Building a resilient energy sector in Afghanistan

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In its drive to achieve broad-based and inclusive development, Afghanistan has been making marked progress in ensuring a reliable and sustainable energy supply for its citizens. The country is particularly susceptible to natural hazards like floods, droughts, and earthquakes, and the national power supply remains highly vulnerable to disaster risk; in 2015, an earthquake of 7.5 magnitude on the Richter scale caused widespread power outages in the capital of Kabul.

In partnership with the Afghan government, including the Ministry of Energy and Water and the national power utility (DABS), GFDRR has been supporting efforts to enhance the resilience of the country’s energy system. In view of Afghanistan’s diverse energy mix, these engagements span the country’s power sector, from the grid-based system to solar to hydropower.

GFDRR is supporting vulnerability assessments of the resilience of the country’s preexisting and planned energy facilities, including solar power plants, wind farms, and hydropower plants. The assessments are designed to analyze the impacts of natural hazards and climate change and include projections of risk over a 50- to 100-year period that covers the expected lifespan of these facilities.

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A team of specialists supported by GFDRR is providing technical assistance to Afghan government officials to help them apply the findings from the assessments. For instance, the team organized a training course in Kabul for the Afghanistan Land Authority (ARAZI), which covers social, environmental, and geophysical criteria for siting new solar plants and wind farms, among other key topics.

As this initiative enters a new phase, a key focus moving forward will be the development of an action plan for resilient energy in Afghanistan in collaboration with local partners. The plan will define and prioritize a set of measures to enhance the resilience of energy systems, covering key areas such as energy production diversification, renewable energy development, and water resource management. A vision paper for the resilient development of solar power in Afghanistan has already been produced and will inform the broader action plan.