

CLIMATE-RESILIENT LOW EMISSION DEVELOPMENT IN BANGLADESH



Bangladesh and EC-LEDS are working together to reduce barriers to commercial-scale wind power deployment in the country.

PHOTO BY JASON FIELDS, NREL



Bangladesh is widely considered to be one of the nations most threatened by climate change. With two-thirds of the country less than 20 feet above sea level, the intrusion of salt into freshwater wells, frequent flooding, and the displacement of people from their homes is an ongoing threat. At the same time, the country's cities are rapidly growing, and the demand for energy is increasing at a corresponding rate.

QUICK FACT: Due to an increase in electricity demand without the corresponding growth in supply, a serious shortage has emerged, with only 60 percent of Bangladesh's population having access to electricity during hot summer months.¹

To manage the rapid growth of the country's cities while mitigating the impacts of climate change, the government of Bangladesh is working to create an actionable low emission development strategy (LEDS). Its LEDS is

outlined in the country's Climate Change Strategy and Action Plan (CCSAP), which details how Bangladesh will integrate climate-resilient low emission growth into its broader economic growth framework.

Through the Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program, Bangladesh has partnered with the United States to help build technical capacity to refine and implement its LEDS. The collaboration focuses on the following areas:

- Develop a national greenhouse gas (GHG) inventory system
- Build capacity for economic and emissions modeling and analysis
- Promote clean energy, particularly wind power
- Advance climate-smart agricultural practices
- Improve the management of Bangladesh's forests, wetlands, and biodiversity.

¹ Bangladesh Ministry of Power, Energy and Mineral Resources.

THE EC-LEDS PROGRAM

Low emission development strategies (LEDS) are development plans that promote sustainable social and economic development while reducing greenhouse gas emissions over the medium to long term.

Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) is a flagship U.S. government-led effort that assists countries in developing and implementing LEDS. The program enhances partner country efforts by (1) providing targeted technical assistance and (2) building a shared global knowledge base on LEDS.

EC-LEDS country partners include Albania, Bangladesh, Cambodia, Colombia, Costa Rica, Gabon, Georgia, Guatemala, Indonesia, Jamaica, Kazakhstan, Kenya, Macedonia, Malawi, Mexico, Moldova, Peru, the Philippines, Serbia, South Africa, Thailand, Ukraine, Vietnam, and Zambia.

SUPPORTING BANGLADESH'S LEDS PRIORITIES

EC-LEDS provides targeted technical assistance that meets the needs of the partner country. Two examples of working areas within the EC-LEDS-Bangladesh partnership are meeting growing energy demands and improving land-use management practices.

MEETING GROWING ENERGY NEEDS

For Bangladesh, developing and deploying renewable energy plays a key role in meeting the growing electricity demand, reducing reliance on imported fuel, and decreasing GHG emissions from burning fossil fuels. The country has identified wind power as one of the most promising ways to meet its renewable energy goals.

The EC-LEDS program is focusing on reducing barriers to commercial wind development in Bangladesh. U.S. experts are partnering with Bangladesh for wind resource data collection, assessment, and training.

Joint activities include:

- Conducting renewable energy analysis to identify and overcome technical and financial barriers to investment
- Installing and operating meteorological equipment to collect accurate, consistent wind data that are sufficiently rigorous for the commercial sector

- Developing a comprehensive wind resource map of the country that will reduce uncertainty, promoting wind development and enabling private sector investment.

IMPROVING LAND-USE MANAGEMENT

In Bangladesh, a trend toward urbanization, the threat of flooding due to rising sea levels, and competing needs of food production and forest conservation, underscores the need for comprehensive land-use planning. EC-LEDS is helping Bangladesh make science-informed decisions to improve management of the country's landscapes.

EC-LEDS activities include:

- Building expertise in collecting and archiving GHG inventory data in the agriculture, forestry, and land-use sectors, providing a foundation for managing and monitoring these emissions over time
- Developing in-country capacity for forest-cover mapping using remote-sensing technologies (such as satellite and radar) to create a national forest inventory that assists with forest resource management
- Identifying strategies to boost economic efficiency and reduce emissions in the agriculture sector by promoting best practices in fertilizer and water use.

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EC-LEDS ACCOMPLISHMENTS IN BANGLADESH

Several notable accomplishments have been achieved through the EC-LEDS program:

Identified wind resource data collection sites. To overcome the barriers to private-sector investment in large-scale wind development, EC-LEDS experts chose five sites to install wind data collection equipment.

Developed plans for a national GHG inventory system. The program helped lay out the actions for establishing a national GHG inventory system, which will enable Bangladesh to use GHG emissions data when creating strategic, long-term action plans that reduce GHG emissions.

Built capacity in forest monitoring. EC-LEDS and Bangladesh developed the curriculum for geographic and remote sensing techniques, which is used to increase the accuracy of forest measurements. EC-LEDS has used this curriculum to train key Bangladesh forestry staff.

EC-LEDS is managed by the U.S. Agency for International Development (USAID) and U.S. Department of State with support from the U.S. Department of Energy, U.S. Environmental Protection Agency, U.S. Department of Agriculture, and U.S. Forest Service.



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