

**PROJECT INFORMATION DOCUMENT (PID)**  
**APPRAISAL STAGE**

Report No.: PIDA23446

<b>Project Name</b>	Disaster and Climate Resilience Improvement Program (P154036)
<b>Region</b>	SOUTH ASIA
<b>Country</b>	Pakistan
<b>Sector(s)</b>	Flood protection (70%), Public administration- Water, sanitation and flood protection (30%)
<b>Theme(s)</b>	Natural disaster management (100%)
<b>Lending Instrument</b>	Investment Project Financing
<b>Project ID</b>	P154036
<b>Borrower(s)</b>	Economics Affairs Division, Government of Pakistan
<b>Implementing Agency</b>	Pakistan Meteorological Department, Provincial Disaster Management Authority (Punjab), Punjab Irrigation Department, Apex Planning and Development Agency for Northern Districts
<b>Environmental Category</b>	B-Partial Assessment
<b>Date PID Prepared/Updated</b>	22-Apr-2015
<b>Estimated Date of Board Approval</b>	22-May-2015
<b>Appraisal Review Decision (from Decision Note)</b>	The team was authorized to proceed with Appraisal
<b>Other Decision</b>	

## I. Project Context

### Country Context

Pakistan is vulnerable 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. These hazards are due to an active floodplain fed by snow and glacial melt from three mountain ranges – Himalayas, Karakoram and Hindu Kush, its location on a seismically active geological plate, a predominantly semi-arid landmass and a coastline frequented by cyclonic events. 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.

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. According to an analysis of historical

natural disaster data, since 1973 approximately 77 percent of all the people affected by natural disasters were impacted by flooding events. 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.

Punjab's population, geographic location and climatic conditions make it one of the most exposed provinces to natural disasters. Over the past 30 years, 66.6% of all people affected by natural disasters in Pakistan were resident in Punjab. Floods remain the dominant hazard in Punjab, despite a history of other disasters such as earthquakes, tornadoes, and droughts in the province. Floods in 1992, 1994, 1997, 2010, 2012, 2013 and 2014 have led to the loss of precious human lives and caused significant damages to public and private property. Floods in 2014 resulted in 286 deaths, with approximately 100,000 houses damaged and 2.47 million people directly affected due to inundation and / or displacement. These disaster events have continuously led to the disruption of economic activity and service delivery, in addition to burdening the public exchequer to provide for relief, recovery and rehabilitation. The low-lying areas close to the banks of the Indus River and its tributaries experience regular flooding on an almost yearly basis during annual monsoon season which takes place from July to September. Snowmelt from the Karakoram, Hindu Kush and Himalayan mountains further feeds the flood-plains during this period, especially the catchment areas of Indus River. As a result, several districts in the north and center of the province have become prone to floods. Further, flash floods and hill torrents are also a regular feature in southern Punjab as is the risk of urban flooding in major cities due to various human factors such as rapid urbanization, unplanned development and settlements, encroachments on waterways and solid waste dumping.

Several northern districts are at risk from flooding, landslides, earthquakes and avalanches because of its mountainous terrain, geographic location and climatic conditions. Floods in 2014 resulted in 56 deaths, with approximately 30,000 houses damaged and 60,000 people affected in the eight (8) districts of Neelum, Hattian, Bagh, Poonch, Haveli, Kotli, Bhimber and Muzaffarabad (the "Northern Districts"). Extreme weather events have had an adverse impact on agriculture productivity and the average per capita income of the rural household. Landslides, mudslides, and rockslides throughout the Northern Districts cause frequent injuries, deaths, road closures, and can disrupt economic activities for months. Landslides have been on the increase in recent years with the impact of deforestation and flooding and are particularly common in the most mountainous districts. These Northern Districts lies over an active seismic zone with the whole region at high risk. The Northern Districts are still also recovering from extensive infrastructural damage incurred during the 2005 earthquake in which 73,338 people died, 128,304 people were injured, 600,000 houses were destroyed, and 3.5 million people displaced. The earthquake caused extensive damage to roads, water and sanitation facilities, power, and telecommunication infrastructure and other services.

#### Situations of Urgent Need of Assistance or Capacity Constraints

Floods hit parts of Pakistan in early September 2014, including Punjab and the Northern Districts. The disaster caused 367 deaths, mostly in Punjab province, in addition to damages to houses, agriculture, transport, irrigation and communications infrastructure. It is estimated by the National Disaster Management Authority (NDMA) that the floods affected over 2.5 million people in both rural and urban areas. The Federal and Provincial Governments were proactive in relief operations in the immediate aftermath of the floods. The relief phase has concluded and the response is now gradually moving from early recovery to medium and longer-term planning for recovery, reconstruction and increasing resilience.

#### **Sectoral and institutional Context**

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).

The National Disaster Management (NDM) Act was approved 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.

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.

Five years after its enactment, the NDM Act 2010 is not yet fully implemented, and details on how to operationalize it are still to be defined. 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.

#### Higher Level Objectives to which the Project Contributes

Building disaster and climate resilience is essential to supporting the World Bank's twin goals of ending extreme poverty and promoting shared prosperity. Disaster events can undermine hard-earned development gains, potentially trapping vulnerable groups into poverty. Therefore, activities contributing to resilience are directly linked to sustained development and allows the poorest – the most affected by such disasters – to escape cycles of poverty.

The project is consistent with the Country Partnership Strategy (CPS) 2015-19 for the Islamic Republic of Pakistan, which is committed to supporting and further improving Pakistan's DRM capacity as an outcome. This effort is highlighted through Outcome Indicator 3.3 "Increased Resilience to Disasters in Targeted Regions" under Result Area 3 "Inclusion". The CPS seeks to increase the number of provinces with disaster risk management plans, improved management, and early warning systems. This project contributes to this objective: it is building on the engagements at the federal and provincial levels to enhance disaster and climate resilience through increasing technical capacity of Government entities and restoring key flood protection infrastructure that would reduce the

impact of future hazards.

## **II. Project Development Objective(s)**

The project aims to support restoration of resilient flood protection infrastructure and strengthening government capacity to manage disasters and climate variability.

## **III. Project Description**

### **Component Name**

Component 1: Restoring flood protection infrastructure and upgrading flood management systems

### **Comments (optional)**

Component 1 aims to enhance physical resilience through the restoration, rehabilitation and improvement of critical flood protection infrastructure.

Subcomponent 1.1. Flood Protection Works (USD 80 million): This subcomponent will finance the restoration of flood protection infrastructure damaged during 2014 flood in Punjab and the Northern Districts. These investments will include:

- a) Restoration of flood embankments to resilient standards
- b) Rehabilitation of other infrastructure such as spurs and river channelization works

### **Component Name**

Component 2: Upgrading Climate Infrastructure

### **Comments (optional)**

Component 2 aims to enhance climate resilience by upgrading the national hydro-meteorological observation network and associated flood early warning systems (FEWS). The project will support improvement of hydro-meteorological information services through upgrading radar equipment, strengthening flood forecasting capability and early warning systems, and improving dissemination of hydro-meteorological information. Further, the weather forecasting system will be upgraded beyond current capabilities, to support 24 hours-per-day, 365-days-per-year operations, with forecast lead-times of 7-days, including forecast verification to assess forecast reliability. The aging radars will be replaced and upgraded while gaps in radar coverage will also be addressed through the project.

### **Component Name**

Component 3: Managing Disasters

### **Comments (optional)**

Component 3 aims to strengthen the government's capacity to better manage disasters. This component would finance risk identification, institutional strengthening for improved management of disasters and enhancing fiscal resilience.

### **Component Name**

Component 4: Project Management

### **Comments (optional)**

The project will be implemented through mandated government departments including Pakistan Meteorological Department, Punjab Irrigation Department, Punjab Disaster Management Authority, and the apex planning and development agency for the Northern Districts. This component will support engagement of additional resources at Project Implementation Units within these

departments.

**Component Name**

Component 5: Contingent Emergency Response

**Comments (optional)**

Following an adverse natural event that causes a major natural disaster, the government may request the Bank to re-allocate project funds to support response and reconstruction. This component would draw resources from the unallocated expenditure category and 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 as a result of the emergency.

**IV. Financing (in USD Million)**

Total Project Cost:	150.00	Total Bank Financing:	150.00
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			150.00
Total			150.00

**V. Implementation**

The activities and investments under the Project will be implemented at: a) Federal Level; b) Province of Punjab; and, c) Northern Districts. While Components 1 and 3 will be implemented in Punjab and the Northern Districts only, the bulk of activities under Component 2 need to be implemented at the Federal Level.

The project envisages the use of existing government structures for implementation. Restoration activities in Punjab would be led by the Punjab Irrigation Department (PID), while DRM capacity building activities would be undertaken by the Provincial Disaster Management Authority (PDMA). At the Federal level, the Pakistan Meteorological Department (PMD) would lead implementation of the hydro-meteorology component. These departments would dedicate resources to Project Implementation Units (PIUs) established at these departments. Further, a dedicated PIU North has already been established at the apex planning and development agency for the Northern Districts. The departments through their respective PIUs will have responsibility for project implementation including, but not limited to, reporting, monitoring and evaluation, social and environmental management, procurement, financial management, audit and disbursements, as well as coordination with the line agencies. The PIUs will be adequately resourced with skillsets and competencies required for project implementation and monitoring. The PIUs would be created within one month of project effectiveness.

**VI. Safeguard Policies (including public consultation)**

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	<b>X</b>	
Natural Habitats OP/BP 4.04		<b>X</b>

Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X
Involuntary Resettlement OP/BP 4.12	X	
Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50	X	

**Comments (optional)**

**VII. Contact point**

**World Bank**

Contact: Haris Khan  
Title: Senior Disaster Risk Management Specialist  
Tel: 5722+144  
Email: hkhan1@worldbank.org

**Borrower/Client/Recipient**

Name: Economics Affairs Division, Government of Pakistan  
Contact: Mr. Muhammad Saleem Sethi  
Title: Secretary  
Tel: 92519210629  
Email: secretary@ead.gov.pk

**Implementing Agencies**

Name: Pakistan Meteorological Department  
Contact: Mr. Iftikhar Ahmed Mir  
Title: Director General  
Tel: 00519250367  
Email: dgpakmet@gmail.com

Name: Provincial Disaster Management Authority (Punjab)  
Contact: Mr. Jawad Akram  
Title: Director General

Tel: 00924299203301-2  
Email: dgpdmalahore@gmail.com

Name: Punjab Irrigation Department  
Contact: Capt. (Rtd.) Saif Anjum  
Title: Secretary  
Tel: 004299212117  
Email: sec\_irr@punjab.net.pk

Name: Apex Planning and Development Agency for Northern Districts  
Contact: Mr. Mansoor Qadir Dar  
Title: Secretary  
Tel: 00925822921992  
Email: mansoordar@gmail.com

**VIII. 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>