



**Note to Task Teams:** The following sections are system generated and can only be edited online in the Portal.

# Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 25-Sep-2017 | Report No: PIDISDSC22287



**BASIC INFORMATION**

**A. Basic Project Data**

Country Pakistan	Project ID P163461	Parent Project ID (if any)	Project Name Khyber Pakhtunkhwa Hydropower Development Project (P163461)
Region SOUTH ASIA	Estimated Appraisal Date Nov 30, 2018	Estimated Board Date Apr 30, 2019	Practice Area (Lead) Energy & Extractives
Financing Instrument Investment Project Financing	Borrower(s) The Islamic Republic of Pakistan	Implementing Agency Pakhtunkhwa Energy Development Organization	

**Proposed Development Objective(s)**

Increase installed hydropower capacity and build institutional capacity for further hydropower development in Khyber Pakhtunkhwa.

**Financing (in USD Million)**

Financing Source	Amount
International Development Association (IDA)	200.00
Local Govts. (Prov., District, City) of Borrowing Country	129.00
<b>Total Project Cost</b>	<b>659.00</b>

Environmental Assessment Category A-Full Assessment	Concept Review Decision Track II-The review did authorize the preparation to continue
--	--

**Note to Task Teams:** End of system generated content, document is editable from here.

Other Decision (as needed)



## **B. Introduction and Context**

### Country Context

Pakistan's economic performance is improving – real GDP growth posted an increase of 0.7 percentage point to 4.7 percent in fiscal year 2015-2016 (FY16) from the previous year. The threat of a balance of payments crisis, severe few years ago, has receded. Pakistan's fiscal balance is improving. The fiscal deficit of the consolidated government during first half of FY16 stood at 1.7 percent of GDP – the smallest half year deficit in the last three years. Inflation remained low at 2.08 percent on average during the first nine months of FY16, helped by lower energy prices. The IMF's Extended Fund Facility (EFF) program was completed in September 2016 with energy reforms as one of the main areas covered under the program. The economic outlook is for moderately higher growth, nevertheless, the economy is still vulnerable to shortages of energy, natural disasters, large increase in oil prices and to lower than expected inflows of remittances, foreign direct investment (FDI) and taxes.

### Sectoral and Institutional Context

Energy sector performance has improved but challenges remain. Subsidies to the sector have been reduced from 1.5 percent of GDP in FY13 to about 0.4 percent of GDP in FY17. Falling oil prices have reduced input costs for electricity generation enabling tariffs to be adjusted downwards. A gap between costs and revenues including subsidies of about PKR 2.5/kWh (US\$ 2.4/kWh) remains, however, and the sector continues to suffer acute liquidity shortages and, with over 35 percent of electricity generated from oil, is extremely vulnerable to oil price increases. The country is facing wide-spread load-shedding attributable to insufficient generation capacity, lack of fuel supply because of financial deficit and constraints in transmission and distribution network. The energy crisis, however, provides an opportunity for Pakistan to scale-up the development of its abundant and indigenous renewable energy resources. Least cost analysis indicates that hydropower is a key component of the least cost option for energy supply in the country. The development of these resources, however, require public sector interventions, and significant investments from both private and public sectors.

Pakistan possesses rich renewable energy resources, including hydropower and about 50 percent of 40,000 MW of hydropower potential lies in the Khyber Pakhtunkhwa Province (KP). The governments, at both federal and provincial levels, have started to finance various hydropower schemes. Sites on the River Indus are being developed by WAPDA, a federal entity, while Government of KP (GoKP) through Pakhtunkhwa Energy Development Organization (PEDO) is focusing on other rivers flowing through KP. Though at a relatively slow pace, private investors have also started to invest in the development of hydropower. Despite the huge potential the pace and scale of hydropower development is slow. Only 15 percent of Pakistan's total hydropower potential has been developed mainly comprising of few mega hydropower projects.

The World Bank's engagement in Pakistan's hydropower sector started with the Indus Water Treaty of 1960. Presently, the Bank is financing two major hydropower projects – (1) Tarbela 4th and 5th extension (2,820 MW, P115893) and Dasu Hydropower Stage 1 Project (2,160 MW, P121507). All of these interventions are at the federal level. The 18th amendment to the constitution in 2010 has opened the door for the provinces to invest in large generation projects. 2015 Power Policy of the Government of Pakistan (GOP) defines the role of provinces in power project development. In accordance with the Power Policy of 2015, GoKP has



developed Hydropower Policy 2016 and related Guidelines to attract private investment and fast track project implementation. So far the pace of development is slow and would require technical assistance and financing to unleash hydropower development by GoKP.

#### Relationship to CPF

The shortages of energy are widely recognized to have held back Pakistan’s economic performance. The Country Partnership Strategy (CPS) for 2015-2019 recognizes the importance of energy by devoting one pillar exclusively to it. The project will support generation of low-cost renewable energy during the peak demand period of summer months when shortages are at their worse. Increased supply at competitive prices from these hydro schemes would support economic growth for all enterprises that use electricity, particularly in the Districts of Swat and Dir where the identified schemes are located. These two districts rank poorly in terms of socio-economic indicators. Thus, in addition to increasing the supply, the proposed project supports the World Bank’s twin goals of poverty reduction and shared prosperity.

### C. Proposed Development Objective(s)

**Note to Task Teams:** The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

Increase installed hydropower capacity and build institutional capacity for further hydropower development in Khyber Pakhtunkhwa.

#### Key Results (From PCN)

Key results include:

- 1) Hydropower capacity constructed under the project
- 2) Increase in electricity supply
- 3) Mobilization of additional finances to accelerate hydropower development by GoKP

In addition to the above key indicators project will also track improved socio-economic services in the project area. Social Action Plan to improve local living will be part of the project. Social assessment will help identify specific social schemes in consultation with women and will be implemented under Resettlement Action Plan to directly benefit women of the area. The project will improve economic development locally during construction and operation benefiting the households and businesses alike.

### D. Concept Description

The project will support the development of Cascade on Swat River and Panjkora River and their power evacuation. Four run-of-river hydropower schemes have been identified – two each on Swat and Panjkora River divided into following three components based on their status – 1) with feasibility, 2) identified sites without feasibility, 3) assessment of new and ongoing schemes for possible bank financing. Their viability will be assessed during project preparation and will be developed in a sequenced manner matching the availability of funds. In addition, there will be a technical assistance and capacity building component to support project implementation.



**Note to Task Teams:** The following sections are system generated and can only be edited online in the Portal.

## **SAFEGUARDS**

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

The four run-of-river hydropower sites are in Districts Upper Dir and Swat of Khyber Pakhtunkhwa on Rivers Swat and Panjkora. Panjkora River falls into Swat River near Chakdara in the Malakand district. Two sites on Panjkora River (Barikot-Patruk and Patruk-Shringal) have been identified where feasibility is complete. The project will also undertake feasibility and design study for 110MW Gabral-Kelam HPP on Swat River. The fourth site is assessment of an ongoing project 84MW Matiltan HPP for possible investment financing by the World Bank.

Panjkora River sites are in Upper Dir. The topography of this district is primarily rugged and high altitude mountains of Hindukush ranging from 6,000 meters in the north to 2,000 meters in south-west. Geological structure of the district is metamorphic and igneous rocks comprising of four main types. Coniferous forests are found in western part of the district and the eastern mountains are barren. This district does not have a wildlife reserve or protected area. Chakoor, Maina, Duck, Leopard and Jackal are found in the district.

Swat district like Upper Dir has snowcapped high mountains and forests. The northern mountains are above 4,000 meters with low vegetable cover. Dry temperate coniferous are present in the in elevation between 1,525 meters to 3,600 meters. There is also narrow zone of subtropical forests between 900 meters and 2,000 meters in Swat valley. Bhan, a community game reserve is located very close to Gabral Kalam site. Bhan has dry temperate forests and is habitat to endangered wild life including snow leopard, ibex, markhor and black bear. Swat also houses one of the oldest Buddhist civilization. There are a significant number of archaeological sites in the valley and very few have been excavated. These also include 20 world heritage monuments on UNESCP list.

Swat district has a population of 1.3 million with density of 235 per sq km (1998 census). About 86% of the population lives in rural areas. About 24% of the population is considered to be living below the poverty line. Mini and micro hydel schemes have been successful and common in Swat but the poor rural communities are often unable to bear costs of repair and operation. Average population per hospital/rural health center is more than 200,000 and is underserved. The literacy rate at 47% -68% male, 24% female is also low. Swat district is emerging from a devastating decade of instability that impacted on its economy and social service delivery.

### **B. Borrower's Institutional Capacity for Safeguard Policies**

This is going to be the Bank's first engagement with the Government of Khyber Pakhtunkhwa (GoKP) in the Hydropower Sector through its Pakhtunkhwa Energy Development Organization (PEDO). PEDO has some experience of working with Asian Development Bank that has financed two small projects of 17MW and 3MW. PEDO has also used Hydro Development Fund of GoKP and local borrowing for another 84MW project (Malakand III). Given its limited experience of developing hydropower projects borrower's institutional capacity to implement safeguard policies needs to be assessed and strengthened. Moreover, consultants will be engaged to monitor and supervise implementation of the Environmental and Social Management Plans during construction to ensure compliance with safeguard policies. The Borrower's capacity will need to be strengthened for preparation and implementation of a Resettlement Action Plan.



**C. Environmental and Social Safeguards Specialists on the Team**

Salma Omar, Social Safeguards Specialist  
Mishka Zaman, Social Safeguards Specialist  
Ahmad Imran Aslam, Environmental Safeguards Specialist

**D. Policies that might apply**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The project activities involve large scale construction and this is likely to cause adverse environmental and social impacts. Some of these impacts are expected to be permanent and irreversible. Therefore, the project has been categorized as Category A. A full Environmental and Social Assessment, in accordance with OP 4.01, will be carried out for the two sites (Barikot-Patrak and Patrak-Shringal) for which feasibility is complete. Environmental and social aspects of the ongoing project (Matiltan) will be assessed as part of the project. Furthermore, feasibility and design studies under the project will include assessment of environmental and social aspects.</p> <p>Projected impacts include issues related to river ecology in the reservoir area, connectivity and alteration of downstream flows, change in fish habitat from present high velocity to slow velocity of a lake, chopping and inundation of trees and resettlement related issues. Construction related impacts could include dust and noise generation, release of effluents, impacts on physical cultural resources, vehicular traffic, safety hazards for workers as well as communities, electromagnetic radiation (from transmission line), crop damage and compensation for under transmission line. Potential impacts during operation and maintenance activities include changes in river flows, ecology in the reservoir area and its impact on fish habitat, waste generation from repair and maintenance of power plant, offices and residential facilities, safety hazards caused by power generation facility as well as transmission lines, and electromagnetic radiation from transmission lines.</p>
Natural Habitats OP/BP 4.04	Yes	Hydropower and dams known to have an impact on river and fish habitat. Therefore, this policy has been triggered. Impact of the projects on natural habitats



		will be assessed in the Environmental Impact Assessment (EIA) and Cumulative Impact Assessment (CIA) studies and if required a separate study on natural habitat would be undertaken. In addition, for Gabral-Kelam site which is close to Bhan community game reserve ecologic impact would be assessed through feasibility and design studies.
Forests OP/BP 4.36	TBD	Both Swat and Upper Dir have forests and project may have an impact on forests. Further assessment will be made and final decision to trigger this policy will be taken at appraisal stage.
Pest Management OP 4.09	No	The project is not expected to use any types of pesticides. Therefore, the policy has not been triggered.
Physical Cultural Resources OP/BP 4.11	TBD	At this point it is not clear if any of the physical cultural resource is going to be impacted. Further assessment will be made during impact assessment and final decision to trigger this policy will be taken at appraisal stage when full impact assessment has been carried out.
Indigenous Peoples OP/BP 4.10	No	There are no Indigenous People in the project area.
Involuntary Resettlement OP/BP 4.12	Yes	Land acquisition will be undertaken for the Project. Barikot-Patrak site will require about 41 acres of land while Patrak-Shringal will require 35 acres. Resettlement is expected to take place but no major issues with respect to resettlement are envisaged. Resettlement Action Plan will be prepared prior to appraisal.
Safety of Dams OP/BP 4.37	Yes	All four projects are expected to fall into the category of large dams as described by the policy. Therefore, this policy has been triggered. Independent Panel of Experts (IPOE) consisting of experts in the field of dam construction, hydraulics, geo-technical, environmental and social will be engaged to review project design and construction activities. In addition, Dam Safety Reports will be prepared.
Projects on International Waterways OP/BP 7.50	Yes	
Projects in Disputed Areas OP/BP 7.60	No	The project site is not located in a disputed territory as defined by the policy. Therefore, this policy is not triggered.



### **E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Nov 30, 2018

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 Appraisal Stage PID/ISDS

The client is expected to request for the preparation advance which will also be used to conduct environmental and social impact assessment (ESIA) and re-settlement action plan (RAP) for the identified sites. Consultants hiring process will take about six months and another twelve months will be required to prepare, consult and disclose safeguard-related studies including:

- 1) Environmental and Social Assessment (full Impact assessment)
- 2) Resettlement Action Plan
- 3) Cumulative Impact Assessment

### **CONTACT POINT**

#### **World Bank**

Mohammad Saqib, Masood Ahmad  
Senior Energy Specialist

#### **Borrower/Client/Recipient**

The Islamic Republic of Pakistan  
Humaira Ahmed  
Additional Secretary, Economic Affairs Division  
humaira2875@hotmail.com

#### **Implementing Agencies**

Pakhtunkhwa Energy Development Organization  
Akbar Khan  
Chief Executive Officer  
akbar.ceo@pedo.pk





**FOR MORE INFORMATION CONTACT**

The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

**APPROVAL**

Task Team Leader(s):	Mohammad Saqib, Masood Ahmad	
<b>Approved By</b>		
Safeguards Advisor:	Takeaki Sato	06-Oct-2017
Practice Manager/Manager:	Demetrios Papathanasiou	11-Oct-2017
Country Director:	Melinda Good	07-Nov-2017

**Note to Task Teams:** End of system generated content, document is editable from here.