

**COMBINED PROJECT INFORMATION DOCUMENTS / INTEGRATED  
SAFEGUARDS DATA SHEET (PID/ISDS)  
ADDITIONAL FINANCING**

**Report No.:** PIDISDSA16121

**Date Prepared/Updated:** 13-Jun-2016

**I. BASIC INFORMATION**

**A. Basic Project Data**

<b>Country:</b>	Pakistan	<b>Project ID:</b>	P157372
		<b>Parent Project ID (if any):</b>	P115893
<b>Project Name:</b>	Additional Financing to PK: Tarbela 4th Extension Hydropower Project (P157372)		
<b>Parent Project Name:</b>	Tarbela Fourth Extension Hydropower Project (P115893)		
<b>Region:</b>	SOUTH ASIA		
<b>Estimated Appraisal Date:</b>	06-Jun-2016	<b>Estimated Board Date:</b>	15-Sep-2016
<b>Practice Area (Lead):</b>	Energy & Extractives	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	Hydropower (85%), Other Renewable Energy (3%), Transmission and Distribution of Electricity (6%), General water, sanitation and flood protection sector (6%)		
<b>Theme(s):</b>	Other economic management (67%), Water resource management (33%)		
<b>Borrower(s):</b>	Economic Affairs Division		
<b>Implementing Agency:</b>	Water and Power Development Authority (WAPDA)		
<b>Financing (in USD Million)</b>			
	<b>Financing Source</b>		<b>Amount</b>
	Borrower		133.50
	International Bank for Reconstruction and Development		390.00
	Foreign Multilateral Institutions (unidentified)		300.00
	Total Project Cost		823.50
<b>Environmental Category:</b>	A - Full Assessment		
<b>Appraisal Review Decision (from Decision Note):</b>	The review did authorize the team to appraise and negotiate		

<b>Other Decision:</b>	
<b>Is this a Repeater project?</b>	No

## B. Introduction and Context

### Country Context

Pakistan's economic performance is improving. Real GDP growth was 4.2 percent in fiscal year 2014-2015 (FY14/15), despite natural disasters and a difficult political and security situation, and is expected to rise further in FY15/16. The threat of a balance of payments crisis, severe a year ago, has receded. Foreign exchange reserves had risen to over 3 months of imports by about midyear and have remained above that level since. The fiscal deficit was 5.3 percent of GDP in FY14/15. Inflation was 4.5 percent at the end of the year, helped by lower energy prices. The IMF program is on track, having completed the eighth review at the end of September 2015. The outlook is for moderately higher growth, nevertheless, the economy is still vulnerable to shortages of energy, natural disasters 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 were reduced in FY14/15 to about 0.8 percent of GDP, down from 1.5 percent in FY12/13. 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 2.7/kWh remains, however, and the sector continues to suffer acute liquidity shortages. As a result, accumulated arrears of payment by the public electricity distribution companies (Discos) to their suppliers, commonly known as the circular debt, reached an estimated PKR 314 billion, at the end of FY14/15 or a little over one percent of that year's GDP. Targeting of subsidies towards the poorest remains an issue, as does the need to ensure that the sector develops in a socially and environmentally sustainable way.

## C. Proposed Development Objective(s)

### Original Project Development Objective(s) - Parent

The overall project development objective is to facilitate a sustainable expansion in Pakistan's electricity generation capacity. The Project would also strengthen WAPDA's capacity to develop the country's hydropower resources.

### Key Results

The PDO is "The overall project development objective is to facilitate a sustainable expansion in Pakistan's electricity generation capacity" as defined in the legal documents of the Parent Project and the AF. The second sentence "The Project would also strengthen WAPDA's capacity to develop the country's hydro-power resources" has been wrongly entered in the system and cannot be deleted at this stage.

The proposed AF supports the World Bank's twin goals of poverty reduction and shared prosperity. The Country Partnership Strategy (CPS) for 2015-2019 recognizes the importance of energy by devoting one pillar exclusively to it. The shortages of energy are widely recognized to

have held back Pakistan's economic performance. The project will support generation of low-cost renewable energy during peak demand period of summer months when shortages are at their worse. Increased supply at competitive prices from T5HP would support economic growth for all enterprises that use electricity, regardless of size or sector. In addition to increasing the supply thus reducing load shedding it will also supplement government's reform program to reduce power sector subsidies and improve its financial viability by reducing the dependence on imported fuels and lowering cost of supply.

Proposed scaled-up operation would lead to changes in the project key performance indicators (KPIs) including: (i) increase in the electricity supply from about 3,000 GWh (original project) to 4,800 GWh (with AF); (ii) availability of additional generation capacity during summer months from 1,410 MW to 2,820 MW and (iii) between 2.3 to 2.9 percent reduction in overall production cost of energy.

#### **D. Project Description**

The proposed AF for Tarbela Fifth Extension Hydropower Project (T5HP) would support the scaling up of project activities by adding 1,410 MW to an existing tunnel number 5 of Tarbela Dam on Indus River, presently being used to release water for irrigation only when the reservoir level is below the minimum spillway operating level and water releases from the existing power units is not adequate. With power house installed it would continue to carry out the same function and in addition water released from spillway would be diverted through the tunnel 5 and only remaining water would be passed over the spillway. This would maximize use of the existing facilities and serve the critically needed power for the country. It will generate approximately additional 1,800 GWh utilizing the same flows at a very low cost compared to alternative generation from thermal or other hydropower projects, that is because all other infrastructure such as dam and tunnel are already constructed. Most importantly the gestation period of the project is short (39 months from the start of construction) this would help alleviate the severe black outs and highly costly self-generation.

The component structure will remain the same, with one additional sub-component for the transmission line. The proposed AF for T5HP would support the scaling up of project activities under all components. Key ones are: (i) Construction of power house and modification to the existing Tunnel 5 (Component A); (ii) power units and ancillary equipment for power house on Tunnel number 5 (Component B1, and B2); (iii) transmission line (a new sub-component under Component B3); (iv) construction supervision and implementation support (Component D); and Project management support technical assistance and training (Component E). The construction period for T5HP is estimated to be about 39 months considering logistical and technical constraints involved with parallel activities on T3, T4 and T5 including meeting the irrigation requirements.

##### **Component Name**

Component A: Construction of Power House and Modification to the Tunnel

##### **Comments (optional)**

This component would primarily cover civil works required for T5HP under a single contract, including constructing the T5 power house and a penstock connecting Tunnel 5 to the power units. It would also include modifications to the tunnel intake by constructing a raised intake that would connect to the existing tunnel. The construction of the raised intake would prolong the life

of the power house.

**Component Name**

Component B: Power Units and Ancillary Equipment

**Comments (optional)**

This component would cover the cost and installation of: (B1) turbines, generators, transformers, ancillary and electro- mechanical equipment (US\$251.4 million); (B2) transformers and equipment for the switch yard to connect generation to the transmission line (US\$68.4 million); and (B3) a new sub-component added to the Project for construction of a new double circuit transmission line from Tarbela (US\$50 million).

**Component Name**

Component C: Social Action and Environmental Management Plans

**Comments (optional)**

Sub-Component C1 (US\$4.2 million) and C2 (US\$3.0 million) would support implementation of Social Action Plan (SAP) and Environment Management Plan (EMP) respectively. About US \$5.8 million would be allocated for Sub-Components C3: Dam Safety and Monitoring Program. There is additional funding (about US\$12 million) available from KfW for the sub-component C4 on Glacier Monitoring.

**Component Name**

Component D: Construction Supervision Monitoring and Evaluation

**Comments (optional)**

It has two sub-components. D1: Construction Supervision and Implementation Support (US\$28.5 million) covers the cost of consulting and other services for project implementation, including construction supervision and project management support. It would also cover implementation of all activities under the Project, including: procurement, contract administration, quality control, certification of payments, financial management, preparation of any additional designs, and bidding documents, etc.

**Component Name**

Component E: Project Management Support, Capacity Building, Technical Assistance and Training

**Comments (optional)**

The original project has financed significant capacity building activities and TA for project preparation and strategic studies. The amount allocated under the three sub-components E1: Project Management Support and Audits (US\$8.8 million); E2: Strengthening of WAPDA, Independent Panel of Experts and Technical Assistance (US\$6.2 million); and E3: Future Project Preparation and Strategic Studies including a pilot of floating solar power plant in Tarbela reservoir (US\$27.6).

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

The power generation facility of the T5HP Project will be located at Tarbela Dam on the Indus river, about 60km north-west of Islamabad and 7kms upstream of Ghazi Barotha run-of-the river hydropower project (GBHP). Tarbela dam has the largest embankment-volume in the world with

original gross storage capacity at 11 MAF. Tarbela dam was commissioned in 1976 and is the lifeline for Pakistan's agriculture and economy. Tarbela dam has five (5) tunnels and two (2) spillways and the hydropower units are installed on Tunnels 1 to 3. Construction works are underway at Tunnel 4 under a World Bank financed project that will add 1410 MW to the national system.

In addition to the tunnel control buildings, offices, power generation facilities, switch yard, and ancillaries, the Tarbela Dam Project (TDP) houses residential colony for the WAPDA staff and a few small villages. The area has a hilly terrain with vegetation cover of mostly shrubs and scrub with some trees. The entire area of TDP comprises of modified habitat and hence does not support any significant wildlife resources.

The proposed transmission line for power evacuation from the T5HP will pass through mostly hilly area near the Tarbela dam, and then through generally plain area with some settlements and cultivation lands for about half of the total length of the transmission line of 50 km. The remaining portion of the route has some low hills, undulating terrain, and some patches of cultivated lands. The route crosses two major highways in addition to some local roads and a small river. The area does not support any important/critical floral or faunal resources owing to the mostly modified nature of natural habitat.

## **F. Environmental and Social Safeguards Specialists**

Chaohua Zhang (GSU06)

Javaid Afzal (GEN03)

Salma Omar (GSU06)

## **II. Implementation**

### **Institutional and Implementation Arrangements**

Water and Power Development Authority (WAPDA) is the main implementing entity for the project including environmental due diligence. The overall implementation arrangements for environmental and social safeguards and performance of the parent project, Tarbela Fourth Extension Hydropower Project (T4HP), are satisfactory and compliant with the environmental and social management plans. Therefore, the implementation arrangements under the Additional Financing (AF) will remain the same as for the T4HP. The implementation and coordination of additional activities shall be actively managed by the Project Management Unit for T5HP (PMU-T5) which will work in close coordination with the existing PMU for T4HP (PMU-T4) both under the General Manager (GM) Tarbela. GM Tarbela would also be the Project Director of T5HP. The procurement, contract management, financial management and environmental and social units and fiduciary staff will be common for both the units. National Transmission and Dispatch Company (NTDC) will implement the transmission sub-component through a dedicated PMU.

WAPDA and NTDC PMUs would be supported by two sets of consultants recruited by WAPDA - Construction Supervision Consultants (CSCs) and Project Management Support and Monitoring and Evaluation Consultants (PM&ECs). The CSCs would help in construction supervision, contract management, and other management aspects of the Project. The PM&ECs would assist in Project Management and in carrying out the role of the employer in the works contracts, and monitoring and evaluation. The PM&ECs would also supervise the implementation of the Social Action Plan (SAP) and Resettlement Action Plan (RAP), and Environmental Management Plan (EMP), and carry out

independent M&E of project activities. In addition, Independent Panel of Experts (IPOEs) comprising of social, environment and technical experts would continue to oversee the project during the construction phase and advise WAPDA and GOP on the project issues that may arise during construction and/or project implementation period.

The same financial management (FM) arrangements being used in the current project, which are satisfactory to IDA and IBRD, will be used under the proposed AF. However, NTDC will be a new implementing entity for the transmission line sub-component. WAPDA will continue to be the recipient of this loan and will transfer the funds to NTDC through a tripartite subsidiary loan agreement between Government of Pakistan (GOP), WAPDA and NTDC. Procurement for the proposed AF would be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated January 2011 (Revised July 2014); and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated January 2011 (Revised July 2014), and the provisions to be stipulated in the Legal Agreements.

### III. Safeguard Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project activities involve large scale construction and this is likely to cause adverse environmental and social impacts. Construction related impacts could include dust and noise generation, release of effluents, 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 waste generation from repair and maintenance of power plant and also from offices and residential facilities for the WAPDA staff, safety hazards caused by power generation facility as well as transmission lines, and electromagnetic radiation from transmission lines. In parallel to construction of T4HP, appropriate construction sequencing for T5HP to minimize impacts on downstream releases are to be ensured. The project has prepared an Environmental and Social Assessment that also looks into cumulative impacts, environmental flows and assess climatic risks. In view of these potential impacts, the project has been categorized as Environment Category A and therefore a full ESA has been carried out in accordance with OP 4.01. For pilot on floating solar panels and other future projects under Component E that are expected to have environmental impacts, environmental assessment studies will be carried as part of their feasibility studies.
Natural Habitats OP/BP 4.04	Yes	Project area, including transmission line corridor, is

		located in areas where natural habitat has mostly been modified due to the previous projects and other developments. Detailed ecological studies have been carried out under the ESA. The ESA found that no sensitive habitat exists at or near the project sites including along the transmission line corridor; and will not have any impacts on existing hydrological regime of Indus and associated natural habitats. Project activities will mostly have insignificant impacts on natural habitat. However, the cumulative impact assessment has identified some potential impacts on migratory birds associated with existing and planned transmission lines in the area and hence this policy is triggered. In response, the ESA recommends additional studies to address the cumulative impacts associated with original Tarbela dam and Ghazi Barotha, and other hydropower projects on Indus along with their transmission lines as well as to determine the adequacy of the current environmental flow releases.
Forests OP/BP 4.36	No	Project is located in areas where no forests exist at or near the project sites. Project activities will not have any impacts on forest resources.
Pest Management OP 4.09	No	The Project does not include any construction, operation or maintenance activities that require the use of pesticide or other agro-chemicals. This includes maintaining of the Right of Way (RoW) beneath the power evacuation lines. No pesticides or herbicides are used to maintain RoW as per the standard practice of NTDC.
Physical Cultural Resources OP/BP 4.11	No	No known areas of cultural heritage will be impacted by the Project. Procedures will be in place to appropriately deal with any chance finds.
Indigenous Peoples OP/BP 4.10	No	There are no indigenous people in the project area as defined under this World Bank OP.
Involuntary Resettlement OP/BP 4.12	Yes	The transmission line from Tarbela will have social impacts related to land taking for towers, crop and tree damage. No physical relocation is anticipated based on initial screening. The exact siting of towers will be finalized during the implementation phase. Hence exact resettlement impact zones and categories of impacts cannot be determined at this stage. A Land Acquisition and Resettlement Framework (LARF) has been prepared. A RAP will be prepared once the exact location of towers has been worked out. Stakeholder consultation meetings,

		focus group discussions and formal public consultations were carried out during ESA study.
Safety of Dams OP/BP 4.37	Yes	The dam safety policy is triggered since the construction works are implemented on a large dam including associated infrastructure situated upstream of a densely populated area. A robust dam safety and instrumentation system is already in place at Tarbela Dam. As part of the original project (T4HP), the existing Tarbela documents linked to maintaining dam safety have already been reviewed by the design consultants and also by an Independent Panel of Experts. The project will adapt the same Emergency Preparedness Plan (EPP) that has been developed for T4HPP.
Projects on International Waterways OP/BP 7.50	Yes	<p>Tarbela is located on the Indus River which is an international waterway, thus automatically triggering the policy on international waterways, OP 7.50. However, the Project consists primarily of the installation of a power unit on the existing Tunnel 5. It does not involve works and activities that would exceed the original scheme, change its nature, or alter or expand its scope and extent to make it appear a new or different scheme. Therefore, given the nature of works envisaged under the proposed Project: (i) the Project will not adversely affect the quality or quantity of water flows to other riparians; and (ii) it will not be adversely affected by other riparians' water use.</p> <p>The Project team has also reviewed Article VII of the Indus Waters Treaty of 1960 between India and Pakistan and concluded that a notification by Pakistan to India under paragraph (2) of the said Article VII is not required, as the Project would not cause interference with the waters of any of the Rivers and would not affect the other riparians materially. Therefore, like T4HP the T5HP also falls within the exception to the notification requirements of OP 7.50, set forth in paragraph 7(a) of OP 7.50. The Regional Vice President has approved the exception to notification for T4HP and the updated notification is also approved by the Regional Vice President.</p>
Projects in Disputed Areas OP/BP 7.60	No	The Project is not located in or near any disputed area.

#### IV. Key Safeguard Policy Issues and Their Management

## A. Summary of Key Safeguard Issues

### 1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Social safeguards:

T5HP will utilize an existing tunnel and the Tarbela reservoir. The power plant construction works would be entirely within a WAPDA zone, cordoned off from the public with a fence and security arrangements. Possible social impacts under the Project are expected to be related to construction operations. The Project will have both positive and negative impacts on local communities. Key benefits include employment opportunities during construction and an outreach social assistance program to support local communities in the Project's immediate vicinity. A SAP has been committed in the AF project along with resources based on experience gained in T4HP to guide future planning efforts to address such potential impacts and deliver the recommended community assistance schemes among communities in the vicinity of Tarbela Hydropower Plant and also within the ROW of the transmission line corridor. The impacts associated with the transmission line are expected to be with land taking for the towers, possible crops damages and tree cutting. No physical relocation is expected. A LARF is in place to guide the subsequent RAP/RAPs. For cash compensation under the project US\$2 million are allocated out of component B3.2 that is related to implementation of environment and social management plans. A memo for approval of cash compensation upto US\$2 million have been cleared by the legal and RSA and it is being submitted to the RVP for approval.

The original ESA prepared for the project and disclosed on March 3, 2016 also included land acquisition for the Islamabad West station to which the transmission line would be connected from Tarbela. However, this would now be financed from the Proposed Transmission System Modernization Project instead of AF to Tarbela 4th Extension. Therefore, an Addendum to the ESA has been prepared reflecting this change that is being disclosed on the Infoshop as well.

Environmental Safeguards:

The Project would provide significant environmental benefits in the long run by providing renewable, low cost, non-carbon energy without the environmental and social impacts/costs normally associated with hydro schemes. The Project would also help utilize more efficiently the scarce water resources of the Indus Basin by installing modern and more efficient turbines and machines for generation of electricity.

The environmental assessment of the Project prepared jointly by WAPDA and NTDC considers environmental issues likely to arise during the pre-construction, construction and operation phases of the project. The Environmental Assessment shows that environmental impacts are primarily limited to design and construction stage, are likely to be temporary and reversible in nature and would be managed locally. These would include impact on irrigation releases from Tarbela during construction activities in T5 tunnel; impact on irrigation releases from Tarbela during overlapping of construction activities in T4 and T5 tunnels, especially when the commissioning date of T4 is delayed; risk of soil and water pollution and generation of waste effluents; noise and vibration impacts on nearby communities especially on the village of Kukar Chawa which is located within the TDP facility at a distance of 500 m from the dam on the left bank; slight increase in traffic volume; and changes in plant succession of native species. Cumulative assessment indicate a

potential impact on migratory bird flyway and collision potential. Adequate mitigation measures, including the measures for phasing of construction activities, are included in the ESMP to address impacts. Construction of T5HP will not affect the overall water regime or operation of Tarbela and hence the release of current environmental flows will also not be affected by T5HP. Cumulative impacts associated with historical Tarbela and Ghazi Barotha Projects and future hydropower projects on Indus cascade have been studied, and additional ecological baseline studies are recommended in the ESMP for the 54 km dewatered section of Indus on the downstream of Tarbela. The study will assess the adequacy of the current environmental flow releases from Tarbela and will prepare detailed management plans to address the cumulative impacts including collision potential of migratory birds.

Net Greenhouse Gas Emissions from implementation of T5HP is reduction of 19.9 million tons of CO<sub>2</sub>e using Bank's Guidance Note: Greenhouse Gas Accounting for Energy Investment Operations, 2013 and IPCC 2006 guidelines.

Review of performance of T4HP Implementation in terms of environmental and social safeguards:

The team has been continuously reviewing the performance of T4HP implementation through regular missions to the project site, and in general the overall performance of environmental and safeguards is satisfactory. The lessons learnt from T4HP have been documented in ESA, and this AF is prepared based on the experience gained from the implementation of T4HP.

The Environmental and Social Management (ESMU), established under PMU, has been fully staffed with the qualified staff. The performance of the staff in managing the environmental and social tasks of the ESMP in T4HP, site inspections, health and safety audits, and preparation of quarterly periodic reports is found to be satisfactory. However, the staffing requirement of ESMU was originally underestimated and there were not enough transport and computing facilities. Adequate staffing and facilities will be provided under AF.

The collaboration between ESMU, contractors and consultants is found to be effective. The Contractor's performance in compliance with the environmental mitigation measures and occupational health and safety issues was also satisfactory. The routine training to the labor and other work force was given regularly. There have been no fatalities in the project, except a few minor injuries. There were some cases of non-compliance noticed in terms of labor rights and working conditions. Though the impacts on biodiversity are minimum, the project has been carrying out regular monitoring of the biodiversity in the project area and carrying out the plantation development activities. The contractor has established facilities for treatment of wastewater before discharging them into the river. The quality of the waste water discharges and the river water are being monitored regularly, along with the air and noise quality.

Implementation of the Social Action Plan by T4HP, which covers grievance redress mechanism, community development assistance program and outstanding claims of TDP and Ghazi Barotha projects is also satisfactory. The Grievance Redress Committee (GRC) was formed and it is fully functional. Cases related to community grievances are very few. The programs under community development assistance have been hundred percent completed in the first package and the works in the second package are in progress. Resettlement Claims Committee to deal with the legacy of TDB and Ghazi Barotha has so far received 450 claims, but could resolve on 15 cases. The committee will be reinstated under AF to continue the legacy program.

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

No indirect or long term impacts are likely to take place at or around the power generation facilities since the area is owned by WAPDA with controlled access and modified habitat. The ESA carried out for the AF indicates that no further changes such as induced development or further changes in habitat are expected at the TDP facilities. No land acquisition will be carried out any future activities.

Construction of large dams upstream of Tarbela (Dasu, Basha, and others) is likely to reduce the sediment inflows to Tarbela reservoir thus increasing its life. Construction of these dams and resulting reduction in sediment loads downstream is also likely to change the river habitat particularly for fish. Formulation of reservoirs has also a potential to promote fisheries in the area.

**3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.**

The ESA has considered several project alternatives including 'no-project' option, which is highly undesirable owing to the electricity shortfall in the country and over-reliance on costlier thermal power generation. Other alternatives considered include setting up other hydropower projects or thermal power plants. Owing to the low cost and short gestation period (because dam and tunnel already exist for AF project), the proposed project is a preferred option. Alternate routes for power evacuation transmission lines have also been considered and documented in the ESA.

**4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.**

An Environmental and Social Assessment (ESA) has been carried out for the AF project, in accordance with the OP 4.01 (and also national/provincial regulatory framework). The ESA identifies potential environmental and or social impacts of the AF project and proposes appropriate avoidance, mitigation and or compensatory measures to address these potential impacts. The ESA also include an Environmental and Social Management Plan (ESMP) that will be included in the bidding documents for construction works. A Land Acquisition and Resettlement Framework (LARF) has been prepared by NTDC to guide future RAP(s). In addition, a Social Action Program (SAP) will be implemented for neighboring villages and for communities located in the vicinity of the TL. Under Tarbela 4, a SAP was implemented in neighboring settlements with community consultations and made several small infrastructure schemes. Community feedback was highly appreciative of these schemes. Using the lessons learnt from this experience, the SAP will be implemented under the AF and include not just small infrastructure but also other interventions such as training. The SAP will also undertake more widespread consultation with women and implement schemes identified as priorities by them. The ESMP also covers formation of Resettlement Claims Committee for continuation of social legacy program of T4HP.

WAPDA has a long experience in implementing land acquisition and resettlement issues as well as environmental management and mitigation plans under previous and on-going projects such as Tarbela 4th HP project and Dasu Hydropower Stage 1. The performance of the T4HP implementing agencies with regards to compliance on environmental safeguards, including health and safety in construction and operational aspects, found to be satisfactory, and hence similar arrangements will used under the proposed AF . Technical assistance is in place to provide support on social safeguards and other social issues.

NTDC, which is responsible for implementing the Transmission Line component of the Project,

has an Environment and Social Impact Cell (ESIC). ESIC has also worked on social and environmental safeguards aspects of several projects and are currently engaged in Dasu transmission also.
<b>5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.</b>
<p>For the power generation component of the AF project, the key stakeholders include WAPDA staff at TDP facility and residents of a small village inside the TDP area. The nearest village is Kukar Chawa located at about half kilometer away from the construction area. It consists of 60 households and a total population of about 350 people. Specific interventions are proposed under the ESMF to ensure that the residents are not disturbed by noise and other construction related impacts. Further, the residents will be given priority in labour recruitment. The village was also included in the SAP under T4. Additional schemes are planned for Kukar Chawa under the SAP for AF.</p> <p>For the transmission line, the nearby communities are the key stakeholders. In addition, institutional stakeholders include WAPDA officials, environmental protection agencies, and locals as well as international NGOs. As part of the ESA preparation, consultations have been carried out with all of these stakeholders through stakeholder consultation meetings, focus group discussions and formal public consultations. Public consultations were held at two locations in the project area. Process and outcome of these consultations have been documented in the ESA. ESA also includes a framework for the consultations to be carried out during project implementation.</p> <p>Consultations with local communities for the power evacuation (TL) component show that people were most concerned about the reduction in the value of their land in the TL corridor. They requested compensation in lieu of loss/reduction in land prices. Communities also raised concerns regarding health and safety given close proximity of the TL. They requested for greater employment facilities in the project and construction of social infrastructure such as access roads, water supply and piped gas supply. Consultations with institutional stakeholders highlighted the need to ensure that the TL corridor is suitably aligned with existing infrastructure such as road network and bridges, suitable health and safety measures are in place and that proper clearances from EPA are in place.</p>

***B. Disclosure Requirements***

<b>Environmental Assessment/Audit/Management Plan/Other</b>	
Date of receipt by the Bank	02-Mar-2016
Date of submission to InfoShop	03-Mar-2016
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	25-May-2016
<b>"In country" Disclosure</b>	
Pakistan	02-Mar-2016
<i>Comments:</i>	
<b>Resettlement Action Plan/Framework/Policy Process</b>	
Date of receipt by the Bank	31-Jan-2016

Date of submission to InfoShop	03-Mar-2016
"In country" Disclosure	
Pakistan	29-Feb-2016
<i>Comments:</i>	
<b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b>	
<b>If in-country disclosure of any of the above documents is not expected, please explain why:</b>	

### ***C. Compliance Monitoring Indicators at the Corporate Level***

<b>OP/BP/GP 4.01 - Environment Assessment</b>	
Does the project require a stand-alone EA (including EMP) report?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>OP/BP 4.04 - Natural Habitats</b>	
Would the project result in any significant conversion or degradation of critical natural habitats?	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?	Yes [ <input type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input checked="" type="checkbox"/> ]
<b>OP/BP 4.12 - Involuntary Resettlement</b>	
Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Is physical displacement/relocation expected?	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ] TBD [ <input type="checkbox"/> ]
Provided estimated number of people to be affected	
Is economic displacement expected? (loss of assets or access to assets that leads to loss of income sources or other means of livelihoods)	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] TBD [ <input type="checkbox"/> ]
0 Provided estimated number of people to be affected	
<b>OP/BP 4.37 - Safety of Dams</b>	
Have dam safety plans been prepared?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>OP 7.50 - Projects on International Waterways</b>	
Have the other riparians been notified of the project?	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Has the RVP approved such an exception?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>The World Bank Policy on Disclosure of Information</b>	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>All Safeguard Policies</b>	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

## V. Contact point

### World Bank

Contact: Masood Ahmad

Title: Lead Hydropower Specialist

### Borrower/Client/Recipient

Name: Economic Affairs Division

Contact: Mr. Tariq Bajwa

Title: Secretary

Email: secretary@ead.gov.pk

### Implementing Agencies

Name: Water and Power Development Authority (WAPDA)

Contact: Mr. Iqbal Masood Siddiqui

Title: GM & PD, Tarbela Dam Project

Email: gmnptarbela@gmail.com

**VI. 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>

**VII. Approval**

Task Team Leader(s):	Name: Masood Ahmad	
<b><i>Approved By</i></b>		
Safeguards Advisor:	Name: Maged Mahmoud Hamed (SA)	Date: 14-Jun-2016
Practice Manager/ Manager:	Name: Julia Bucknall (PMGR)	Date: 14-Jun-2016
Country Director:	Name: Keiko Nagai (CD)	Date: 15-Jun-2016