COMBINED PROJECT INFORMATION DOCUMENTS / INTEGRATED SAFEGUARDS DATA SHEET (PID/ISDS)
CONCEPT STAGE

Report No.: PIDISDSC14926

Date Prepared/Updated: 22-Sep-2015

I. BASIC INFORMATION

A. Basic Project Data

Country:	Pakistan	**Project ID:**	P155350
		Parent Project ID (if any):	
Project Name:	Disaster and Climate Resilience Enhancement Program (P155350)		
Region:	SOUTH ASIA		
Estimated Appraisal Date:	18-Feb-2016	**Estimated Board Date:**	26-May-2016
Practice Area (Lead):	Social, Urban, Rural and Resilience Global Practice	**Lending Instrument:**	Investment Project Financing
Sector(s):	Flood protection (70%), Public administration- Water, sanitation and flood protection (30%)		
Theme(s):	Natural disaster management (100%)		
Borrower(s):	Economic Affairs Division		
Implementing Agency:	Sindh Irriigation Department, Provincial Disaster Management Authority, Sindh		

Financing (in USD Million)

Financing Source	Amount
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	250.00
Total Project Cost	250.00

Environmental Category:	A - Full Assessment
Concept Review Decision:	Track II - The review did authorize the preparation to continue
Is this a Repeater project?	No
Other Decision (as needed):	

B. Introduction and Context

Country Context

1. Pakistan is exposed to a number of adverse natural events and has experienced a wide range of disasters over the past 40 years, including floods, earthquakes, droughts, cyclones and tsunamis. Exposure and vulnerability to hazards is further exacerbated by a rapid population growth, growing urbanization, environmental degradation and shifting climatic patterns that can result in the occurrence of increasingly severe natural disasters. Over the past decade, damages and losses resulting from natural disasters in Pakistan have exceeded USD 18 billion; as the population and asset base of Pakistan increases, so does its economic exposure to natural disasters.

2. Pakistan faces a major financing challenge arising from natural catastrophes, with flooding causing an estimated annual economic impact of between 3 and 4 percent of the Federal Budget. On average, approximately 3 million people are affected by natural catastrophes each year in Pakistan, which equates to approximately 1.6 percent of the total population. The annual economic impact of flooding is estimated between USD 1.2 billion and USD 1.8 billion, equivalent to between 0.5 percent and 0.8 percent of national GDP; however simulations show that a major flood event (occurring, on average, once every 100 years) could cause losses in excess of USD 15.5 billion, which equates to around 7 percent of national GDP, equivalent to almost 40 percent of the Federal Budget.

3. The geographic location and climatic conditions of the Province of Sindh render it vulnerable to various natural disaster events. These include floods (urban, riverine and flash floods), cyclones, earthquakes, droughts, wind storms, tsunamis and sea intrusion. In addition, the geography, topography, nature of economy, rapid urbanization and high population levels exacerbate Sindh’s vulnerability to natural disasters.

4. Sindh experienced major floods in 1992, 1994, 1995, 2003, 2005, 2007, 2010, 2011, 2012 and 2013. Besides riverine floods, primarily involving the River Indus, torrential flash floods have also severely impacted parts of Sindh. Floods in 2010 and 2011 were amongst the most devastating in the history of the region. Floods in 2010 displaced 7.2 million people and affected 11,992 villages. The impact on the economy of Sindh was estimated at PKR. 372 billion (USD 4.4 billion), with agriculture, livestock and housing contributing to major losses. The floods in 2011 inundated 38,347 villages, displacing 9.3 million people and human loss stood at 497 lives. The 2011 flood-affected districts constitute 86 percent of geographical area and house 54% of the total population of the province.

5.Besides floods, Sindh province faces drought in northern and eastern region on recurring basis. The drought from 1998 – 2002 affected 1.4 million people, 5.6 million cattle head and 12.5 million acres cropped area, triggering spread of malnutrition-based diseases in the population and food scarcity in the province due to poor overall crop output. Also, Sindh province faces the risk of cyclone and wind storms due to vast coastal line. Cyclone Yemin in 2007 affected three other districts along the coastline of the province, affecting 0.4 million people and 40,204 cattle heads, and damaged 34,418 houses and 114,825 acres cropped area. Sindh also lies on a major seismic fault line and faces a real threat of high intensity earthquakes. In particular, Karachi, the most populous city of the country, is exposed to major seismic activity due to a triple junction beneath the Arabian Sea, about 20 to 30 kilometers from the city, where the boundaries of Arabian, Indian, Eurasian plates meet. Sindh has experienced several earthquakes in recent past, including a 7.3 magnitude earthquake originating in Balochistan in January 2011, a 5.6 magnitude earthquake in December 2013 and a 5.0 magnitude earthquake near Nawabshah town in May 2014.

Sectoral and Institutional Context

6.Since the devastating impact of the 2005 earthquake, Pakistan has worked to change how the country addresses natural disasters - from an ex-post disaster response perspective to an ex-ante risk management approach. The promulgation of the National Disaster Management Ordinance (NDMO) of 2006, which established the National Disaster Risk Management Framework (NDRMF), reflects this more pro-active approach towards disaster risk management (DRM).
7.The National Disaster Management (NDM) Act was passed in 2010 and builds on the 2006 NDMO. This Act established the National Disaster Management Authority (NDMA) as the lead agency at the federal level to coordinate disaster response. A National Disaster Management Commission (NDMC), chaired by the Prime Minister, was created by the Act to serve as the main policy-making institution for DRM. Passage of the 18th Amendment devolved some powers to the provinces, including greater responsibility to prepare for and respond to disaster.
8.The NDM Act of 2010 established not only a national level disaster management authority, but also, mandated the replication of the NDMA structure at more decentralized levels. The Chief Minister chairs a Provincial Disaster Management Commission (PDMC) and serves as the executive arm of the PDMC in most provinces and regions. The NDM Act of 2010 also provides for the establishment of District Disaster Management Authorities (DDMAs), which have been implemented in a small number of districts.
9.Five years after its enactment, the NDM Act 2010 is not yet fully implemented, and rules of business are yet to be formulated. At the Federal level, while the necessary legal, institutional and policy measures have been taken by the Government of Pakistan for DRM, there are a number of entities working on DRM with overlapping mandates in addition to NDMA. These include the Earthquake Reconstruction & Rehabilitation Authority (ERRA), the Emergency Relief Cell (ERC), and the Federal Flood Commission (FFC), amongst others. At the provincial level, the multiplicity of institutions is also present, which include, PDMAs, the Provincial Irrigation Departments (PIDs), and the Civil Defence and Rescue Services. PDMAs also have differing capacities across provinces and administrative regions; similarly, DDMAs have only been established in selected districts and their operational capacity varies significantly. There is a need to advance the implementation of the NDM Act 2010, through greater clarity in functional mandates, strengthening capacities of disaster management institutions, and operationalization of disaster management funds at the federal, provincial and district levels.

Relationship to CAS/CPS/CPF

10. The project is consistent with the Country Partnership Strategy (CPS) 2015-19 for the Islamic Republic of Pakistan, which is committed to increasing resilience to disasters in targeted regions within the country. The CPS seeks to increase the number of provinces with disaster risk management plans, improved management, and early warning systems.
11. The project also supports the CPS Cross-cutting theme of climate change. The third cross-cutting theme - climate change adaptation and mitigation in public and private sectors - is addressed in that climate adaptation and disaster resilience are core themes in reducing vulnerability and improving preparedness towards disaster and climate related emergencies. In addition, the second theme - deepening engagement at the province level, while further clarifying the roles between provinces and the local governments – is being addressed with the support to the Provincial entities of Punjab and relevant disaster management entity for the State and their links in terms of disaster resilience at the district level.

C. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

16. The project development objective is to strengthen systems for managing disaster risk and

to improve resilience of people and economic assets to floods and droughts in Sindh.

Key Results (From PCN)

Development Objective(s) (From PCN)
13. Program Results: The key results contributing to the achievement of the overarching program development objective include: a) Number of provinces with strengthened DRM systems; b) Number of people and land area better protected from selected disasters; c) Improved government capacity to manage climate risks.
14. Project Results: Progress towards achieving the development objectives of the Project will be measured through the following key performance indicators: (a) Improved institutional capacity for disaster risk management; (b) Number of people at risk receiving early warning notifications for disasters; (c) number of people better protected from floods and droughts; and (d) land area protected from floods.

D. Concept Description

15. In response to the government's priority, the Bank is designing the Disaster and Climate Resilience Enhancement Program (DACREP). The proposed program is being developed under OP/BP 10.00 which enables the World Bank to support a time series of independent investment operations for a single or multiple sub-national borrowers using a Series of Projects (SOP) approach. The envisaged series of independent projects under DACREP will share a common design template to address issues common to all participating provincial/ regional governments and DRM entities. The value added of adopting the programmatic approach under SOP is to holistically address long-term DRM issues and resilience needs across the country, as required by the Government of Pakistan, outlined in the National Disaster Management Plan (NDMP). The program would be anchored at the national level for overall coordination and monitoring implementation. A dedicated Program Steering Committee (PSC), comprising senior representatives from concerned federal and provincial departments would be established as the apex forum. The PSC secretariat would be housed at the NDMA. As the secretariat, the NDMA will facilitate program coordination, monitoring of outcomes, and greater cohesion between interventions among individual projects. The engagement under the proposed program would have a duration of 12 – 15 years, and would include investments at the federal and provincial / territory levels.

16. The Government of Pakistan has requested the Bank to provide support towards improving resilience to natural disasters in Sindh. The proposed operation for Sindh will be prepared as the first project under the programmatic engagement. Disaster and Climate Resilience Enhancement Program Phase I (DACREP-I) for Sindh will focus on improving systems at the provincial government and key agencies for managing disaster risk. In addition, the Project will further contribute towards enhancing resilience to hydro-meteorological disasters including floods and drought through physical infrastructure investments. The dialogue with Government of Sindh has established floods and droughts as the highest priority areas owing to high frequency and impact. The dialogue has further identified critical needs in these areas, along with an estimate of resources needed to address these priorities amounting to USD 250 million. This "needs estimate" provides the indicative resource envelope for DACREP-I.

DACREP-I will be implemented in 5 years and have the following components:

Component 1: Strengthening Institutions and Systems for Disaster Risk Management

17. The Component will focus on two key institutions in terms of strengthening operational systems and capacities, including the Provincial Disaster Management Agency (PDMA) Sindh and the Sindh Irrigation Department.

18.Support to PDMA Sindh: Systems and response capabilities would be strengthened through:

- Enhancement of operational facilities such as Emergency Operations Centers (EOCs) at provincial and district levels
- Integrating DRM planning and emergency response at the Provincial and district level (emergency response agencies, fire services personnel, and District governments)
- Enhancing rescue and response facilities in the Province
- Generation of risk and exposure information through an overall risk assessment for the province and detailed assessments for identified hotspots
- Development of Disaster Management Information System (DMIS) as a repository of hazard and risk information
- Increasing the capacity of disaster management authorities to disseminate early warning information such as flood forecasts and evacuation instructions as well as training communities / building awareness
- Support policy review and recommend improvements to existing building codes and its enforcement

19.Support to Sindh Irrigation Department: This subcomponent would support the improvement and upgrading modeling facilities at the Irrigation Research Institute, river morphology studies, floodplain mapping, and ground water assessment studies in drought prone areas. Risk data generated through various studies under this sub-component would form critical inputs for improving the decision support system linked to early warnings.

20. In addition to the above, The Project would also support the Government of Sindh towards enhancing preparedness for post-disaster recovery (planning, coordination, procurement, financing, etc.) under Component 1. Similarly, the Project will extend support to relevant provincial departments for using disaster management information for influencing decisions about development planning and budgeting.

Component 2: Structural Investments

21. Flood Protection Works: The component will support structural investments including infrastructure up-gradation and new works to increase resilience to flooding events in Sindh. This will help plug gaps in existing lines of defense through upgrading of dykes / bunds to protect communities and economically productive areas along the Indus River, as well as river training works to ensure preservation and continued operation of existing flood protection works at key sites. The Sindh Irrigation Department has identified a list of high risk sites and corresponding flood mitigation investments. The Component will focus on these high risk sites to facilitate clustering of investments and maximizing impact.

22. Construction of small dams to address drought risks: The project will support physical investments for rainwater harvesting through the construction of small dams in the Kohistan and Nangarparkar regions that will contribute significantly to the provision of water to communities during dry periods and the recharging of underground aquifers in adjacent drought prone areas.

The Sindh Irrigation Department is sufficiently advanced with preparatory activities, and has already prepared feasibility studies for most of the prospective physical investments under consideration.

Component 3: Fiscal Resilience

23. The fiscal resilience component would seek to inform the government on strengthening its institutional and financial response capacity in the aftermath of a disaster and reduce the economic and fiscal burdens of such events. This would involve a Fiscal Disaster Risk Assessment (FDRA) for Sindh which would support the Government of Sindh to develop a disaster risk financing strategy. The strategy will formalize objectives and scope, evaluate various instruments to finance contingent liability to natural disasters, and recommend implementation of instruments.

Component 4: Technical Assistance for Studies and Support to Project Implementation

24. This component would support the Government in implementing the Project and would include: support for the operation of the Project Implementation Units (PIUs) at the implementing agencies, and financing of overall project management, as well as technical assistance in such areas as detailed design / feasibility, contract administration and construction supervision, procurement, financial management, as well as management of social and environmental issues.

Component 5: Contingent Emergency Response Component

25. Following an adverse natural event that causes a major natural disaster, the government may request the Bank to reallocate project funds to support response and reconstruction. This component would allow the government to request the Bank to reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available for such an emergency.

II. SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

26. The Province of Sindh is the third largest province of Pakistan in terms of land mass, and is bounded by the Thar Desert to the east, the Kirthar Mountains to the west, Punjab province in the north and the Arabian Sea in the south. In the center is a fertile plain around the Indus River.
27. Sindh consists of the Lower Indus Plain, which is very flat, generally sloping to the south with an average gradient of about 95 mm per kilometer. A large part of Sindh lies in the deltaic plain of the Lower Indus Valley. Most of this region consists of plains overlain by alluvium, trenched with river channels in some places and overridden by raised terraces in others. Except for a small hilly tract (Nagarparkar), in the southeast corner of the Tharparkar District, western Sindh is the only region which is mountainous and includes the hill ranges of Kirthar, Pab, Laki, and Kohistan. There is little vegetation on these ranges due to scanty rainfall.
28. The total cultivated area in Sindh is 5.88 million hectares and the net area sown is 2.39 million hectares. Agriculture, followed by forestry, is the main land use in most parts of Sindh. Although more than 50 percent of the total geographical area of the Province is cultivable, only 26 percent of it is actually located in the central plain.

29. Sindh is entirely dependent on the River Indus for its survival and development. About 95 percent of the farmland in Sindh obtains its water from the irrigation system, while the rest is cultivated with the help of tube wells. Rainfall is only in the range of 100 to 200 mm per annum, while the evaporation rate is about 1,000 to 2,000 mm, depending on climatic conditions. Thus the whole of Sindh is arid, with the River Indus being the primary freshwater source that gives life to the province. With population growth, the average amount of renewable freshwater available to each person has been declining.

30. Being the lowest riparian, Sindh experiences recurring floods and droughts. Major floods received in the recent past were in 1992, 1994, 1995, 2003, 2005, 2007, 2010, 2011, 2012 and 2013. Besides riverine floods, primarily involving the River Indus, torrential flash floods have also severely impacted parts of Sindh. Floods in 2010 and 2011 were amongst the most devastating in the history of the region. Besides floods, Sindh province faced drought 1998 – 2002 affected 1.4 million people, 5.6 million cattle head and 12.5 million acres cropped area.

B. Borrower's Institutional Capacity for Safeguard Policies

33. The Sindh Irrigation Department through Sindh Irrigation and Drainage Authority (SIDA) has been implementing WB-financed projects, Sindh Water Sector Improvement Project being a recent one, in addition to the recently approved Guddu Barrage Rehabilitation Project. Hence the Department is broadly aware of the safeguard requirements and has some experience in implementing the safeguard plans (eg, environmental and social management plans). There is nonetheless room and need for additional capacity building.

C. Environmental and Social Safeguards Specialists on the Team

Salma Omar (GSURR)

D. POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The structural investments under the Component 2 will include construction of new and rehabilitation of existing flood protection and river training structures. These activities are likely to cause negative environmental and social impacts of varying degree of intensity, significance, spatial as well as temporal extent, reversibility, and importance. Category of the project in accordance with the OP 4.01 is likely to be A based upon the safeguard screening. The task team is in the process of f
Natural Habitats OP/BP 4.04	TBD	Some interventions are likely to be carried out within or near important habitats such as the Indus River stretch between Guddu and Sukkur barrages – area known for the presence of Indus Dolphin.
Forests OP/BP 4.36	TBD	Some interventions may be located within or near riverine forests.
Pest Management OP 4.09	No	The interventions are not likely to cause an increase in the use of agro-chemicals.
Physical Cultural Resources	TBD	The proposed interventions particularly the new

OP/BP 4.11		structures may impact the known PCRs
Indigenous Peoples OP/BP 4.10	TBD	Although there are no known indigenous people as defined in the OP in Sindh, the SIA would confirm the presence or absence of IPs in the project area.
Involuntary Resettlement OP/ BP 4.12	Yes	Some of the proposed interventions may cause involuntary resettlement resulting in relocation or adverse impact on livelihood and/or sources of livelihood.
Safety of Dams OP/BP 4.37	TBD	Some of the proposed interventions may fall under the definition of dams as specified in the OP. Dam safety specialists would be consulted as part of due diligence in order to determine the applicability of the OP.
Projects on International Waterways OP/BP 7.50	Yes	Some of the proposed interventions will be carried out in/along Indus River which is an international waterway as defined in the OP.
Projects in Disputed Areas OP/ BP 7.60	No	No disputed areas exist in the Sindh Province.

E. Safeguard Preparation Plan

1. Tentative target date for preparing the PAD Stage ISDS

31-Dec-2015

2. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the PAD-stage ISDS.

Initiation of safeguard studies: 15 August 2015; finalization of safeguard studies: 1 December 2015.

III. Contact point

World Bank

Contact: Haris Khan
Title: Senior Disaster Risk Managemen

Borrower/Client/Recipient

Name: Economic Affairs Division
Contact: Mr. Muhammad Saleem Sethi
Title: Secretary
Email: secretary@ead.gov.pk

Implementing Agencies

Name: Sindh Irriigation Department
Contact: Syed Zaheer Haider Shah
Title: Secretary
Email: ajmemon119@yahoo.com

Name: Provincial Disaster Management Authority, Sindh
Contact: Commander (R) Syed Salman Shah
Title: Director General

Email: dg@pdma.gos.pk

IV. For more information contact:

The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500
Web: http://www.worldbank.org/infoshop

V. Approval

Task Team Leader(s):	Name: Haris Khan	
Approved By		
Safeguards Advisor:	Name: Maged Mahmoud Hamed (SA)	Date: 22-Sep-2015
Practice Manager/ Manager:	Name: Bernice K. Van Bronkhorst (PMGR)	Date: 22-Sep-2015
Country Director:	Name: Rachid Benmessaoud (CD)	Date: 29-Sep-2015

1 Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

Public Disclosure Copy