In the context of involuntary resettlement, displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.
Compensation:	Payment in cash or in kind of the replacement cost of the acquired assets.
Encroachers/Squatters	People who have trespassed onto private/community land to which they are not authorized. If such people arrived before the entitlements cut-off date, they are eligible for compensation for any structures, crops or land improvements that they will lose.
Entitlement:	Range of measures comprising compensation, income restoration, transfer assistance, income substitution, and relocation, which are due to displaced persons, depending on the nature of their losses, to restore their economic and social base.
ESU:	Environment and Social Unit
Host Community:	Community residing near the area where the DPs are to be relocated.
Income Restoration:	Reestablishment of income sources and livelihoods of DPs.
Involuntary Resettlement:	Land and/or asset loss, which results in a reduction of livelihood level. These losses have to be compensated for so that no person is worse off than they were before the loss of land and/or assets.
Improvements:	Structures constructed (dwelling unit, fence, waiting sheds, animal pens, utilities, community facilities, stores, warehouses, etc.) and crops/plants planted by the person, household, institution, or organization.
Land Acquisition:	The process whereby a person is compelled by a government agency to alienate all or part of the land a person owns or possesses to the ownership and possession of the government agency for public purpose in return for a consideration.

Rehabilitation:	Compensatory measures provided under the ADB Policy Framework on Involuntary Resettlement other than payment of the replacement cost of acquired assets.
Relocation:	The physical resettlement of an AP from her/his pre-program place of residence or business..
Replacement Cost:	The value determined to be fair compensation for various types of agricultural and residential land, crops, trees, and other commodities based on current market rates; the cost of rebuilding houses and structures at current market prices of building materials and labor, without depreciation or deductions for salvaged building material. In addition, the payment of all transaction costs.
Resettlement Impact:	The nature and value of livelihood loss caused by the acquisition of land and/or assets
Vulnerable Groups:	Distinct group of people who may suffer disproportionately from resettlement effects. The policy defines vulnerable groups as households below the poverty line, the elderly, those without legal title to assets, landless, women, children and indigenous people.

I. INTRODUCTION

A. The Project

1. Pakistan faced unprecedented flooding with damage across all provinces affecting an estimated 22 million people, damage to infrastructure across the nation. The Asian Development Bank (ADB) will support the efforts of the Government of Pakistan (GoP), in irrigation, flood protection, road transport in selected provinces and the highway sector, nationwide. No indigenous people are affected. A Land Acquisition and Resettlement Framework (LARF), referred to hereafter as the 'framework', is prepared. This framework is prepared in accordance with the LAA, the SPS and the Disaster and Emergency Assistance Policy (2004), and applicable operations manuals (OM). The SPS and the Disaster and Emergency Assistance Policy provide flexibility for processing emergency loans where frameworks are prepared and subproject resettlement plans may be prepared after board approval. The framework responds to the unprecedented scale of impacts and the realities on the ground where road networks severing access; and irrigation systems have collapsed. Local agencies' limited resources are already stressed, land records may be lost, and lands washed away. Except for three roads in sensitive locations of which, two require minor land acquisition and one road requires significant land acquisition for a new alignment of 41 kilometers; all other works will be undertaken on existing alignments. The framework takes into account these realities; and proposes an approach where project identification, detailed designs and preparation of land acquisition and resettlement plans (LARPs) will be undertaken during implementation. LARPs will be prepared and cleared by ADB as a condition for award of civil works contracts. LARP implementation will commence as soon as possible. All compensation and entitlements will be paid prior to economic and physical displacement in accordance with the requirements of the SPS.

2. Government may acquire land by applying (i) routine land acquisition under the Land Acquisition Act 1894 (LAA) and applicable provincial regulations, or (ii) negotiated purchase documented in a LARP in compliance with the provisions for negotiated purchase detailed in the SPS and provincial regulations. Where land is urgently required, it is recommended that the acquiring department request acquisition be conducted through negotiated purchase. If negotiations fail, Government will apply compulsory acquisition in accordance with the LAA and ADB's Safeguard Policy Statement 2009 (SPS).

3. The framework provides the guiding principles for preparing the LARPs. A separate Indigenous Peoples Planning Framework (IPPF) is not required, as the loan will not include subprojects that affect indigenous people.

4. The framework, agreed between the GoP and ADB, sets out the safeguard principles, procedures, compensation, entitlements and implementation, disclosure and monitoring arrangements to be applied when identifying, designing, preparing and implementing LARPs.

5. The framework is endorsed by the GoP and provincial governments, and will be uploaded on the ADB website.

II. LEGAL AND POLICY FRAMEWORK

A. The Land Acquisition Act (LAA) of 1894

6. The Pakistan law governing land acquisition is the LAA of 1894 and successive amendments. The LAA regulates the land acquisition process and enables the federal and provincial governments to acquire private land for public purposes and for companies through the exercise of the right of eminent domain. Land acquisition is a provincial responsibility and each province has province specific implementation regulations and rules.

7. The law deals with matters related to the acquisition of private land and other immovable assets required for public purpose. The LAA also contains provisions for acquisition of land and assets on an emergency basis. In a situation where a project of public purpose has to be implemented urgently, the requesting department may request the revenue department to acquire land on an emergency basis. The revenue department, as per the LAA, determines the emergency nature and accordingly applies the LAA.

8. A brief explanation and salient features of different sections of LAA is given in Table 1. The right to acquire land for public purposes is established when Section 4 of the LAA is triggered. The LAA specifies a systematic approach for acquisition and compensation of land and other properties for development projects. It stipulates various sections pertaining to notifications, surveys, acquisition, compensation and apportionment awards, along with disputes resolution, penalties and exemptions. Surveys for land acquisition are to be disclosed to the displaced persons.

Table 1: Salient Features of the Land Acquisition Act 1894 and Successive Amendments

Key Sections	Salient Features of the LAA (1894)
Section 4	Publication of preliminary notification and power for conducting survey.
Section 5	Formal notification of land needed for a public purpose. Section 5a covering the need for enquiry
Section 6	The Government makes a more formal declaration of intent to acquire land.
Section 7	The Land Commissioner shall direct the Land Acquisition Collector (LAC) to take order the acquisition of the land.
Section 8	The LAC has then to direct that the land required to be physically marked out, measured and planned.
Section 9	The LAC gives notice to all displaced persons (DPs) that the Government intends to take possession of the land and if they have any claims for compensation then these claims are to be made to him at an appointed time.
Section 10	Delegates power to the LAC to record statements of DPs in the area of land to be acquired or any part thereof as co-proprietor, sub-proprietor, mortgagee, and tenant or otherwise.
Section 11	Enables the Collector to make enquiries into the measurements, value and claim and then to issue the final "award". The award includes the land's marked area and the valuation of compensation.
Section 16	When the LAC has made an award under Section 11, he will then take possession and the land shall thereupon vest absolutely in the Government, free from all encumbrances.
Section 17	Urgency acquisition
Section 18	In case of dissatisfaction with the award, DPs may request the LAC to refer the case onward to the court for a decision. This does not affect the Government taking possession of the land.
Section 23	The award of compensation for the owners for acquired land is determined at its market value plus 15% in view of the compulsory nature of the acquisition for public purposes.
Section 28	Relates to the determination of compensation values and interest premium for land acquisition
Section 31	Section 31 provides that the LAC can, instead of awarding cash compensation in respect of any

Key Sections	Salient Features of the LAA (1894)
	land, make any arrangement with a person having an interest in such land, including the grant of other lands in exchange.

B. ADB's Policy Principles for Involuntary Resettlement and Indigenous Peoples

9. The ADB's policy principles and objectives for Involuntary Resettlement (IR) are described in Annex 1. When land other than the unencumbered government-owned land is to be acquired then a LARP (Annex 2) is required. The IR checklist for screening and categorizing subprojects is in (Annex 3).

C. Comparison of Key Features of LAA 1894 and ADB Policy Principles and Practices

10. A comparison between the LAA and ADB safeguard policy principles (SPS) with regard to key land acquisition and resettlement (LAR) aspects is shown in Table 2. The object of this exercise is to identify if and where the two sets of procedures are in conformity with each other and more importantly where there are differences and gaps. The key ADB Policy Principles are (i) the need to screen the project early on in the planning stage; (ii) carry out meaningful consultation and establish a grievance redress mechanism; (iii) at the minimum, restore livelihood levels to what they were before the project and improve the livelihoods of affected vulnerable groups; (iv) prompt compensation, at full replacement cost, is to be paid before physical and economic displacement; (v) provide displaced people with adequate assistance; (vi) ensure that displaced people who have no statutory rights to the land that they are working are eligible for resettlement assistance and compensation for the loss of non-land assets; and (vii) disclose all LARPs endorsed by government.

Table 2: Comparison of GoP Land Acquisition Act 1894 (LAA) and ADB Safeguard Policy Statement 2009 Gap Filling Measures

GoP Land Acquisition Act 1894	Gap Filling Measures (SPS 2009 requirements)
Only titled landowners or customary rights holders are recognized for compensation.	Lack of title should not be a bar to resettlement and rehabilitation support. Requires equal treatment of those without clear land titles (for example, squatters or other informal settlers) in terms of their entitlements for resettlement assistance and compensation for the loss of non-land assets.
Only registered landowners, sharecroppers and lease holders are eligible for compensation of crop losses.	Crop compensation is to be provided irrespective of the land registration status of the affected farmer/share cropper.
Tree losses are compensated based on outdated officially fixed rates by the relevant forest and agriculture departments.	Tree losses are to be compensated according to market rates based on productive age or wood volume, depending on tree type.
Negotiated Purchase, no LARP required. Procedures available through instructions and agreement signed.	Prepare LARP in accordance with the provisions detailed in the SPS (2009) .

GoP Land Acquisition Act 1894	Gap Filling Measures (SPS 2009 requirements)
Land valuation is based on the median registered land transfer rate over the 3 years prior to Section 4 of the LAA being invoked. A 15% compulsory acquisition charges are paid over and above the assessed compensation. However, recent practice is that prices based on the average over the last one year prior to acquisition commencing is applied. Provinces have also issued instructions for assessing compensation to ensure displaced persons receive compensation at market price.	Replacement cost surveys undertaken by the EA and shared with assessors when determining compensation.
The valuation of structures is based on official rates, with depreciation deducted from gross value of the structure and also 15% of the value of salvaged materials.	The valuation of built-up structures is based on current market value but with consideration of the cost of new construction of the structure, with no deduction for depreciation.
The decisions regarding land acquisition and the amounts of compensation to be paid are published in the official Gazette and notified in accessible places so that the people affected are well informed.	Carry out consultations to inform potentially displaced persons about the likely impacts, finalization of award and payment of compensation. Disclose draft LARPs and their updates, as applicable.
There is no provision for income and livelihood rehabilitation measures. There are also no special allowances for vulnerable groups. There are no requirements to assess opportunities for benefit sharing. Untitled DPs are not entitled to rehabilitation support.	The ADB policy requires rehabilitation of livelihoods, and support during the relocation process. There are also provisions to be made to cover transitional period costs, and livelihood restoration. Particular attention must be paid to the poor and vulnerable groups, including women. A guiding principle is that DPs should at least be able to reach a defined minimum livelihood standard. In rural areas DPs should be provided with legal access to replacement land and resources to meet the defined minimum livelihood level. In urban areas provision should be made for appropriate income sources and the legal and affordable access to adequate housing. Untitled DPs have rights.
Prepare and disclose land acquisition and resettlement plans LARPs. There is no law or policy that requires preparation of LARPs.	Resettlement plans are prepared and disclosed.
Grievance redress is established through the formal land acquisition process at a point in time or through appeals to the court	Provide mechanisms that are accessible locally and available throughout project implementation.
Only compensation is paid but not resettlement allowances, there is no mechanism to ensure payment is made before displacement	All compensation and allowances to be paid prior to physical or economic dislocation.
No requirements to prepare and disclose monitoring reports	Prepare and disclose monitoring reports
No special provisions to deal with support to displaced, vulnerable, and tribal groups.	Combined resettlement and indigenous peoples plan prepared

D. Remedial Measures to Reconcile Gaps between the LAA 1894 and SPS 2009

11. Project specific resettlement issues have been addressed to assist non-titled persons, and bridge the gap between existing practice and the main guidelines of SPS with regard to involuntary resettlement... To reconcile the inconsistencies between the LAA and SPS, the government has drafted this LARF. Provision of subsidies or allowances will be given for affected households that maybe relocated, suffer business losses, or maybe vulnerable. Flood-affected households are recipients of Government assistance as well. As detailed in the SPS,

the content and complexity of a LARP will vary depending on the scale and severity of a subproject's impacts. An outline for preparing resettlement plans is in Annex 3.

E. Land Acquisition and Resettlement Modalities and Procedures

12. Land would be urgently required to complete the reconstruction work within two years. The preparation of LARPs and compensation disbursement fully depend on (i) availability of project design, (ii) impact assessment, (iii) valuation of land and assets including community assets, and (iv) identification and verification of owners/occupants including tribal people and the updated land records. Preparation of LARP and compensation disbursement is not only a time consuming process, but fully depends on the availability of DPs and land records, which, if lost or damaged, have to be re-created.

13. With the district government departments and resources strained by relief work, updating and/or re-creation of records and identification of owners/DPs, absentee owners will take time. Technical assistance consultants (TA) and Project Management Consultants (PMC) will be recruited to support the executing and implementing agencies (EA/IAS) in preparing LARPs with the respective Board of Revenue (BOR) staff in the provinces.

14. In accordance with the LAA, a two step procedure may be adopted for land acquisition, first negotiated purchase and if that fails expropriation. Negotiated purchase will be initiated on the written request of the acquiring department to the collector. The collector will constitute an independent committee consisting of (i) the district collector, (ii) EDO (finance and planning), representative of the acquiring department revenue officer/tehsildar circle and a local notable. The process of negotiation with the DP will be completed within 60 days of the start of negotiations. If successful, the collector proceeds with registering the deed of sale between the parties. A LARP will be prepared describing the procedures followed including requirements detailed in the SPS for negotiated purchase.

15. To determine the price, the committee may consider the following: (i) the price paid for land recently acquired including in the vicinity; (ii) the price paid in private transactions as discoverable from the register of mutations and the record of the registration department; (iii) all other information available including instructions provided in the LAA; and (iv) the committee may consult respectable people who are disinterested with regard to the value of the land. Table 3 provides procedures involved in the application of LAA.

Table 3: Application of the Land Acquisition Act 1894

Application of LAA	Procedures and Clearance
Negotiated Purchase and routine acquisition under the LAA	A LARP will document the procedures and valuation mechanism, and append a copy of the deed of sale. If negotiation fails, the LARP will provide details and document the routine procedures applied under the LAA and the SPS.

16. The following table describes the type of civil works required and proposed measures to prepare and implement LARPs.

Table 4: Civil Works and LARP Preparation

Retroactive Financing	Complete involuntary resettlement (IR) and indigenous peoples (IP) checklists and categorization and submit with project approval documents to ADB for clearance.
-----------------------	---

	Only category 'C' projects will be eligible for financing.
Reconstruction on existing alignment	No land acquisition and resettlement expected. Conduct sample spot checks on site and submit checklist and categorization forms to ADB for clearance prior to award of civil works contracts.
New alignments and new locations	LARPs will be prepared as a condition for award of civil works contracts and cleared by ADB.
Monitoring	The EAs/IAs conducts routine monitoring. Since the loan implementation period is three years, instead of semi -annual monitoring, The TA/ PMC will submit monitoring reports to ADB and the EA on a case-by-case basis confirming the LARPs or negotiated purchase has been implemented in accordance with the respective subproject LARP.

F. LAR Processing Procedures and Safeguard Documentation

17. The relevant EAs, with the support of TA consultants and the PMC, will process the screening checklists, and prepare LARPs and monitoring reports.

18. The following criteria for subproject selection will be applied:

- (i) Reconstruction on existing alignment.
- (ii) Avoid or to the extent possible, minimize land acquisition and resettlement (LAR). Select subprojects that do not require land acquisition or resettlement, or subprojects on unencumbered government land.
- (iii) Select projects of priority need for connectivity and protection of lives and livelihoods.
- (iv) Avoid subprojects that affect indigenous people
- (v) Minimal land acquisition required.
- (vi) Avoid or minimize land acquisition from flood-affected households.
- (vii) Except where legal owners for compensation are identified, pay entitlements and compensation in joint names to eligible men and women.

G. Procedure of Formulating a Land Acquisition and Resettlement Plan: Social Impact Assessment and Census

19. If resettlement impacts are unavoidable in implementing a subproject, the EA with the support of the TA/PMC consultant and the revenue staff, will formulate LARPs in parallel with subproject design according to the following procedure:

- (i) Complete the screening checklist. If land acquisition or resettlement is required, prepare LARPS.
- (ii) For retroactive financing, complete screening checklists and submit with approval request.
- (iii) Conduct Focus Group Discussions (FGD) including, consultations with women and vulnerable households to (a) obtain stakeholder inputs regarding how to avoid or at least minimize involuntary resettlement, and (b) to identify their needs and preferences.
- (iv) LARPs will be based on detailed design, detailed measurement survey as well as inventory of lost assets and census based on the final revenue record and compensation prices approved by the BOR and respective agencies. ESU will assess replacement costs through independent assessments of sales (private

- and in sales registers), local materials for structure and other immovable assets replacement valuation, and updated crop and trees price assessments including, consultation with the relevant agencies on price assessments. Undertake (a) a socioeconomic survey including sex disaggregated data collection to identify gender impacts and establish the social and economic baseline to prepare LARPs. ESU will inform ADB if there are changes in impacts and prepare updated LARPs accordingly. Each LARP will justify why they need to be updated.
- (v) Establish a 100% census survey of DPs, measure lost lands, complete an inventory of lost land and assets of all DPs and addresses of households, complete the land demarcation and measurement surveys (LDMS).

H. Consultation Participation and Disclosure

20. The FGDs undertaken for establishing baseline surveys will also focus on consultation with the DPs to identify their concerns and take into account special needs and considerations. Consultations will be gender inclusive and ensure vulnerable households are included. The decisions of such meetings will be recorded, and these records will indicate the responsibility and timeline for implementing the decisions. Each resettlement plan will document all public consultations held and the disclosure of resettlement information. During resettlement plan preparation, resettlement information will be disclosed to all DPs in their own language, and their views and opinions will be taken into consideration in finalizing the plans. Since many DPs are likely to be non-literate, the LARPs will be explained to them in separate groups. Particular attention will be placed on including women and vulnerable groups in all consultations. Final LARPs will be translated into local languages and disclosed through public notices posted at the EA/IA offices, published in newspapers, and posted on ADB's website. Affected people will be closely consulted in resettlement site selection and livelihood restoration as relevant.

21. Among the displaced communities, there are several dominant tribes and sub tribes that participate in mainstream economic and political activities and are represented in public institutions, civil services, and educational institutions. Social inequalities and vulnerabilities in these communities usually arise from economic differentiation, as land is owned by a few large, powerful families who rent it out to others who cultivate crops and raise livestock. Individual projects are unlikely to change this dominant mode of economic system. Through FGD, vulnerabilities of all affected groups including tribal groups and cultural minorities in the affected areas will be identified. This is to ensure effective consultations and that culturally- appropriate benefits will reach each displaced group. As part of this assessment, the EA/IA of each sector will examine the vulnerability of different groups in terms of potential exclusion from subproject benefits, negative subproject impacts, and the need for specific culturally compatible mechanisms for participation by women, the permanently disabled, and other vulnerable groups. If any of the above are found in a subproject area, the EA/IA will incorporate adequate measures to address such vulnerabilities in project design. If land acquisition or relocation becomes necessary, or indigenous people are affected, people's entitlements will be ensured through the resettlement plan that will be prepared in accordance with the framework.

22. ESU will be responsible for disclosing resettlement information and plans to all affected people in their own language. The project EA/IA will endorse the LARP before submission to ADB for review.

III. COMPENSATION ELIGIBILITY AND ENTITLEMENTS

A. Entitlements

23. The entitlements for Compensation, Resettlement and Rehabilitation Assistance may be enhanced to mitigate and improve livelihoods of the DPs but not be reduced or lowered in any of the subproject LARPs. Details are provided in the entitlement matrix.

B. Eligibility

24. The DPs eligible for compensation or rehabilitation provisions under the Program are:

- (i) All land owning DPs losing land or non-land assets, i.e., crops and trees whether covered by legal title or traditional land rights, whether for temporary or permanent acquisition.
- (ii) Tenants and share-croppers, whether registered or not; for all non-land assets, based on prevailing tenancy arrangements.
- (iii) DPs losing the use of structures and utilities, including titled and non-titled owners, registered, unregistered, tenants and leaseholders plus encroachers and squatters.
- (iv) Displaced persons losing business, income and salaries of workers or a person or business suffering temporary effects, such as disturbance to land, crops and business operations both permanently and also temporarily during construction.
- (v) Loss of communal property, lands, and public infrastructure.
- (vi) Vulnerable displaced persons identified through the impact assessment and FGD.
- (vii) In the event of relocation, all DPs will receive transitional and other support to reestablish shelter and livelihoods.

25. In order to avoid an influx of outsiders, compensation eligibility will be limited by a cut-off date for each subproject on the day of the beginning of the sub-projects impacts and census survey. The cut-off date will be announced through village institutions.

C. Entitlement Matrix

26. Compensation and rehabilitation entitlements are summarized in the Entitlement Matrix in Table 5.

Table 5: Entitlement Matrix

Assets lost	Specification	Displaced Person	Compensation Entitlements
Residential/ commercial land		Owner (legal/legalizable)	<ul style="list-style-type: none"> ▪ Cash compensation at replacement cost plus 15% compulsory acquisition surcharge (CAS) free of taxes, registration and transfer costs; or ▪ Land for land compensation through provision of plots of comparable value and location as the lost asset, including transitional support.
		Renter/leaseholder	<ul style="list-style-type: none"> ▪ Cash compensation value proportionate to the duration of the remaining lease period.
		Encroacher/Squatter	<ul style="list-style-type: none"> ▪ Self relocation allowance covering one year of agricultural income; or ▪ Provision of a replacement plot in a public resettlement area.

Assets lost	Specification	Displaced Person	Compensation Entitlements
Agricultural land, including cultivable land and uncultivable wasteland	All land losses irrespective of impact severity	Owner	<ul style="list-style-type: none"> ▪ Cash compensation at (market value replacement cost plus 15% CAS, free of taxes, of registration and transfer costs; or ▪ Land for land compensation through provision of plots of equal value and productivity as that lost.
		Sharecropper/Tenant (registered or not)	<ul style="list-style-type: none"> ▪ Cash compensation equal to the market value of the share of lost harvests: two shares if the land loss is permanent, one if it is temporary.
		Lease Tenant (registered or not)	<ul style="list-style-type: none"> ▪ Cash equivalent of the market value of the gross yield of lost land for the remaining lease years, and reimbursement of remaining lease cost. Or alternate lease arrangements...
		Encroacher/Squatter	<ul style="list-style-type: none"> ▪ Rehabilitation allowance equal to the market value of the harvest of lost land for one year (both rabi and kharif crops) in addition to standard crop compensation.
Residential and commercial structures		Owner of the structure, including Encroachers/Squatters	<ul style="list-style-type: none"> ▪ Cash compensation at full replacement cost for affected structures and other fixed assets, free of salvageable materials, depreciation and transaction cost and also transportation cost; or if partial loss, full cash assistance to restore the remaining structure. Fees and taxes (if applicable) will be waived. The option of relocation and relevant support will be discussed during the focus group discussions and included in the LARPs.
		Renter/Leaseholder	<ul style="list-style-type: none"> ▪ Cash compensation equivalent to three months rent or a value proportionate to the duration of the remaining lease.
Community Assets			<ul style="list-style-type: none"> ▪ Rehabilitation/substitution or cash compensation at full replacement cost of the affected structures and utilities.
Businesses		All DPs so impacted	<ul style="list-style-type: none"> ▪ Cash compensation equal to income during the interruption period, as determined through the SIA and included in the LARP
Employment		All DPs so impacted	<ul style="list-style-type: none"> ▪ Indemnity for lost wages for the period required to reestablish business as determined through the Social Impact Assessment (SIA) and included in the LARP.
Crops	Affected crops	Cultivator of crop	<ul style="list-style-type: none"> ▪ Crop compensation in cash at the full market rate for one year's agricultural income (both rabi and kharif harvests). If sharecropped or a tenant then compensated according to shares.
Trees	All affected trees	Owner	<ul style="list-style-type: none"> ▪ Fruit trees: compensation to reflect income replacement as assessed by Horticulture department based on market value of annual produce, projected for number of years the tree can potentially produce fruit. ▪ Timber trees: trees grown and/or used for timber then compensation is to reflect the market value of tree's wood content, based on the wood measurement survey of forest department.

Assets lost	Specification	Displaced Person	Compensation Entitlements
Relocation	Transport/ transition costs	All DPs to be relocated	<ul style="list-style-type: none"> Provision of allowances to cover transport costs and transitional costs on actual cost basis at current market rates. If physical relocation of the affected households is required and requested by the displaced persons, appropriate relocation sites will be developed or through support provided to flood victims. The need for support during the transitional period will be assessed through the SIA and included in the LARP.
Vulnerable DP livelihood support		Poor and female headed households and other vulnerable households, including the elderly or other groups as identified through the SIA.	<ul style="list-style-type: none"> Cash allowance equivalent to at least 6 months of minimum wages of PKRs 7000/- per month as fixed by the GOP (in accordance with figures released by the Province) using the poverty line index or as determined through the social impact assessment surveys. First priority for skills training under emergency support. Job placement program employing DPs in project reconstruction activities. All DPs and households if flood victims are also eligible for government flood assistance support.
Unidentified Losses	Unanticipated impacts	All DPs	<ul style="list-style-type: none"> Dealt with as appropriate during sub-project implementation according to the ADB policy.

D. Land for Land Compensation

27. Land for land compensation has significant advantages in that it reduces the chance of displaced people spending their compensation on items that will not provide them with an alternative economic livelihood. However, in many locations there is limited land or land will not be available for immediate dispensation. In cases where DPs desire land for land compensation, then the process by which replacement land is identified needs to be recorded. When land for land compensation is used, along with provision of replacement housing, then the replacement plots are to include facilities and services such as water supply, sanitation, roads, drainage and electricity. The LARPs will detail the costs for site preparation and for the provision of these basic facilities including, transaction costs such as site survey, land registration. The LARPs will clearly detail site preparation and resettlement schedules and tenure arrangements. In managing the land for land relocation, the socio-cultural and religious characteristics of the displaced persons, gender considerations and host communities will be taken into consideration and the distance between the old and new locations should be minimized as far as is possible. If land for land cannot be found, the LARPs will clearly demonstrate the lack of land.

E. Implementation Arrangements

28. To address the institutional constraints created by the flood, the three year project implementation period including 30% completion within six months, the following implementation arrangements will be established.

E.1 Federal and Provincial Subprojects

29. For federal subprojects, the National Highway Authority (NHA) will be the EA and for provincial projects, relevant sector agencies will be the EA/IA. All EA/IAs will be supported by TA and the Project Management Consultants. A separate Environment and Social Unit (ESU) will be established within each EA/IA project management unit headed by a project director (PD)

in each province. The ESU will appoint a director, social and environment safeguards, social and gender. A resettlement specialist from the EA will be assigned as a focal person to coordinate social safeguard activities until project completion. Each EA will assign a data operator to manage the database related to the unit, will include monitoring specialists and 1 staff dedicated to managing project related grievance. Land acquisition and resettlement tasks will be supported by consultants. Each ESU will consist of at least 1 resettlement specialist. NHA will require, social survey teams, including, retired *patwaris*, collector, clerical staff, social mobilizers, a grievance officer, management information system (MIS) specialist, and monitoring specialists. For highway projects with land acquisition, the consultants responsible for land and revenue matters will function out of the revenue offices to ensure expeditious completion of land acquisition and payment of compensation. Revenue staff will support the ESU in preparation of the LARPs. Each ESU will maintain a computerized database as verified and confirmed with revenue officials and MIS to ensure all details regarding LARP preparation and implementation are tracked and accessible. Information disclosure will be systematically implemented and ADB's requirements for disclosure will be followed.

30. The EA/IA, will be responsible for meeting the LAR and other safeguard requirements and will work closely with the respective BORs and relevant revenue staff at all levels. Consultants will build the capacity of the ESU.

E.1.2 Consultant Support

31. From the inception, the TA consultant and the PMC, with support from the ESU and in coordination with relevant government agencies, will be responsible for all tasks related to LAR, including the preparation of monitoring and disclosure of reports. The respective EA/IAs and BORs and related local agencies will provide the necessary support services and will be responsible for facilitating expeditious preparation implementation and monitoring of LAR., Consultants will work with the revenue department and the ESU to support the following : (i) consultation with affected communities and information disclosure (ii) support the preparation of the revenue record and paperwork required for finalizing the award (iii) support displaced persons in preparing their documents to receive compensation (iv) participate in meetings to ensure transparency and maintain records (v) support NHA in disclosure of LARP and monitoring reports (vi) support the functioning of the grievance mechanism (vii) establish and maintain an up to date management information system to include all relevant information on displaced persons.

32. The roles and responsibilities of the ESU are as follows:

- i. The consultants will support federal and provincial EAs/IAs and build the capacity of ESU;
- ii. The consultants or the EAs/IAs will also recruit survey teams as necessary to support field surveys;
- iii. Prepare screening and categorization checklists;
- iv. Conduct consultations and information disclosure
- v. Coordinate with relevant local agencies, particularly revenue departments;
- vi. Prepare LARPs
- vii. Prepare and submit monitoring reports to confirm resettlement plans have been implemented;.

- viii. All procedural requirements including translation and disclosure of LARPs will be implemented by the ESU supported by the consultant;
- ix. Support the EA/IA and ensure the delivery of compensation and other entitlements and maintain records;
- x. The consultant and the EA/IAs in coordination will be responsible for maintaining a complete database of all affected persons, inventory of assets, payments and other relevant field data;
- xi. Develop a functioning grievance function with gender sensitive protocols and outreach and links to the provincial ombudsman's office; provide training to ESU staff to handle grievance and monitor progress.
- xii. Maintain an MIS related resettlement and social development

F. Grievance Redress Mechanism

33. Field level grievances will be addressed through a local grievance redress committee (GRC) to be formally constituted by the EA/IA under each subproject. The GRC will consist of a specially recruited grievance officer, a *jirga* member or notable person, a representative from the DP, locally present NGO representative, the ESU resettlement specialist and 1 revenue staff. Women will be members of the GRC. The GRC will be formally notified and established at the project sites. The GRCs' will function as open forums for hearing complaints and exploring quick resolutions to resolving conflicts. The GRC will be required to develop an outreach program including links to the provincial ombudsman's office. Each GRC will record its deliberations and inform the concerned parties of a resolution within 2 weeks of its findings and recommendations. If the GRC cannot resolve the grievance, they will be facilitated to take their complaints to the provincial ombudsmen. DPs have the right to appeal to the courts. Communities will be informed about the GRC through the ESU outreach program. Grievance may also be addressed to ADB Office of Special Projects Facilitator.

34. To ensure women have access to the grievance mechanism, separate focus group discussions will be held with them to design protocols that are suited to their needs including procedures and mechanisms to enable their access to the mechanism, including, access to the provincial ombudsman's office. Outreach programs will be tailored to women's needs to ensure information is communicated to them.

G. LARP Budgeting and Financing

G.1 Budget

35. All LAR costs inclusive of compensation, resettlement and rehabilitation allowances livelihood and income restoration support form an integral component of project costs, and will be included in the LARP under separate budget lines indicating unit costs under separate heads. NHA and provinces will ensure adequate funds are available on time to implement the LARPs. EAs will be responsible for financing and disbursing (i) all entitlements that are not payable under the requirements of the LAA; (ii) logistics to run the ESU including, translations and outreach and GRC functions; and (iii) any other functions related to ensuring the ESU functions effectively and delivers timely outputs.

H. Monitoring and Evaluation

36. The land acquisition and resettlement process of each subproject will be monitored both internally by the EA and by the TA/PMC consultants. Internal monitoring reports will be

submitted by the EA/IAs on a quarterly basis to ADB. The TA consultant, PMC or supervision consultant will submit external monitoring reports confirming satisfactory implementation of LARPs as and when each subproject LAR activities are completed but no later than six months from implementation of LARPs. The monitoring reports will be translated and disclosed to the displaced persons and placed on the project website by the respective EAs. ADB reserves the right to monitor subprojects on a case-by-case basis.

Appendix 1

INVOLUNTARY RESETTLEMENT PRINCIPLES AND OBJECTIVES

ADB'S SAFEGUARD POLICY STATEMENT (ADB SPS 2009)

Objectives: To avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

Scope and Triggers: The involuntary resettlement safeguards covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

Policy Principles:

1. **Screen the project early on** to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.
2. **Carry out meaningful consultations with displaced persons, host communities, and concerned non-government organizations.** Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line. These include the landless, the elderly, women and children. Specific safeguards cover Indigenous People, including those without statutory title to land, including those having communal rights, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the displaced persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase. **Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based and where it is possible to give cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where these are possible.**
3. **Provide physically and economically displaced persons with needed assistance**, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.
4. **Improve the standards of living of the displaced poor and other vulnerable groups**, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.
5. Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
6. **Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.**
7. **Prepare a resettlement plan** elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
8. **Disclose a draft resettlement plan**, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to displaced persons and other stakeholders. Disclose the resettlement plan and its updates to displaced persons.
9. **Conceive and execute involuntary resettlement as part of a development project or program.** Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.
10. **Pay compensation and provide other resettlement entitlements before physical or economic displacement.** Implement the resettlement plan under close supervision throughout project implementation.

11. **Monitor and assess resettlement outcomes**, their impacts on the standards of living of displaced persons and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of the resettlement monitoring. **Disclose monitoring reports.**

Source: Asian Development Bank, SPS 2009.

Appendix 2

OUTLINE OF A RESETTLEMENT PLAN

1. This outline is part of the Safeguard Requirements. A resettlement plan is required for all projects with involuntary resettlement impacts. The level of detail and comprehensiveness is commensurate with the significance of potential involuntary resettlement impacts and risks. The substantive aspects of the outline will guide the preparation of the resettlement plans, although not necessarily in the order shown. If indigenous people are affected, the plan will identify the risks and include special provisions to mitigate these risks.

A. Executive Summary

2. This section provides a concise statement of project scope, key survey findings, entitlements, and recommended actions.

B. Project Description

3. This section provides a general description of the project, discusses project components that result in land acquisition, involuntary resettlement, or both and identify the project area. It also describes the alternatives considered to avoid or minimize resettlement. The section is also to include a table with quantified data and provide a rationale for the final decision.

C. Scope of Land Acquisition and Resettlement

4. This section:

- (i) discusses the project's potential impacts, and includes maps of the areas or zone of impact of project components or activities;
- (ii) describes the scope of land acquisition (provide maps) and explains why it is necessary for the main investment project;
- (iii) summarizes the key effects in terms of assets acquired and displaced persons; and
- (iv) provides details of any common property resources that will be acquired.

D. Socioeconomic Information and Profile

5. This section outlines the results of the social impact assessment, the census survey, and other studies, with information and/or data disaggregated by sex, vulnerability, and other social groupings, including:

- (i) define, identify, and enumerate the people and communities to be affected; describe the likely impacts of land and asset acquisition on the people and communities affected taking social, cultural, and economic parameters into account;
- (ii) identify all households (including list of names) eligible for livelihood assistance to support livelihood loss due to delayed land compensation.
- (iii) discuss the project's impacts on the poor, and other vulnerable groups; and
- (iv) identify gender and resettlement impacts, and the socioeconomic situation, impacts, needs, and priorities of women.

E. Information Disclosure, Consultation, and Participation

6. This section:

- (i) identifies project stakeholders, especially primary stakeholders;
- (ii) describes the consultation and participation mechanisms to be used during the different stages of the project cycle;
- (iii) describes the activities undertaken to disseminate project and resettlement information during project design and preparation for engaging stakeholders including women;
- (iv) summarizes the results of consultations with displaced persons (including host communities), and discusses how concerns raised and recommendations made were addressed in the resettlement plan;
- (v) confirms disclosure of the draft resettlement plan to displaced persons and includes arrangements to disclose any subsequent plans; and
- (vi) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for consultation with displaced persons during project implementation.

F. Grievance Redress Mechanisms

7. This section describes mechanisms to receive and facilitate the resolution of displaced persons' concerns and grievances. It explains how the procedures are accessible to displaced persons and provides access to women. It described the terms of reference, operating procedures, protocols outreach program and linkages to the provincial ombudsman's office.

G. Legal Framework

8. This section:

- (i) describes national and local laws and regulations that apply to the project and identify gaps between local laws and ADB's policy requirements; and discuss how any gaps will be addressed;
- (ii) describes the legal and policy commitments from the executing agency for all types of displaced persons;
- (iii) outlines the principles and methodologies used for determining valuations and compensation rates at replacement cost for assets, incomes, and livelihoods; and set out the compensation and assistance eligibility criteria and how and when compensation and assistance will be provided; and
- (iv) describes the land acquisition process and prepare a schedule for meeting key procedural requirements.

H. Entitlements, Assistance and Benefits

9. This section:

- (i) defines displaced persons' entitlements and eligibility, and describes all resettlement assistance measures (includes an entitlement matrix);
- (ii) identify and document the households who will be eligible for transitional livelihood support if compensation payments for land are delayed for six months;

- (iii) specifies all assistance to vulnerable groups, including women, and other special groups; and.
- (iv) outlines opportunities for displaced persons to derive appropriate development benefits from the project.

I. Relocation of Housing and Settlements

10. This section:

- (i) describes options for relocating housing and other structures, including replacement housing, replacement cash compensation, and/or self-selection (ensure that gender concerns and support to vulnerable groups are identified);
- (ii) describes alternative relocation sites considered; community consultations conducted; and justification for selected sites, including details about location, environmental assessment of sites, and development needs;
- (iii) provides timetables for site preparation and transfer;
- (iv) describes the legal arrangements to regularize tenure and transfer titles to resettled persons;
- (v) outlines measures to assist displaced persons with their transfer and establishment at new sites;
- (vi) describes plans to provide civic infrastructure; and
- (vii) explains how integration with host populations will be carried out.

J. Income Restoration and Rehabilitation

11. This section:

- (i) identifies livelihood risks particularly to vulnerable and indigenous people (if affected) and prepare disaggregated tables based on demographic data and livelihood sources;
- (ii) describes income restoration programs, including multiple options for restoring all types of livelihoods (examples include project benefit sharing, revenue sharing arrangements, joint stock for equity contributions such as land, discuss sustainability and safety nets); outlines measures to provide social safety net through social insurance and/or project special funds;
- (iii) describes special measures to support vulnerable groups;
- (iv) explains gender considerations; and
- (v) describes training programs.

K. Resettlement Budget and Financing Plan

12. This section:

- (i) provides an itemized budget for all resettlement activities, including for the resettlement unit, staff training, monitoring and evaluation, and preparation of resettlement plans during loan implementation.
- (ii) describes the flow of funds (the annual resettlement budget should show the budget-scheduled expenditure for key items).
- (iii) includes a justification for all assumptions made in calculating compensation rates and other cost estimates (taking into account both physical and cost

- contingencies), plus replacement costs.
- (iv) includes information about the source of funding for the resettlement plan budget.

L. Institutional Arrangements

13. This section:

- (i) describes institutional arrangement responsibilities and mechanisms for carrying out the measures of the resettlement plan;
- (ii) includes institutional capacity building program, including technical assistance, if required;
- (iii) describes role of nongovernment organizations (NGOs), if involved, and organizations of displaced persons in resettlement planning and management; and
- (iv) describes how women's groups will be involved in resettlement planning and management,

M. Implementation Schedule

14. This section includes a detailed, time bound, implementation schedule for all key resettlement and rehabilitation activities. The implementation schedule should cover all aspects of resettlement activities synchronized with the project schedule of civil works construction, and provide land acquisition process and timeline.

N. Monitoring and Reporting

15. This section describes the mechanisms and benchmarks appropriate to the project for monitoring and evaluating the implementation of the resettlement plan. It specifies arrangements for participation of displaced persons in the monitoring process. This section will also describe reporting procedures.

Appendix 3

INVOLUNTARY RESETTLEMENT IMPACT CATEGORIZATION CHECKLIST

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land				
1. Will there be land acquisition?				
2. Is the site for land acquisition known?				
3. Is the ownership status and current usage of land to be acquired known?				
4. Will easement be utilized within an existing Right of Way (ROW)?				
5. Will there be loss of shelter and residential land due to land acquisition?				
6. Will there be loss of agricultural and other productive assets due to land acquisition?				
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?				
8. Will there be loss of businesses or enterprises due to land acquisition?				
9. Will there be loss of income sources and means of livelihoods due to land acquisition?				
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
10. Will people lose access to natural resources, communal facilities and services?				
11. If land use is changed, will it have an adverse impact on social and economic activities?				
12. Will access to land and resources owned communally or by the state be restricted?				
Information on Displaced Persons:				
Any estimate of the likely number of persons that will be displaced by the Project? [] No [] Yes If yes, approximately how many? _____				
Are any of them poor, female-heads of households, or vulnerable to poverty risks? [] No [] Yes				
Are any displaced persons from indigenous or ethnic minority groups? [] No [] Yes				

Note: The project team may attach additional information on the project, as necessary.

Environmental Assessment Report

Environmental Assessment and Review Framework

Project Number: 44372

March 2011

Proposed Loan and Technical Assistance Grant Flood Emergency Reconstruction Project (FERP)

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

- I. INTRODUCTION
- II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY
- III. ANTICIPATED ENVIRONMENTAL IMPACTS
 - A. Description of the Project
 - B. Environmental Impacts
- IV. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS
 - A. Requirements to Environmental Screening and Classification
 - B. Requirements to Environmental Assessments and Environmental Management Plans
- V. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM 8
 - A. Public Consultation
 - B. Information Disclosure
 - C. Grievance Redress Mechanism
- VI. INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES
- VII. MONITORING AND REPORTING

APPENDICES

- 1. Rapid Environmental Assessment (REA) Checklist
- 2. Outline of Environmental Impact Assessment Report

I. INTRODUCTION

1. Pakistan typically receives about half its annual rainfall of 250–500 mm during July and August. However, in July 2010 there were reports of 24-hour totals in excess of 300 mm just on 29th July. Over the short span of a month Pakistan received the greatest volume of rainfall in the past 80 years, triggering the worst floods the country has experienced since 1929. Floods started in the Khyber Pakhtoonkhwa (KPK) province and progressed through Balochistan, central and southern Punjab all the way to Sindh in the south of the country. They also affected vast areas in Azad Jammu and Kashmir (AJK). According to the National Disaster Management Authority (NDMA) the rains/floods have affected over 20 million people and have caused severe damage to infrastructure in the affected areas.

2. In the wake of the floods, the Government of Pakistan requested ADB and World Bank to lead a Damage and Needs Assessment (DNA), to assess the extent of the damage and gauge rehabilitation and reconstruction needs. This DNA was conducted to assess damages across the following sectors: Water and Sanitation, Transport and Communications, Energy, Agriculture, Irrigation, Health, Governance Infrastructure, Housing, Education, Environment, Hazard Risk Management, Climate Change and Flood Management, Livelihoods, and Private Sector & Industries. The DNA has prioritized the areas to be addressed and the level of intervention required across each sector.

3. The Asian Development Bank (ADB) will support the efforts of the Government of Pakistan (GoP) for rehabilitation and reconstruction of infrastructure in the sectors of transport (primarily roads and bridges) and irrigation (including flood control measures). The assistance will be provided through the Flood Emergency Reconstruction Project (FERP), which has been designed according to the priorities identified in the DNA prepared by ADB and the World Bank in collaboration with the federal and provincial governments and other development partners, and the Flood Reconstruction Plan 2010 prepared by the Planning Commission of Pakistan.

4. The objective of this EARF is to establish systems and functions that will ensure that conditionalities are built into each initiative at its design stage such that through reconstruction, improved and environmentally sustainable structures are built that have better resistance to natural calamities, particularly floods.

5. The EARF is endorsed by the GoP and provincial governments, and will be translated and disclosed on the websites of the respective sector agencies in the affected districts and the ADB website.

II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

6. All subprojects that may be undertaken as part of the Flood Emergency Reconstruction Project (FERP) will be screened, classified, and assessed based on ADB's Safeguard Policy Statement (SPS), 2009, and Pakistan's environmental legislation.

7. All development initiatives undertaken in Pakistan, according to the Pakistan Environmental Protection Act 1997 (PEPA 1997) are required to undergo an "Initial Environmental Examination" (IEE), or where the project is likely to cause an adverse environmental effect, an "Environmental Impact Assessment" (EIA). The environmental assessment reports are filed with the Pakistan Environmental Protection Agency for review and approval prior to project construction.

8. The Act (PEPA 1997) delegates to the provincial EPAs the specific powers of granting IEE/EIA approval, as well as implementation of IEE and EIA regulations and procedures. In order to facilitate the IEE/EIA preparation process the Federal Ministry of Environment has

provided general policy/guidelines to guide and inform developers regarding preparation of environmental assessment reports.

9. Environmental clearance of ADB is stipulated in:

- The Safeguard Policy Statement (2009);
- Operations Manual F1 that describes the procedures to incorporate safeguards in ADB projects.

III. ANTICIPATED ENVIRONMENTAL IMPACTS

A. Description of the Project

10. The FERP will be aimed at sectors of transport and irrigation. The project will rehabilitate and reconstruct two main types of infrastructure: (i) roads and bridges at national and provincial levels; and (ii) irrigation infrastructure at provincial levels. These are briefly discussed below:

- Roads: The floods and rains of 2010 have damaged various categories of roads, railways, bridges, civil airports and telecommunications infrastructure. The FERP will mainly rehabilitate and reconstruct national and provincial roads including bridges. In the subprojects identified to date, mostly comprise of rehabilitation of road sections ranging in length from 5 km to 150 km for national highways, and 0.5 km to 50 km for provincial roads. The reconstruction of some bridges is also included.
- Irrigation and flood management: The irrigation network that supplied water to about 50,000 hectares of agricultural lands has suffered great damage. For the rehabilitation and reconstruction of provincial irrigation systems, FERP subprojects will focus on three categories of irrigation infrastructure: (i) barrages and river training works; (ii) canal drains and appurtenant structures; and (iii) flood protection embankments.

B. Environmental Impacts

11. It is anticipated that beside significant positive environmental impacts associated with clearance, removal and disposal of debris, reconstruction of roads, and rehabilitation of the irrigation network, the FERP can potentially have adverse environmental impacts typical for construction and reconstruction projects.

12. Construction Impacts:

13. Adverse environmental impacts associated with the reconstruction and rehabilitation activities of this emergency intervention relate largely to the construction phase of the individual projects. The degree, magnitude and intensity of the actual impacts will depend upon the nature of the intervention - impact intensity of road construction projects will be very different from the impact intensity associated with irrigation channel rehabilitation.

14. Broadly, the impacts stemming from construction activities can be of the following types:

Soil Erosion and Dust Emissions: Construction activities will involve vegetation clearing, land excavation, quarrying, cut and fill, asphalt machine operation, formation of windrows, stockpiles of gravel etc. All of these, if not performed carefully can result in soil erosion in arid areas. They activities can cause soil to dislodge and increase the rate of soil loss from an area beyond that occurring under natural conditions. This movement of soil will also give rise to dust emissions. Therefore, it will be necessary to introduce intensity specific mitigation measures to counter the impacts of soil erosion and dust emissions.

Noise Levels: The operation of heavy equipment on construction sites such as excavators, diggers, bulldozers, dumper trucks, rollers, stone crushers and controlled rock blasting result in noise generated well above the ambient noise levels in rural areas. It is important to introduce noise control measures as part of the construction stage mitigation measure to bring construction noise levels down to an acceptable level. Background ambient noise levels will need to be measured, and then compared with typical values for noise generated by construction equipment.

Groundwater Quantity: Despite devastating floods in Pakistan, water resources, especially ground water remain scarce in various parts of the country. If groundwater is identified as sensitive in the area where the subproject is to be located, then it is important to develop mitigation measures that restrict and monitor abstraction to obliterate the possibility of over exploitation.

Soil and Groundwater Quality: With large scale construction activities where heavy machinery is operated, soil contamination by oil and chemical leaks has a significant probability of occurrence. Groundwater contamination by construction wastes and medium scale spills is also possible. The subprojects will need to factor in this probability and develop systems and mechanisms to handle such incidents, including the final disposal of contaminated soil, and containment of contaminants in groundwater.

Drainage: The drainage patterns in areas may have been damaged by the accumulation of debris and heavy silt. It is important to develop mitigation measures that ensure that the new construction does not disrupt the natural drainage patterns of the area.

IV. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS

15. The following general criteria will be adopted for selection of the subprojects under FERP:

- (i) The subprojects shall only be selected from the list of projects prioritized by the Government;
- (ii) The subprojects shall only involve activities that follow all the government regulations;
- (iii) Types of projects listed in ADB SPS's Appendix 5 (ADB Prohibited Investment Activities List) do not qualify for ADB's financing; and
- (iv) The sub-projects that can have considerable adverse impacts to the environment or located in environmentally sensitive areas are subject to mandatory environmental assessment as detailed below.

16. A final check on conformity with the selection criteria will be the submission of selected subprojects for ADB's clearance. Any subproject, which does not meet the general criteria listed above may be rejected.

17. All sub-projects will be subjected to the environmental assessment process. This is a process of environmental analysis and planning to address the environmental impacts and risks associated with a project. FERP has been categorized as Environment Category B. However, there is a likelihood that future sub-projects may fall under Environment Category A. Such high risk sub-projects (Category A) will require a full-scale environmental impact assessment (EIA).

In view of the large number of subprojects in the irrigation sector (approximately 266), and the limited nature of their environmental impacts, a sectoral IEE may be considered.

18. All environmental assessments will follow ADB's disclosure requirements. However, since this is an emergency assistance programme, for projects requiring immediate and urgent execution that may be Category A, the 120 days EIA disclosure requirement prior to board approval will be changed to 120 days disclosure prior to the release of funds for the sub-project.

19. For subprojects proposed for Retroactive Financing, an environmental screening will be carried out through REA checklists, based on which it will be decided whether a detailed environmental audit is required. If the audit is carried out, an environmental audit report will be prepared and submitted to ADB for approval. The outline of a typical environmental audit report is attached as Appendix 3.

A. Requirements to Environmental Screening and Classification

20. All subprojects will be screened to determine their environmental category based on the ADB's Rapid Environmental Assessment (REA) Checklist. Templates of the REA for sub-projects that may fall across the selected sectors (road transport, irrigation and flood management) are attached in Appendix 1. Categorization is to be based on the most environmental sensitive component, which implies that if any one component of a sub-project has potential of significant adverse environmental impacts, then the project is to be classified as Category A regardless of potential environmental impacts of other aspects of the project. In general, a project will be classified as 'Category A' if the project:

- i. has a significant level of environmental impacts requiring complex mitigation measures needing to be prepared through an in depth assessment of the impacts and detailed study for preparing mitigation measures; and
- ii. will generate impact on an ecologically sensitive area, particularly if the project is located in buffer or core zone of any designated specially protected areas, or area of international significance (such as Ramsar site) or cultural heritage and archaeological sites.

21. Other infrastructure rehabilitation subprojects that do not fall into the above category are typically classified as Category B or C depending upon the scale of impacts.

B. Requirements for Environmental Assessments and Environmental Management Plans

22. It is expected that the majority of sub-projects will involve the rehabilitation or reconstruction of damaged infrastructure at its existing location. However in some instances there may be a requirement to relocate infrastructure to new locations. In these instances the EA/IA will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people. If potentially adverse environmental impacts and risks are identified, the EA/IA will undertake an environmental assessment as early as possible in the project cycle. For subprojects with potentially significant adverse impacts that are diverse, irreversible, or unprecedented, the EA/IA will examine alternatives to the project's location, design, technology, and components that would avoid, and, if avoidance is not possible, minimize adverse environmental impacts and risks. The rationale for selecting the particular sub-project location, design, technology, and components will be properly documented, including, cost-benefit analysis, taking environmental

costs and benefits of the various alternatives considered into account. The "no action" alternative will be also considered.

23. Impacts and risks will be analyzed in the context of the each subproject's area that encompasses:

- i. the primary subproject site(s) and related facilities;
- ii. associated facilities that are not funded as part of the FERP, and whose viability and existence depend exclusively on the sub-project and whose goods or services are essential for successful operation of the sub-project;
- iii. areas and communities potentially affected by cumulative impacts of the FERP, and other sources of similar impacts in the geographical area; and
- iv. areas and communities potentially affected by impacts from unplanned but predictable developments caused by the subproject that may occur later or at a different location.

24. Environmental impacts and risks will also be analyzed for all relevant stages of the project cycle, including preconstruction, construction, operations, decommissioning, and postclosure activities such as rehabilitation or restoration.

25. The EA/IA will prepare an Environmental Management Plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. The structure and composition of the EMP is provided in Appendix 2.

26. Since FERP is being administered as an emergency assistance, there will be a need to implement subprojects, particularly in the irrigation and flood protection sector, on an urgent basis before the onset of monsoon rains. A review of available information on these subprojects suggests that they are of a similar nature and will not have extensive or severe environmental impacts. Hence, based on environmental screening through REA checklists, sectoral (generic) IEEs may be prepared for such subprojects. However, where the REA checklists indicate environmental impacts of a serious nature, a detailed IEE will be carried out. The same environmental assessment and management procedure will also be employed for provincial road rehabilitation and reconstruction projects.

27. The EA/IA should ensure that ADB be given access to undertake environmental due diligence for all subprojects. However, the EA/IA has the main responsibility for undertaking environmental due diligence and monitoring the implementation of environmental mitigation measures for all subprojects. The due diligence report as well as monitoring reports on implementation of the environmental management plan needs to be documented systematically and be available to the public.

V. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCE REDRESS MECHANISM

A. Public Consultation

28. The DNA provides an overview of the total damage caused by the floods. The analysis also indicates the type of projects that will need to be undertaken, and a prioritized list of

interventions across the sectors of road transport and irrigation and flood management has been compiled in consultation with the relevant agencies of the provincial and federal governments. Although these projects will be undertaken for the welfare of the communities, to rehabilitate, or reconstruct important infrastructure, it is still likely that the environment, communities and immediate stakeholders may be affected by the reconstruction exercise. In cases, infrastructure may need to be constructed along new alignments, thereby, disturbing habitat that was previously not affected. In order to minimize any impacts on the already marginalized communities and the environment rendered fragile by the devastating floods, it is important to involve communities in the reconstruction process through a system of consultation. Consultation will be based on the following principles:

- i. Early start in the individual project preparation stage and continuation throughout the project cycle;
- ii. Timely disclosure of relevant information in a comprehensible and readily accessible to affected people format;
- iii. Ensuring the absence of intimidation or coercion during public consultation;
- iv. Gender inclusive and responsive with focus on disadvantaged and vulnerable groups, and
- v. Enabling the integration of all relevant views of affected people and stakeholders into decision-making.

B. Information Disclosure

29. Overall responsibility for ensuring that the environmental requirements of the Project set forth in ADB's Safeguard Policy Statement 2009 and PEPA 1997 lies with the relevant EA/IA implementing the individual projects.

30. All environmental documents are subject to public disclosure, and are therefore to be made available to public;

31. All environmental assessment documentation for Category B subprojects (IEEs) will be posted on the ADB website;

32. Under the SPS (2009), If any Category A subprojects are identified, the first working Draft EIA is to be prepared, and posted on the ADB website 120 days before board approval. However, as this is an emergency assistance project, there may be an urgency to implement a selected subproject. In such a case, the Draft EIA may be prepared and posted on ADB's website 120 days prior to release of funding.

33. All IEE/EIAs have to be reviewed by ADB before being disclosed to the public; and,

34. The Government will ensure that meaningful public consultations are undertaken during the assessment process for the subprojects.

C. Grievance Redress Mechanism

35. Since FERP centers around displaced families, destroyed infrastructure and lost livelihoods, it is anticipated that there will be complaints from the communities at various levels pertaining to the environmental impacts of the infrastructure being rehabilitated or reconstructed.

36. Field level grievances will be addressed through a local Grievance Redress Committee (GRC) to be formally constituted by the EA/IA. For national roads the GRC will be instituted

under each sub-project, while for the provincial roads and irrigation infrastructure the GRCs will be instituted under the relevant Project Management Unit (PMU). The GRC will include the Environment and Social Unit's (ESU) Environment Specialist in addition to a specially recruited grievance officer and a local notable. The GRCs will be formally notified and established at the project sites, and will function as open forums for hearing complaints and exploring quick resolutions to resolving conflicts. Each GRC will record its deliberations and inform the concerned parties of a resolution within 2 weeks of its findings and recommendations. Communities will be informed about the GRC through the ESU outreach programme. Additionally Environmental Tribunals exist at the provincial level and can be approached for the resolution of conflicts and grievances that cannot be resolved by the GRC. Grievance may also be addressed to ADB's Office of Special Projects Facilitator.

VI. INSTITUTIONAL ARRANGEMENT AND RESPONSIBILITIES

A. Institutional Arrangements and Responsibilities

37. FERP will be coordinated by the Planning Commission at the federal level. The Planning Commission will work closely with the provincial Planning and Development Departments (P&DD), and the Executing and Implementing Agencies (EA/IA). Institutional arrangements and responsibilities for various categories of subprojects are detailed below.

38. For federal subprojects, the National High Authority (NHA) will be the EA and for provincial projects, relevant sector agencies will serve as the EA. All EA/IAs will be supported by TA and the Project Management Consultants. A separate Environment and Social Unit (ESU) will be established within each EA/IA's Project Management Unit (PMU) in the office of the Project Director (PD). The ESU will appoint a Director, Social and Environment Safeguards, and an Environment Specialist. Environmental management and monitoring tasks will be supported by consultants. The PMU will ensure that all subprojects comply with ADB's Safeguard Policy Statement (2009) and PEPA 1997.

39. The ESU will be responsible for:

- Appointing an environment specialist to monitor the implementation of environmental management measures required for each subproject.
- Preparing environmental screening checklists and classifying sub-projects that have not been yet classified.
- Based on the checklist and as per ADB SPS (2009) and PEPA 1997 requirements, preparing IEEs and EMPs.
- Submitting the checklists and IEE reports to ADB as part of the approval of subproject.
- Ensuring that EMPs are included in Tender documents.
- Ensuring that all regulatory clearances are obtained before starting civil works for the subproject.
- Ensuring that the EMPs, including all proposed mitigation measures and monitoring programmes are properly implemented.
- Undertaking monitoring of subprojects and preparing environmental monitoring reports every six months (in case of projects with long duration) and post-project reports (for shorter projects), to be delivered to ADB.

- In the case of unpredicted environmental impacts occurring during project implementation, preparing and implementing a Corrective Action Plan (CAP).
- In case of subprojects with significant environmental impacts, having an IEE report (for category B) (outline of an environmental assessment report is attached as Appendix 2), including an EMP prepared for public disclosure.
- In the case that a Category B subproject needs to have its siting or alignment changed or its environmental classification reconfirmed, reviewing it to determine whether a supplementary study is required. If so, carry out the study and implement any amendments to the original EMP.
- Preparing a project specific EMP for the operations that includes a sub-plan for each of the work areas.
- Providing awareness training in environmental management for all employees working on the subproject.
- Ensuring that meaningful public consultations (including both men and women) are undertaken with affected groups and local NGOs. The list of people attending the consultation, time and locations, subjects discussed during consultation will be recorded in a systematic manner.
- Retroactive financing – In the case of subprojects identified for Retroactive financing, carrying out environmental audits (including screening, site visits, and review of tender documents) to ensure that ADB's environmental safeguard requirements have been met, and preparing environmental audit reports.
- Sharing information and disclosure of environmental safeguard documents (including any Corrective Action Plans prepared in cases of change to original project design) as required.

40. ADB will take the following responsibilities:

- In case of IEEs review them as a basis for the approval of subprojects.
- Publicly disclose the final IEE before project appraisal, a new or updated IEE and corrective action plan prepared during project implementation, if any, as well as environmental monitoring reports on the ADB website.
- Monitor the implementation of the EMP and due diligence as part of overall project review mission.
- Provide assistance to the EA/IA, if required, in carrying out its responsibilities and safeguard capacity building.

B. Staffing Requirements and Budget

41. Consultant support for environmental management and monitoring will be provided to enhance the existing resources of each of the EA/IA. One Environmental Specialist will be based in each of the Environment and Social Units (ESUs) of the respective PMUs.

42. FERP's costs will incorporate a budget and resources needed to (i) implement the environmental review and screening procedure, (ii) undertake the environmental assessment studies for the subprojects, (iii) monitor the implementation of EMPs, and (iv) undertake environmental mitigation measures as required.

43. The cost of conducting training, undertaking monitoring, procuring laboratory equipment, hiring environmental consultants, and implementing the environmental impact assessment and review framework will also be incorporated in FERP.

VII. MONITORING AND REPORTING

44. The extent of monitoring activities, including their scope and periodicity, will be commensurate with the project's risks and impacts. The EA/IA is required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to submit periodic monitoring reports on their implementation performance. ADB will require the IEA/IA to:

- i) establish and maintain procedures to monitor the progress of implementation of EMPs;
- ii) verify the compliance with environmental measures and their progress toward intended outcomes;
- iii) document and disclose monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports;
- iv) follow up on these actions to ensure progress toward the desired outcomes,
- v) retain qualified and experienced external experts or qualified NGOs to verify monitoring information for projects with significant impacts and risks;
- vi) use independent advisory panels to monitor project implementation for highly complex and sensitive projects, and
- vii) submit periodic monitoring reports on safeguard measures as agreed with ADB.

ADB will carry out the following monitoring actions to supervise sub-projects implementation:

- i) conduct periodic site visits for projects with adverse environmental or social impacts;
- ii) conduct supervision missions with detailed review by ADB's safeguard specialists/officers or consultants for sub-projects with significant adverse social or environmental impacts;
- iii) review the periodic monitoring reports submitted by the EA/IA to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;
- iv) work with the EA/IA to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to reestablish compliance as appropriate; and
- v) prepare project completion reports that assess whether the objective and desired outcomes of the EMPs have been achieved, taking into account the baseline conditions and the results of monitoring.

ROADS & HIGHWAYS

Appendix 1

Rapid Environmental Assessment (REA) Checklist

Instructions:

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES), for endorsement by Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting is the project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Protected area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
B. Potential Environmental Impacts Will the Project cause...			
▪ encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?			
▪ encroachment on precious ecology (e.g. sensitive or protected areas)?			

ROADS & HIGHWAYS

Screening Questions	Yes	No	Remarks
▪ alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?			
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?			
▪ increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation?			
▪ noise and vibration due to blasting and other civil works?			
▪ dislocation or involuntary resettlement of people?			
▪ dislocation and compulsory resettlement of people living in right-of-way?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?			
▪ hazardous driving conditions where construction interferes with pre-existing roads?			
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?			
▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?			
▪ accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials?			
▪ increased noise and air pollution resulting from traffic volume?			
▪ increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?			
▪ social conflicts if workers from other regions or countries are hired?			

ROADS & HIGHWAYS

▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?			
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.			

Climate Change and Disaster Risk Questions The following questions are not for environmental categorization. They are included in this checklist to help identify potential climate and disaster risks.	Yes	No	REMARKS
• Is the Project area subject to hazards such as earthquakes, floods, landslides, tropical cyclone winds, storm surges, tsunami or volcanic eruptions and climate changes (see Appendix I)			
▪ Could changes in temperature, precipitation, or extreme events patterns over the Project lifespan affect technical or financial sustainability (eg., increased erosion or landslides could increase maintenance costs, permafrost melting or increased soil moisture content could affect sub0-grade).			
▪ Are there any demographic or socio-economic aspects of the Project area that are already vulnerable (eg., high incidence of marginalized populations, rural-urban migrants, illegal settlements, ethnic minorities, women or children)?			
▪ Could the Project potentially increase the climate or disaster vulnerability of the surrounding area (e.g., by encouraging settlement in areas that will be more affected by floods in the future, or encouraging settlement in earthquake zones)?			

ROADS & HIGHWAYS

Environments, Hazards and Climate Changes

Environment	Natural Hazards and Climate Change	Example Impact on Roads and Highways
Arid/Semi-arid and desert environment	Low erratic rainfall of up to 500 mm rainfall per annum with periodic droughts and high rainfall variability. Low vegetative cover. Resilient ecosystems & complex pastoral and systems, but medium certainty that 10–20% of drylands degraded; 10-30% projected decrease in water availability in next 40 years; projected increase in drought duration and severity under climate change. Increased mobilization of sand dunes and other soils as vegetation cover declines; likely overall decrease in agricultural productivity, with rain-fed agriculture yield reduced by 30% or more by 2020. Earthquakes and other geophysical hazards may also occur in these environments.	Reduced availability of water for compaction during construction, increased sand on carriageways reduce road safety, road alignment may need to be reviewed where, for example, agriculturally productive zones are shifting.
Humid and sub-humid plains, foothills and hill country	More than 500 mm precipitation/yr. Resilient ecosystems & complex human pastoral and cropping systems. 10-30% projected decrease in water availability in next 40 years; projected increase in droughts, heatwaves and floods; increased erosion of loess-mantled landscapes by wind and water; increased gully erosion; landslides likely on steeper slopes. Likely overall decrease in agricultural productivity & compromised food production from variability, with rain-fed agriculture yield reduced by 30% or more by 2020. Increased incidence of forest and agriculture-based insect infestations. Earthquakes and other geophysical hazards may also occur in these environments.	Increased landslides and mudflows disrupt road networks, Increased moisture content in the subsurface can result in increased penetration of water into the fill, which may also collapse, Reduced effectiveness of drainage which results in a reduction in the bearing capacity of the soils which become saturated
River valleys/deltas and estuaries and other low-lying coastal areas	River basins, deltas and estuaries in low-lying areas are vulnerable to riverine floods, storm surges associated with tropical cyclones/typhoons and sea level rise; natural (and human-induced) subsidence resulting from sediment compaction and ground water extraction; liquefaction of soft sediments as result of earthquake ground shaking. Tsunami possible/likely on some coasts. Lowland agri-business and subsistence farming in these regions at significant risk.	Same as above
Small islands	Small islands generally have land areas of less than 10,000km ² in area, though Papua New Guinea and Timor with much larger land areas are commonly included in lists of small island developing states. Low-lying islands are especially vulnerable to storm surge, tsunami and sea-level rise and, frequently, coastal erosion, with coral reefs threatened by ocean warming in some areas. Sea level rise is likely to threaten the limited ground water resources. High islands often experience high rainfall intensities, frequent landslides and tectonic environments in which landslides and earthquakes are not uncommon with (occasional) volcanic eruptions. Small islands may have low adaptive capacity and high adaptation costs relative to GDP.	Increased salinity increases corrosion of materials which can break-down, Road is eroded by increased wave action, Increased flooding from overtopping of sea-water over road or salt-water intrusion in to groundwater,

ROADS & HIGHWAYS

Environment	Natural Hazards and Climate Change	Example Impact on Roads and Highways
Mountain ecosystems	Accelerated glacial melting, rockfalls/landslides and glacial lake outburst floods, leading to increased debris flows, river bank erosion and floods and more extensive outwash plains and, possibly, more frequent wind erosion in intermontane valleys. Enhanced snow melt and fluctuating stream flows may produce seasonal floods and droughts. Melting of permafrost in some environments. Faunal and floral species migration. Earthquakes, landslides and other geophysical hazards may also occur in these environments.	Damage to infrastructure from landslides and mudflows, permafrost melting causes damage to roads, glacial lake outbursts wash out river-crossings.
Volcanic environments	Recently active volcanoes (erupted in last 10,000 years – see www.volcano.si.edu). Often fertile soils with intensive agriculture and landslides on steep slopes. Subject to earthquakes and volcanic eruptions including pyroclastic flows and mudflows/lahars and/or gas emissions and occasionally widespread ashfall.	Damage and loss of roads, insecurity for roadworks crew and maintenance

IRRIGATION

Rapid Environmental Assessment (REA) Checklist

Instructions:

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by the Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

SCREENING QUESTIONS	Yes	No	REMARKS
A. PROJECT SITING			
IS THE PROJECT AREA ADJACENT TO OR WITHIN ANY OF THE FOLLOWING ENVIRONMENTALLY SENSITIVE AREAS?			
▪ PROTECTED AREA	<input type="checkbox"/>	<input type="checkbox"/>	
▪ WETLAND	<input type="checkbox"/>	<input type="checkbox"/>	
▪ MANGROVE	<input type="checkbox"/>	<input type="checkbox"/>	
▪ ESTUARINE	<input type="checkbox"/>	<input type="checkbox"/>	
▪ BUFFER ZONE OF PROTECTED AREA	<input type="checkbox"/>	<input type="checkbox"/>	
▪ SPECIAL AREA FOR PROTECTING BIODIVERSITY	<input type="checkbox"/>	<input type="checkbox"/>	
B. POTENTIAL ENVIRONMENTAL IMPACTS			
WILL THE PROJECT CAUSE...			
▪ loss of precious ecological values (e.g. result of encroachment into forests/swamplands or historical/cultural buildings/areas, disruption of hydrology of natural waterways, regional flooding, and drainage hazards)?	<input type="checkbox"/>	<input type="checkbox"/>	

IRRIGATION

SCREENING QUESTIONS	Yes	No	REMARKS
▪ conflicts in water supply rights and related social conflicts?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ impediments to movements of people and animals?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ potential ecological problems due to increased soil erosion and siltation, leading to decreased stream capacity?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ Insufficient drainage leading to salinity intrusion?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ over pumping of groundwater, leading to salinization and ground subsidence?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ impairment of downstream water quality and therefore, impairment of downstream beneficial uses of water?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ dislocation or involuntary resettlement of people?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ potential social conflicts arising from land tenure and land use issues?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ soil erosion before compaction and lining of canals?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ noise from construction equipment?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ dust during construction?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ waterlogging and soil salinization due to inadequate drainage and farm management?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ leaching of soil nutrients and changes in soil characteristics due to excessive application of irrigation water?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ reduction of downstream water supply during peak seasons?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ soil pollution, polluted farm runoff and groundwater, and public health risks due to excessive application of fertilizers and pesticides?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ soil erosion (furrow, surface)?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ scouring of canals?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ clogging of canals by sediments?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ clogging of canals by weeds?	<input type="checkbox"/>	<input type="checkbox"/>	

SCREENING QUESTIONS	Yes	No	REMARKS
▪ seawater intrusion into downstream freshwater systems?	<input type="checkbox"/>	<input type="checkbox"/>	IRRIGATION

SCREENING QUESTIONS	Yes	No	REMARKS
▪ introduction of increase in incidence of waterborne or water related diseases?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ dangers to a safe and healthy working environment due to physical, chemical and biological hazards during project construction and operation?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ social conflicts if workers from other regions or countries are hired?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	<input type="checkbox"/>	<input type="checkbox"/>	
▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., irrigation dams) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	<input type="checkbox"/>	<input type="checkbox"/>	

Climate Change and Disaster Risk Questions The following questions are not for environmental categorization. They are included in this checklist to help identify potential climate and disaster risks.	Yes	No	Remarks
▪ Is the Project area subject to hazards such as earthquakes, floods, landslides, tropical cyclone winds, storm surges, tsunamis or volcanic eruptions and climate changes (see Appendix I)?			
▪ Could changes in precipitation, temperature, salinity, or extreme events over the Project lifespan affect its sustainability or cost?			
▪ Are there any demographic or socio-economic aspects of the Project area that are already vulnerable (e.g. high incidence of marginalized populations, rural-urban migrants, illegal settlements, ethnic minorities, women or children)?			

<ul style="list-style-type: none">▪ Could the Project potentially increase the climate or disaster vulnerability of the surrounding area (e.g., increasing traffic or housing in areas that will be more prone to flooding, by encouraging settlement in earthquake zones)?			
---	--	--	--

IRRIGATION

Environments, Hazards and Climate Changes

Environment	Natural Hazards and Climate Change	Example Impact on Irrigation Systems
Arid/Semi-arid & desert environments	Low erratic rainfall of up to 500 mm rainfall per annum with periodic droughts and high rainfall variability. Low vegetative cover. Resilient ecosystems & complex pastoral and systems, but medium certainty that 10–20% of drylands degraded; 10-30% projected decrease in water availability in next 40 years; projected increase in drought duration and severity under climate change. Increased mobilization of sand dunes and other soils as vegetation cover declines; likely overall decrease in agricultural productivity, with rain-fed agriculture yield reduced by 30% or more by 2020. Earthquakes and other geophysical hazards may also occur in these environments.	In cases where water availability may decrease due to reduced precipitation, increased water use may be unsustainable
Humid and sub-humid plains, foothills and hill country	More than 500 mm precipitation/yr. Resilient ecosystems & complex human pastoral and cropping systems. 10-30% projected decrease in water availability in next 40 years; projected increase in droughts, heatwaves and floods; increased erosion of loess-mantled landscapes by wind and water; increased gully erosion; landslides likely on steeper slopes. Likely overall decrease in agricultural productivity & compromised food production from variability, with rain-fed agriculture yield reduced by 30% or more by 2020. Increased incidence of forest and agriculture-based insect infestations. Earthquakes and other geophysical hazards may also occur in these environments.	In many cases, climate change is expected to result in more intense but less frequent rainfall events and longer dry seasons and water capture systems may not be designed to accommodate these changes.
River valleys/deltas and estuaries and other low-lying coastal areas	River basins, deltas and estuaries in low-lying areas are vulnerable to riverine floods, storm surges associated with tropical cyclones/typhoons and sea level rise; natural (and human-induced) subsidence resulting from sediment compaction and ground water extraction; liquefaction of soft sediments as result of earthquake ground shaking. Tsunami possible/likely on some coasts. Lowland agri-business and subsistence farming in these regions at significant risk.	As temperature increases, the spread of vector and water borne diseases may spread, standing water created by irrigation systems may promote their spread by creating habitats for their transmission.
Small islands	Small islands generally have land areas of less than 10,000km ² in area, though Papua New Guinea and Timor with much larger land areas are commonly included in lists of small island developing states. Low-lying islands are especially vulnerable to storm surge, tsunami and sea-level rise and, frequently, coastal erosion, with coral reefs threatened by ocean warming in some areas. Sea level rise is likely to threaten the limited ground water resources. High islands often experience high rainfall intensities, frequent landslides and tectonic environments in which landslides and earthquakes are not uncommon with (occasional) volcanic eruptions. Small islands may have low adaptive capacity and high adaptation costs relative to GDP.	Areas previously suitable for agriculture may become less so as sea-level rise causes salt water intrusion and soil salinity. Planned agricultural areas may no longer be viable and therefore irrigation systems that feed them.

IRRIGATION

Environment	Natural Hazards and Climate Change	Example Impact on Irrigation Systems
Mountain ecosystems	Accelerated glacial melting, rockfalls/landslides and glacial lake outburst floods, leading to increased debris flows, river bank erosion and floods and more extensive outwash plains and, possibly, more frequent wind erosion in intermontane valleys. Enhanced snow melt and fluctuating stream flows may produce seasonal floods and droughts. Melting of permafrost in some environments. Faunal and floral species migration. Earthquakes, landslides and other geophysical hazards may also occur in these environments.	Irrigation infrastructure may be damaged and blocked by glacial lake outbursts and mudflows. Water resources supplied by mountain systems may increase or diminish as rates of glacial melt change.
Volcanic environments	Recently active volcanoes (erupted in last 10,000 years – see www.volcano.si.edu). Often fertile soils with intensive agriculture and landslides on steep slopes. Subject to earthquakes and volcanic eruptions including pyroclastic flows and mudflows/lahars and/or gas emissions and occasionally widespread ashfall.	Irrigation infrastructure may be lost during volcanic eruptions.

Appendix 2

Outline of an Environmental Assessment Report

This outline is part of the Safeguard Requirements 1. An environmental assessment report is required for all environment category A and B projects. Its level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks. A typical EIA report contains the following major elements, and an IEE may have a narrower scope depending on the nature of the project. The substantive aspects of this outline will guide the preparation of environmental impact assessment reports, although not necessarily in the order shown.

A. Executive Summary

This section describes concisely the critical facts, significant findings, and recommended actions.

B. Policy, Legal, and Administrative Framework

This section discusses the national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies project-relevant international environmental agreements to which the country is a party.

C. Description of the Project

This section describes the proposed project; its major components; and its geographic, ecological, social, and temporal context, including any associated facility required by and for the project (for example, access roads, power plants, water supply, quarries and borrow pits, and spoil disposal). It normally includes drawings and maps showing the project's layout and components, the project site, and the project's area of influence.

D. Description of the Environment (Baseline Data)

This section describes relevant physical, biological, and socioeconomic conditions within the study area. It also looks at current and proposed development activities within the project's area of influence, including those not directly connected to the project. It indicates the accuracy, reliability, and sources of the data.

E. Anticipated Environmental Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

F. Analysis of Alternatives

This section examines alternatives to the proposed project site, technology, design, and operation - including the no project alternative - in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. It also states the basis for selecting the particular project design proposed and, justifies recommended emission levels and approaches to pollution prevention and abatement.

G. Information Disclosure, Consultation, and Participation

This section:

- (i) describes the process undertaken during project design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders;
- (ii) summarizes comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and
- (iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during project implementation.

H. Grievance Redress Mechanism

This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.

I. Environmental Management Plan

This section deals with the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental impacts (in that order of priority). It may include multiple management plans and actions. It includes the following key components (with the level of detail commensurate with the project's impacts and risks):

- (i) Mitigation:
 - (a) identifies and summarizes anticipated significant adverse environmental impacts and risks;
 - (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and,
 - (c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

(ii) Monitoring:

- (a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and
- (b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

(iii) Implementation arrangements:

- (a) specifies the implementation schedule showing phasing and coordination with overall project implementation;
- (b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and
- (c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

- (iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

J. Conclusion and Recommendation

This section provides the conclusions drawn from the assessment and provides recommendations.

Appendix 3

Major Elements of an Environmental Audit Report

- i) Executive Summary;
- ii) Facilities description, including both past and current activities;
- iii) Summary of national, local, and any other applicable environmental laws, regulations, and standards;
- iv) Audit and site investigation procedure;
- v) Findings and areas of concern; and
- vi) Corrective action plan that provides the appropriate corrective actions for each area of concern, including costs and schedule.

Gender Action Framework (GAF)
Pakistan: Flood Emergency Reconstruction Project

Objective	Activity	Indicator	Responsibility
Output 1: Road network system (including bridges) repaired and rehabilitated			
1. Women participate in and benefit from the reconstruction process.	1.2 Develop action plan for incorporating livelihood and employment option for women in infrastructure project sites.	<ul style="list-style-type: none"> Affirmative action for women employment (upto 10% of work force) formulated and reinforced during reconstruction process – included in bidding and contract documents and monitoring sheets in 15% of sub-project (those, which will also have separate GAP) Upto 10% of work force generated by civil works done by women in 15% of sub-projects independently monitored. Dedicated grievance redress system for women with an outreach mechanism. 	Respective provincial IA and EA
	1.2 Ensure compensation of eligible women landowners	<ul style="list-style-type: none"> Women provided with compensation for their land and assets during resettlement. 	Respective provincial IA through Project Management Consultants
	1.2.3 Establish grievance system catering to women's needs	<ul style="list-style-type: none"> Providing women-friendly platform through the PMC at district level connected to the Ombudsman mechanism Sex-disaggregated data collected on grievances and published quarterly 	Respective provincial IA through Project Management Consultants
Output 2: Provincial irrigation facilities reconstructed			
2. Women's needs for irrigation water use are taking into consideration during reconstruction.	2.1 Design irrigation canals with livestock watering pool and maintenance access	<ul style="list-style-type: none"> Women water-related demands and priorities addressed, irrigation systems developed which provide women access to irrigation water for household use (time for fetching water reduced by 20% in selected project communities). 	Respective provincial IA and EA
Output 3: Capacity building TA			
3. Strengthening the commitment and capacity of IAs and EAs Management for gender equality	3.1 Enhancing capacity of line departments in undertaking gender-sensitive measures for irrigation and civil and works department	<ul style="list-style-type: none"> Capacity of irrigation and civil and works departments enhanced to develop gender-sensitive projects. 	Gender Specialists of the respective IA

	3.2 Enhancing the capacity of actors involved in reconstruction to assess gender needs and concerns, and recommend related improvement in reconstruction process to address these concerns	<ul style="list-style-type: none"> Gender Checklists for each sector published and distributed. Gender analysis of 15% of subprojects carried out (selected with the following criteria: 1. geographical location, number of beneficiaries, opportunities for women employment, smaller infrastructure sub-projects) and shared with the stakeholders Monitoring reports showing action taken on recommended actions Training in gender-sensitive development planning at stakeholder (contractors, PMUs) levels carried out 	Respective provincial IAs through PMC
	3.3 Gender mainstream reconstruction process	<ul style="list-style-type: none"> Gender Specialist recruited under TA Gender considerations with clearly defined output and outcome indicators inform reconstruction process (GAP for 15% of subprojects) Budget allocated for gender-relevant initiatives in priority sectors Gender analysis conducted which informs women's livelihood needs assessment One pilot project for women livelihood designed and financing secured (50000 USD seed financing from RETA 7563) 	Respective provincial IAs and Federal EAs.