

GLOBAL CLIMATE CHANGE

MAY 2006



USAID support in Indonesia has proved to be a significant factor in promoting sustainable development by providing solutions for mitigating the effects of climate change in land use and coastal resources management. Recognizing that this proactive stance must be coupled with a reactive position to the effects already occurring, USAID is considerably helping Indonesia adapt to the changes it faces from climate change.

Background. Indonesia's unique island state geography, ecology, population growth dynamics, and economic development experience presents challenges and opportunities for sustainable and climate-friendly development. Although home to the richest biodiversity in the world and boasting the world's second largest area of rain forest after the Amazon Basin, Indonesia is losing roughly 2.4 million hectares per year of its remaining forests.¹ In addition, burgeoning economic growth is increasing demand for power by 16% per year. Interventions to conserve forest area and biodiversity may provide both carbon stock conservation and buffering against potential climate change impacts. In addition, the extensive coastline of the Indonesian archipelago necessitates addressing vulnerability to potential sea-level rise and other impacts upon marine resources. Finally, a shift away from reliance on forest/biomass resources for energy generation in a way that will minimize greenhouse gas (GHG) emissions will require the promotion of clean, efficient, and renewable energy sources. Roughly 38% of the country's total energy consumption comes from biofuels (e.g. wood, agricultural residues, and charcoal), and about 90% of rural households use biofuels for cooking and other activities.

Sector-Specific Climate Change Activities. *Land Use Activities.* USAID's Natural Resources Management (NRM) activities included a number of conservation programs. In 2004, in the Kutai Barat district (East Kalimantan), a timber company agreed to incorporate recommendations from The Nature Conservancy on High Conservation Value Forest areas and set aside nearly 20% of its concession area for conservation purposes. Timber companies in East Kalimantan and West Kalimantan also used the guidelines to obtain Forest Stewardship Council certification. In Central Java, forest communities worked to obtain certification for their forests and products. Additionally, commercial and habitat conservation programs were complemented by the USAID-funded World Education project in Kelay river watershed, a sub-district of Berau, which is a key area of globally important species. The project supported a number of activities which helped to relieve pressure on key habitat areas by reducing encroachment.

Coastal Resources Management. The Coastal Resources Management Project (CRMP) Part II focused on preservation and rehabilitation of coastal areas through legal reform, capacity building and integration of stakeholders. Its primary objectives included improved sustainable management, reduced encroachment to and increased area of protected areas, and improved

¹Sukino Harisumarto, "Indonesia forests face extinction," The Washington Times.

USAID's partners in climate change activities in Indonesia include*:

- World Education
- International Resources Group (IRG)
- The Nature Conservancy (TNC)

* Because partners change as new activities arise, this list of partners is not comprehensive.

livelihoods through activities that reduce pressure on mangrove and coral resources. Among its accomplishments in 2005 were:

- More than 26 pilot villages participating in community-based management of resources contributed a total of 500 hectares of coral reefs and 400 hectares of protected forests, supported by completed village management plans.
- Trainings on coastal resources management, improved mangrove management and livelihood activities which prepared local stakeholders for developing a District-wide marine protection area and increased their livelihoods (crab fattening activities led to 500 kg of crabs per week sold by each group) resulting in a renewed commitment to preserving the mangrove trees and environmental services.
- Bay Management Plans were created in Apang and Agar Bays and the project collaborated with partners and NGOs to develop the Berau Marine Protected Area that was submitted as part of Indonesia's nomination to become a World Heritage Marine Site.
- The Asian Development Bank contributed \$10 million to the Indonesian government to support replication of coastal management activities in 15 provinces.
- Coastal Management Boards were established to facilitate multi-sectoral policy and activities, including establishing new rules and regulations, helping communities to develop networks of community marine protected areas and conducting coastal management best practices.

Leveraged Funding. Through its many activities, USAID/Indonesia has been able to leverage a significant amount of money from a variety of sources. For example, in 2004, the NRM III project leveraged an additional \$2.25 million in co-funded activities, equal to more than half of USAID's direct investment. In addition, the models and approaches developed by USAID have influenced the design of another \$118 million in new project investments by non-US government donors. This investment will contribute to forest preservation, capacity development, marine protected area management, and decentralized multi-stakeholder natural resources management.

The CRMP II project leveraged funds for various project activities, including \$144,000 by UNOCAL Petroleum to enable civil society groups to conduct environmental awareness and extension activities throughout the Balikpapan Bay watershed, an area heavily lined with mangroves. Additionally, \$137,000 was committed by the Balikpapan Bay Management Council and the City of Balikpapan for bay management activities and \$50,000 was committed by the Ministry of Marine Affairs to support local coastal management activities under the matched funding of the Sea Partnership Program.

For more information on Indonesia, visit
USAID/Indonesia's Mission Web site at:

<http://www.usaid.gov/id/>