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EUR 804 million committed in 12 years **23** projects financed since 2006

EUR 610 million committed in favour of

the clean energy sector

Present in Pakistan since 2006, AFD offers financing solutions and technical assistance to support the Pakistani government in its development policy. AFD works with government partners and local authorities to develop low-carbon infrastructures and improve access to essential services for the population.

Our objective: To promote green and inclusive growth in Pakistan.



#WorldInCommon

OUR ACTION IN Pakistan

Supporting the energy transition

Pakistan's energy sector is undergoing a major crisis: the country manages to meet only half of its electricity demand. The frequent electricity outages handicap businesses and interrupt industrial production, contributing further to the degradation of the economic situation.

AFD's intervention in Pakistan aims at resolving this crisis by developing low-carbon energy alternatives. Pakistan's water resources provide the country with a vast and mostly untapped source of hydroelectric potential. Of this potential, estimated to be about 54 GW, only 12% has been tapped. AFD is therefore becoming increasingly involved in the financing of energy effectiveness by optimising the performance of Pakistan's existing hydroelectric plants, in addition to

improving access to reliable, affordable energy.

A key actor in Pakistan's energy transition, AFD's approach involves the generation of decarbonised energy (mainly hydroelectricity and solar), the upgradation and strengthening of the distribution network, and being a part of policy dialogue around the sector. For instance, we are financing the rehabilitation of the Warsak and Mangla hydroelectric power stations as well as the construction of the Jaggran-II and Harpo hydroelectric power stations. Apart from benefiting the economy by allowing for more affordable power production, these projects also benefit local communities, providing support for flood prevention and warning systems.

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Strengthening the water and sanitation sector

Pakistan's growing population and rapidly developing urban centres have raised the challenges of provision of basic services to its people. Investment in this sector is vital, which is why, as of April 2018, AFD has been investing in improving access to and provision of water and sanitation services in Pakistan.

AFD has granted a loan of 95 million euros to the Faisalabad Water and Sanitation Agency (F-WASA). The objective is to increase drinking-water production by 30 million gallons per day, by building a new drinking-water production plant, by increasing the existing plant and by improving the effectiveness of its distribution network.

In addition to increasing the city's drinking water production capacity, AFD also works towards a global vision of ensuring the sustainability of such investments. AFD's strategy in this sector therefore also seeks to combat water losses (physical and commercial), extend the distribution network to new neighbourhoods, and improve the financial viability of the sector through improving performance and thereby increasing service revenue.

We are also providing capacity building for the sector by supporting Al Jazari Academy, the institution that ensures the training of Pakistan's water agency professionals. The strategic importance this sector has on the future of the country means continued support from the AFD in the coming years.



Pakistan is one of the most urbanised countries in the region. Since 1951, Pakistan's urban population has been growing at the rate of 4% per year. By 2030, 60% of the total population will live in cities and the country will have 12 agglomerations exceeding one million inhabitants.

Innovative approaches in urban planning, access to basic services and urban transport performance is therefore vital to the country's growth and productivity. Pakistan's cities need to develop in order to withstand its rapidly increasing urban population.

AFD's strategy in Pakistan is aimed at supporting urban growth while improving the quality of life and the economic attractiveness of agglomerations. For this reason, AFD's focus is on urban mobility and transport infrastructure in fast-growing cities in order to limit congestion in cities, air pollution and CO_2 emissions. In addition, AFD will increase the attractiveness of cities by financing the safeguarding and enhancement of their historical heritage and contributing to the development of the tourism sector.

OUR KEY FIGURES IN **Pakistan**





Portfolio amount



1

PORTFOLIO DISTRIBUTION



Renovation of the Warsak hydroelectric power plant



Pakistan is going through a major energy crisis. In order to help solve this problem, the Pakistani government is relying partly on hydropower – a source of renewable and inexpensive energy. AFD is supporting this strategy by renovating the Warsak Hydropower Plant with a capacity of 243 megawatts.

BACKGROUND

Pakistan's energy sector is going through a major crisis. Power cuts are common and generally last up to 6-21 hours a day. The impact on the economy (2-3% loss of GDP growth rate) and on the living conditions of the people is considerable. In 2013, the government adopted a reform program consistent with the terms of the enhanced IMF facility: the upward adjustment of the per kWh price in order to ensure a reduction in the fiscal cost of supporting the sector; investment support with the priority being given to the cheapest power sources. Hydropower is an inexpensive source of energy and does not emit greenhouse gases. Pakistan has considerable assets: a huge untapped potential (only 6,700 MW installed as against a potential of 54,000 MW), with the result that hydropower accounts for just 30% of the annual power production; and a national public operator with good expertise, WAPDA (Water and Power Development Authority).

DESCRIPTION

The rehabilitation of the 243 MW Warsak hydroelectric power station, which produces nearly 1,000 GWh/year, is helping solve the energy crisis by enabling the Government of Pakistan to maintain a production capacity that is both inexpensive and non-emissive. Located in Northwest Pakistan on the Kabul River, the dam was built in the 1960s but is now suffering from dilapidated electromechanical equipment that has been heavily eroded and from the siltation of the reservoir. To meet these challenges, the project includes three actions:

- Rehabilitation work to secure the intake and renew all the electromechanical 0 equipment.
- Upgrading of the maintenance workshop 0
- Support measures for flood management and to fight against sedimentation. 0

- Being connected to the national grid, the project will benefit the entire economy: increased capacity to produce cost-effective renewable energy (from 1,000 to 1,144 GWh/year by recovering the drop height).
- Positive economic impacts: Economic rate of return of more than 20%. ٢
- Positive social impacts: the project will benefit the villages located near the dam through community development initiatives and better flood prevention and warning systems.
- Positive institutional impact : The project will strengthen the dialogue with ٢ WAPDA on cross-cutting issues such as flood management and sediment management.

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Skill development in hydroelectricity in Mangla



Pakistan suffers from a lack of skills in the hydroelectric power sector. With the establishment of this training centre, aimed at turning into Pakistan's Centre of Excellence in hydropower, the project will help to address the skill-gap of the sector's engineers and technicians.

BACKGROUND

Pakistan is experiencing a severe structural crisis in the energy sector, which is hampering the country's development. Hydropower is currently the most inexpensive solution to the crisis. WAPDA (Water and Power Development Authority), the main public operator in charge of hydropower, suffers from a lack of skills due to the gradual retirement of its experienced engineers and technicians. WAPDA has a hydropower training centre in Mangla, the Hydropower Training Institute (HPTI). The training centre is the country's only centre to offer training in hydropower. Inaugurated in 1977, it is now obsolete, in terms of the condition of its buildings, the quality of its equipment and the content of its curricula.

DESCRIPTION

The project, funded by an EU grant (Asia Investment Facility) delegated to AFD, includes two components:

- Construction of the training centre (HPTI): Located near the Mangla-Dina Road, the new building will be equipped with a conference room, library and adapted laboratories, classrooms and living areas. Designed with the help of an architect, the centre will incorporate technical education-related concerns, but also environmental and social concerns: landscaping and gardens, thermal and sound insulation, use of local materials, access for disabled persons, etc.
- Technical assistance: The work of a multidisciplinary AFD project team has enabled the development of this framework of intervention in close collaboration with WAPDA. The services of a consulting firm were provided in early 2013 with a funding of 140,000 Euros from AFD to estimate HPTI's training needs, the centre's design and architecture, the definition of the training equipment and the establishment of HPTI's Business Plan. Technical assistance was also provided for the revision of the training programmes offered and the initial training of trainers.

- Establishment of a national Hydropower Training Institute (HPTI) with the latest training equipment and an online training corpus meeting international standards.
- 500 people per year (sector players, students, private trainees) benefit from training offers.
- Positive impact on the hydropower sector: Improved management and maintenance of existing and future infrastructure and better consideration of environmental and social aspects and adaptation to climate change.



Mohmand-Munda multi-purpose dam (first phase)



Financing of the first phase of the Mohmand multi-purpose dam project, including detailed preproject studies and preparatory work.

BACKGROUND

Mohmand multi-purpose dam project will enable Pakistan to deal with three major challenges in this region namely flood protection, renewable energy production and rural development in crisis zones.

According to a report by the Supreme Court of Pakistan, the floods in 2010 caused more than 1,600 deaths, displaced 9 million people and damaged infrastructure estimated at USD 10 billion.

Meanwhile, existing renewable energy production capacities face serious constraints including circular debt, obsolete equipment and inadequate maintenance. Priority is given to irrigation rather than hydropower generation whereas Pakistan has a huge potential for hydropower. Load shedding has a considerable impact on Pakistan's economy and its people's living conditions as well. The Economic Mission in Pakistan estimated in January 2012 that the energy crisis was responsible for a loss of about 2% of GDP growth.

Finally, agriculture employs 45% of Pakistan's population and provides primary commodities to the country's large agro-industry. The development of new irrigation zones in the project area, located in north-western Pakistan's tribal regions, could have a stabilizing and anchoring effect on the production system, thereby helping restore social peace and furthering the fight against "militancy".

DESCRIPTION

The first part of AFD's funding is mainly related to the project's preliminary phase, namely studies and preparatory work. The Detailed Preliminary Design (DPD) study has been awarded by WAPDA to a consortium led by the Australian engineering firm, SMEC, with Japan's Nippon Koei and Pakistan's NESPAK and ACE. The project will cover preparatory work on access roads, erection of a bridge over the Swat River, construction site and investments required for site safety and studies. This will be followed by a due diligence study on the impact of climate change on the Mohmand project, assessing the project's sizing and robustness, with regard to the increased likelihood of floods and the revision of the 2000 project feasibility study.

- Against flooding: The project will be managed so as to maintain a minimum available volume of 300 million m³ in the reservoir during the monsoon period, thereby making it possible to absorb possible flooding and gradually release the waters downstream, thus playing a course regulating role for the Swat River.
- For hydropower. The dam will have an installed capacity of 740 MW, helping to solve the country's energy crisis. Any increase in hydroelectric production directly reduces load shedding, at a production cost per kWh lower than the sales tariff for electricity, thus reducing the sector's structural deficit. The increase in services would benefit local communities by improving their living conditions, but also the economy and the industrial sector. It will contribute to social peace in Pakistan.
- For rural development: It will irrigate an additional area of 6,110 hectares, which will promote economic development by improving the local inhabitants' income, helping restore civilian stability.

	Country Pakistan
Q	Location Munda
	Sectors Hunger and Food, Power
Ŷ	Financing tool Loan
	Amount financing 11M€
	Funding duration 56 Months
	Beneficiaries Islamic Republic of Pakistan
	Project start date 02/04/2014

Extension of the Aga Khan University Hospital in Karachi



The Aga Khan University Hospital in Karachi is Pakistan's most renowned health facility and plays a decisive social role in improving and providing access to health care. The project will finance the University Hospital extension project's environmental and social infrastructure.

BACKGROUND

Pakistan's health sector is ranked 146th out of 187 countries in terms of human development indicators. The limited resources allocated to the sector have resulted in the saturation of public health facilities, poor quality of care and a lack of qualified health personnel. In Karachi, the country's largest city (21 million inhabitants), the capacity shortage, already quite significant, is likely to worsen further with an annual 5% population growth. In this context of public sector deficiency, private actors (both for-profit and non-profit) have become the backbone of the health system and account for 77% of the healthcare supply in terms of the number of patients. Among these private actors, the Aga Khan Hospital and Medical College Foundation (AKHMCF) receives nearly 1.2 million patients a year and provides a full range of medical services of the highest international standards and helps enhance access to health care for disadvantaged patients, while providing specialised training to health experts.

DESCRIPTION

The project, initiated in 2009 and expected to be completed in 2017, consists of the extension of the AKHMCF University Hospital in Karachi:

- Opening of a vast ambulatory care centre.
- Increasing the hospitalisation capacity by 222 additional beds (distributed between the private care wing, general hospital beds and intensive care units, particularly neonatal and paediatric units).
- Establishing an innovation centre in medical education.

In addition to improving health care services, the focus is on the affordability of health services through a financial support programme for disadvantaged patients. Furthermore, the university hospital expansion programme requires US \$16 million for investments in infrastructure and equipment related to energy efficiency, securing power supply and the incineration of biomedical waste, to which AFD funding will be allocated.

- Increase in hospital capacity.
- Improvement in financial accessibility to quality care through the PWP program, which will pay for part of the treatment costs for disadvantaged patients.
- Improvement of the country's training capacity by building a medical education innovation centre.
- Significant reduction in environmental impact thanks to AFD's contribution, specifically targeted at energy efficiency and waste incineration thereby avoiding 26,000 tonnes of CO₂ equivalent per year.





AFD is an inclusive public financial institution and the main actor in France's development policy. It makes commitments to projects that genuinely improve the everyday lives of people, in developing and emerging countries and in the French overseas territories.

AFD works in many sectors – energy, health, biodiversity, water, digital technologies, training – and supports the transition to a safer, more equitable and more sustainable world: a world in common. Its action is fully in line with the Sustainable Development Goals (SDGs).

Through its network of 85 agencies, AFD operates in 109 countries and is currently supporting over 3,500 development projects. In 2017, it earmarked EUR 10.4bn to finance these projects.

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