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Ministry of Environment and Forests
Government of India

PARTNERSHIP FOR LAND USE SCIENCE (Forest-PLUS) PROGRAM



July 2013



President Barack Obama and Prime Minister Manmohan Singh participate in a bilateral meeting at Hyderabad House in New Delhi, India, Nov. 8, 2010. (Official White House Photo by Pete Souza)

U.S.–INDIA PARTNERSHIP

In 2012, the United States Agency for International Development (USAID) commemorated 50 years of development assistance to India, totaling over USD 52 billion. This assistance has contributed to India's growth story. Over the past 50 years, USAID/India's development assistance program has evolved from one that directly distributed food and constructed large-scale infrastructure projects at the macro-level, enabling it to achieve national-level dynamic impact, to one that introduced best international practices to improve the delivery of goods and services to targeted beneficiaries at the state and local levels.

USAID/India's assistance is not the only thing that has evolved over the past five decades; India itself has undergone a transformation, the likes of which are seldom witnessed on the world stage. Over the past two decades, India has emerged as an "indispensable partner" of the United States, South Asia's dominant regional power, and an increasingly important and influential global actor. During this time period, India has experienced accelerated economic growth, becoming a leading BRICS¹ country with the world's fourth largest economy in purchasing power parity terms while making progress towards achieving the Millennium Development Goals (MDGs). With more than 1.2 billion people, India is the world's largest democracy, a major power, and an important U.S. ally. Under its 2012-2017 strategy USAID is working with multiple public and private sector partners in India to develop, test, and deploy innovative technologies that address the global challenges of health, food security, climate change, and education. It is also focusing on developing new mechanisms that will allow it the flexibility to identify, support, and scale-up innovations that fall outside these sectors.

In November 2009, President Barack Obama and Prime Minister Manmohan Singh launched a partnership, reaffirming their countries' strong commitment to vigorous action to combat climate change, ensuring their mutual energy security, working towards global food security, and building a clean energy economy that will drive investment, job creation, and economic growth throughout the 21st century.

The two countries agreed on a comprehensive Memorandum of Understanding to enhance cooperation on energy security, energy efficiency, clean energy, and climate change. Through this Memorandum, both countries work jointly to accelerate development and deployment of clean energy technologies and to strengthen cooperation on adaptation to climate change, climate science, and reducing greenhouse gas emissions from forests and land use.

In September 2010, USAID and the Government of India (GOI) signed a 5 year partnership agreement to promote scientific and technical collaboration and exchange between India and the U.S. in the forestry sector. The funds for this come from the sustainable landscapes pillar of the U.S. Government's Global Climate Change initiative.

Supported under this agreement, the Partnership for Land Use Science (Forest-PLUS) program will help accelerate India's transition to a low carbon economy by taking REDD+ actions to scale.

USAID'S HISTORIC ENGAGEMENT IN THE FORESTRY SECTOR IN INDIA

USAID's historic engagement in the forestry sector in India was in the 1980s and early 1990s when it supported social forestry projects in Madhya Pradesh, Maharashtra, Gujarat, Rajasthan, Himachal Pradesh, and Uttar Pradesh. These projects aligned with the recommendation of the Government of India's National Commission on Agriculture (1976) that India's strategy on forestry development should focus on developing large-scale social forestry programs outside the legal forest reserves to meet the growing needs of rural population for forest products. The social forestry projects were aimed at increasing the production and supply of fuel wood, fodder, fruits and small timber; increasing rural income and employment, particularly opportunities for the poor and landless; afforestation of degraded areas and wasteland and reducing soil erosion; and strengthening forestry institutions. The total value of investment in forestry sector was around USD 95 million during this period.

¹ BRICS - Acronym for the economies of Brazil, Russia, India, China and South Africa combined.

REDD & REDD+: Key elements of the global endeavor to address climate change

REDD (Reducing Emissions from Deforestation and Forest Degradation) is a global initiative to create an incentive for developing countries to protect, better manage and save their forest resources, thus contributing to the global fight against climate change.

REDD+ goes beyond the two REDD actions and adds strategies to reduce emissions through:

- the role of conservation
- sustainable management of forests
- enhancement of forest carbon stocks

FORESTRY IN INDIA

Forests in India have been an integral part of the socio-economic and cultural life of its people. One of the megadiverse countries, India recognizes the role of forests in providing a wide range of economic, social, and environmental services.

Scientific forest management in India dates back to mid 1800s. India has comprehensive policy and legislative framework² for guiding forest conservation and management. The forest and tree cover in India has over the years stabilized; at present, it is at around 24% of the country's geographical area.

The forests are managed sustainably through the mechanism of working plans/schemes prepared by trained professional foresters. The forests are managed by forest departments of various state/union territory governments; the role of central government is to provide policy directions and guidelines through the Ministry of Environment & Forests. Various national level institutions³ play an important role in building capacity and providing research/technical support for forest management in the country.

India accords equal emphasis on economic development, social inclusion and environmental sustainability – the three critical components of sustainable development. With about 2.5% of the world's geographical and 1.8% of the forest area, India supports around 16% of the world's human population and 18% of domestic cattle population. The demand

and supply gap of various provisioning services from forests, particularly fuelwood, fodder, timber, non-timber forest products (NTFPs), among others, creates pressure and contributes to degradation of forests and ecosystems.

There are more than 300 million forest dependent people in India, including around 87 million tribals, deriving substantial part of their livelihood from forests. Forest-dependent livelihoods may get severely affected as a result of climate change.

India has played a significant role in the development of a comprehensive REDD+ approach at the international level. At home, India has initiated the National Mission for a Green India (GIM) under its National Action Plan on Climate Change (NAPCC). GIM aims at responding to climate change by a combination of adaptation and mitigation measures, which would help (1) enhance carbon sinks in sustainably managed forests and other ecosystems, (2) adaptation of vulnerable species/ ecosystems to the changing climate, and (3) adaptation of forest dependent communities.

² These include the Indian Forest Act, 1927; Wildlife (Protection) Act, 1972; Forest (Conservation) Act, 1980; National Forest Policy, 1988; and the more recently enacted Scheduled Tribes and Other Traditional Forest Dwelling Communities (Recognition of Forest Rights) Act, 2006.

³ These include most notably, Indira Gandhi National Forest Academy (IGNFA), Indian Council of Forestry Research & Education (ICFRE), Forest Survey of India (FSI), Indian Institute of Forest Management (IIFM) and Wildlife Institute of India (WII), among others.

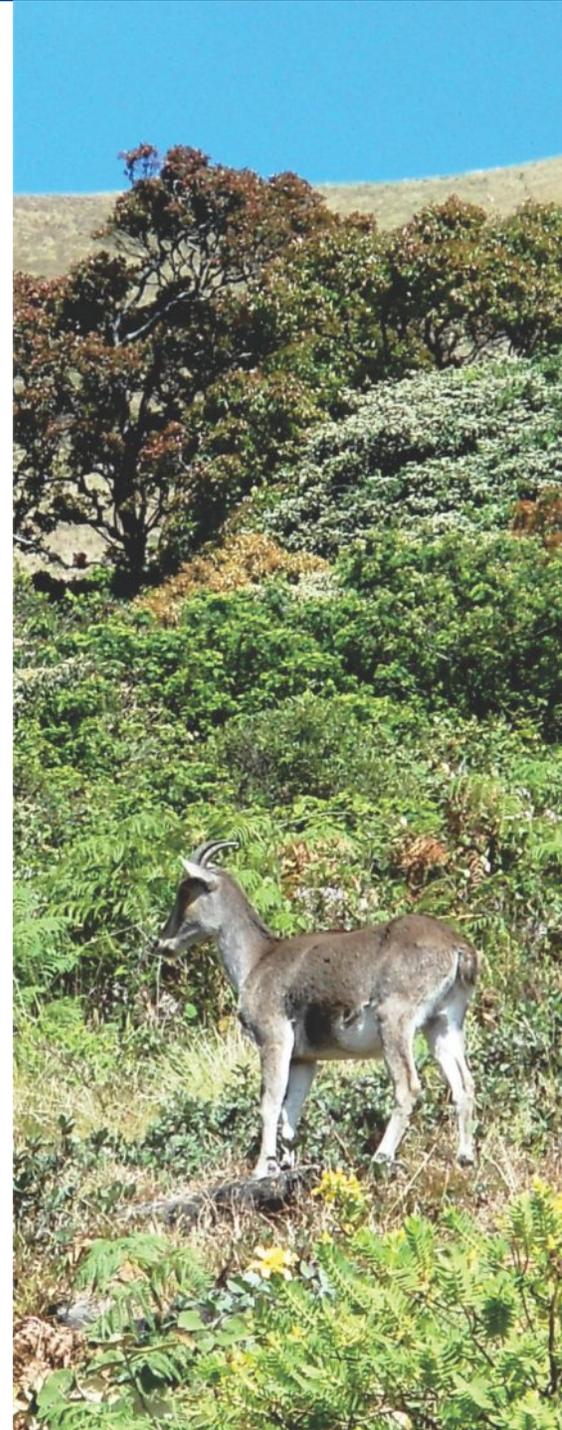


Photo Credit: Subhash Chandra@MoEF

Forest-PLUS PROGRAM

Working in close collaboration with the Government of India's Ministry of Environment and Forests, the Forest-PLUS Program will assist in strengthening capacity for REDD+ implementation in India. The Program will feed into the NAPCC and GIM. Over a period of five years, Forest-PLUS will assist in developing and deploying scientific tools and methods for improved ecosystem management and carbon sequestration, forest carbon inventory and reference baselines; designing modalities/programs for providing better incentives to forest-dependent communities for promoting REDD+ activities; and enhancing human and institutional capacity.

Component I focuses on U.S.-India collaborative scientific research and exchanges that explore methods and approaches to implement REDD+. This will be vital for India's own programs and will further demonstrate India's advances in science and technology to develop lessons that may be applied in other developing countries.

1.1 Develop tools, techniques and methods for better ecosystem management and increasing sequestration.

Developing silviculture tools and management techniques that promote carbon sequestration while, at the same time optimizing ecological (e.g., water filtration, conservation) and livelihood benefits. Emphasis would also be laid on grazing management and sustainable harvest of NTFPs.



Photo Credit: Subhash Chandra@MoEF

1.2 Develop improved methods to establish carbon inventory and reference baselines.

Methodologies for estimating carbon content of different forest types would be developed, including software models that convert remote sensing data into carbon estimates. Other important aspects include strengthening national greenhouse gas inventory data management system related to forests, developing protocols for community involvement in forest carbon inventories, and designing of data management systems and technologies that collate community based data and feed it into the national database.

1.3 Analyze social and economic incentives for REDD+ policy and practice.

While REDD+ and carbon markets may provide direct financial incentives, there are other important incentives related to local livelihoods that merit research. These incentives could include other forms of livelihood support such as improving the value chain for NTFPs, and increasing access to clean energy. These improvements would enable communities to maintain and increase forest carbon stocks by potentially reducing their dependence on forest subsistence activities, and demand for fuel wood.

Under Component 2, cost-effective, geographically relevant, and culturally appropriate methods and approaches will be piloted in the field at scales that lend the results and learning to replication at higher levels.

2.1 Establish Government and stakeholder dialogue and communication processes.

The program will work with MoEF to initiate interactive dialogues with stakeholders about climate change, and the types of research the Forest-PLUS program will be carrying out. The dialogues will generate feedback from the stakeholders that is expected to improve research design, deployment and application.

2.2 Engage stakeholders constructively in REDD+ implementation.

The program will work with various stakeholders to pilot methodologies and research results. Primary stakeholders include communities and local government. They may also include students and university professors involved in field testing research and evaluating results obtained in the field, as well as partnerships with the private sector.

2.3 Human and institutional capacity development and strengthening enabling environment.

The program will build the capacity of MoEF scientists and administrators at the national level, state-level forestry staff and members of village Joint Forest Management Committees and community level stakeholders to implement improved ecosystem management practices, carbon inventory, and set in place appropriate incentives.



Photo Credit: V.Dakshinamurthy@Forest-PLUS

Forest-PLUS is being implemented by a consortium of U.S. and Indian organizations.

Tetra Tech ARD will implement the Forest-PLUS program, partnering with other organizations from India and the U.S.

InsPIRE Network for Environment (India) will lead Forest-PLUS efforts in the area of institutional capacity development and capacity building for improved ecosystem management.

Iora Ecological Solutions (India) will assist with carbon estimations and testing the protocols and tools in the Forest-PLUS pilot landscapes.

Michigan State University (U.S.) will provide remote sensing and carbon quantification tools and technologies to Forest-PLUS, and assist in institutional capacity development.

Applied GeoSolutions (U.S.) will provide expert assistance in forest and carbon inventorying, carbon stock changes, and greenhouse gas inventory and data management.

Institute of International Education (U.S.) will provide support for Forest-PLUS study tours and exchanges.



Forest-PLUS implementation states: Himachal Pradesh, Karnataka, Madhya Pradesh, Sikkim



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