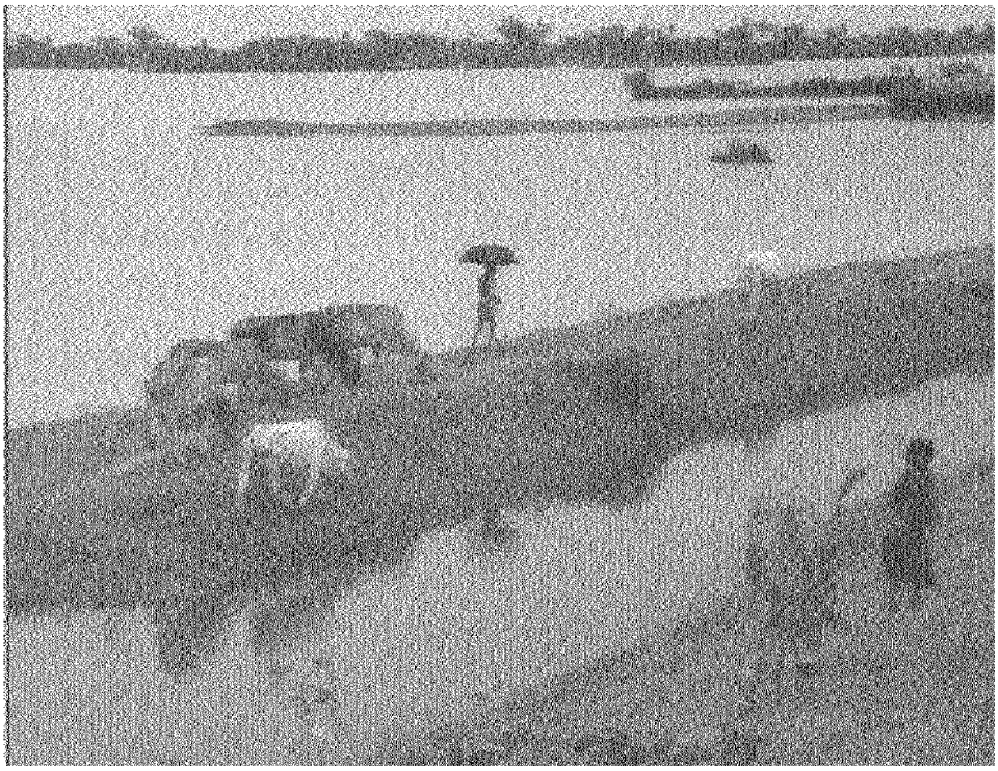


USAID/OFDA staff assessed the impact of floods in Orissa State, India (photo by Greg Austreng, USAID/OFDA).

INDIA

FLOODS

During the spring and summer of 2001, heavy rains caused significant flooding in Orissa State, particularly in the districts of Kendrapara, Jajpur, Puri, Cuttack, and Khorda, which were just beginning to recover from the severe cyclone that occurred in 1999. According to the Government of India (GOI), the floods affected more than 8.7 million people and killed approximately 100 people in 20 of Orissa State's 30 districts. The total number of displaced or isolated residents was estimated at two million at the height of the flooding. The floodwaters also killed more than 14,000 head of cattle, damaged or destroyed more than 240,000 houses, submerged an estimated 891,000 hectares of cropland, and disrupted transportation and telecommunication networks.

USAID/OFDA's regional advisor for South Asia and a USAID/OFDA program officer conducted flood assessments in Orissa State in July. Based on the findings of the USAID/OFDA assessments, U.S. Chargé d'Affaires Albert A.Thibault declared a disaster on July 20. USAID/OFDA provided $25,000 through USAID/India to the Prime Minister's National Disaster Relief Fund to help meet the emergency needs of those most severely affected by the flooding. On August 1, USAID/OFDA provided $500,075 to CARE and $480,480 to CRS for three-month programs aimed at distributing emergency food, shelter materials, and seeds to approximately 70,000 beneficiary families.

Continued heavy rains and the release of water from reservoirs in Nepal caused rivers in Bihar and Uttar Pradesh states to overflow their banks in late summer and early fall 2001. According to unofficial government estimates, the floods resulted in nearly 200 deaths, approximately 5.5 million people affected in more than 5,000 villages, and the loss of 360,000 hectares of crops in the western districts of Bihar and the eastern districts of Uttar Pradesh.

On September 18, U.S. Ambassador Robert D. Blackwill issued a second disaster declaration for the effects of the flooding in Bihar and Uttar Pradesh. USAID/OFDA provided $25,000 through USAID/India to the Prime Minister's National Disaster Relief Fund to meet the emergency needs of flood victims. In addition, USAID/OFDA provided $53,864 to CRS to meet the immediate needs of 4,500 affected families.

The Indian Red Cross and CARE/India utilized USAID/OFDA-provided Zodiac boats and water purification units, donated in response to prior disasters in India, to assist in search and rescue efforts and the provision of potable water.

USAID/OFDA Assistance $1,084,419

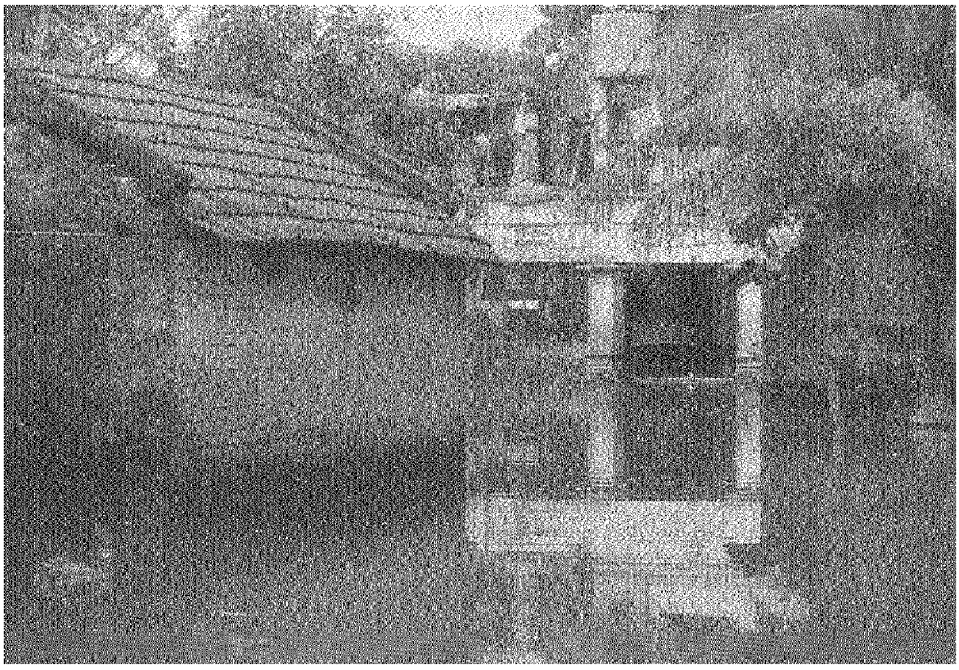
Mitigating Hydro-Meteorological Events in Asia

Hydro-meteorological events, such as floods and droughts, account for the greatest number of natural disasters worldwide, and the Asia region suffers more frequently and with the greatest impacts. Flood- and drought-induced disasters, including landslides, mudslides, disease outbreaks, food shortages, and forest fires, are increasingly common. Between FY 1990 and FY 2001, 65% of all USAID/OFDA's disaster responses in Asia were to hydro-meteorological events. According to USAID/OFDA's historical data, floods, human-caused complex emergencies, and droughts were the three most numerous types of disasters occurring worldwide during the last 12 years.

The effects of hydro-meteorological disasters are becoming more severe because of rapidly changing socio-economic conditions (rapid population growth with an increasing number of inhabitants residing in vulnerable areas), concomitant environmental degradation (global warming, deforestation, and desertification) and climatic variability. In comparison to other types of disasters, hydro-meteorological events result in the second greatest number of deaths and affect the largest number of people worldwide. The severity of hydro-meteorological disasters has increased the cost of responding to these events for national and local governments and donors who fund emergency assistance and rehabilitation activities. In FY 1990, USAID/OFDA spent $1.8 million on hydro-meteorological disaster responses while in FY 2001 this increased to more than $21 million.

Given the frequency and impact of hydro-meteorological disasters, USAID/OFDA funds mitigation, prevention, and preparedness programs in Asia to reduce the vulnerability of populations by lessening the loss of life and averting any economic disruption. The projects are implemented in areas where hydro-meteorological disasters occur with the highest frequency, affect the greatest number of people, and have the most severe economic impact.

USAID/OFDA implements some hydro-meteorological mitigation projects in Asia through the Asian Disaster Preparedness Center (ADPC) in Bangkok, Thailand. For example, ADPC manages the USAID/OFDA-supported Extreme Climate Events program. This regional initiative is improving the understanding of the impacts of extreme climate events such as El Niño and La Niña on societies and the environment, focusing on Indonesia, the Philippines, and Vietnam. In addition, the ADPC concentrates on reducing the disaster impacts of climate events through effective application of climate forecast information.



Hydro-meterological disasters are frequent in the Asia region (photo by Golam Kabir, USAID/Bangladesh).

USAID/OFDA is also funding a three-year, $1.2 million project in Bangladesh through the University of Colorado's Program in Atmospheric and Oceanic Sciences. The project is developing a comprehensive flood-forecasting technology for the country, which includes weather and climatological fore-