



Asia Flood Network— A Flood Mitigation and Preparedness Program in Asia

Background

Asia is the most vulnerable continent to hydrometeorological disasters (Figure 1). During the last decade, the U.S. Agency for International Development, Office of U.S. Foreign Disaster Assistance (OFDA) has responded to 92 hydrometeorological disasters in Asia (about 66 percent of OFDA's total disaster

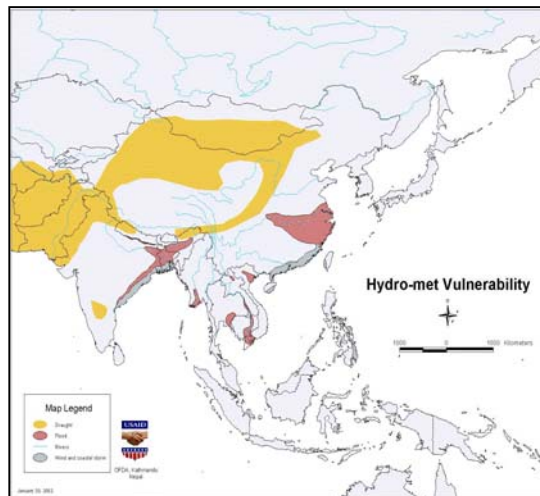


Figure 1 Vulnerability to Hydrometeorological hazards in Asia.

risk. In cooperation with the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS), OFDA has been providing 24-hour satellite estimates and short-term forecasts of rainfall over the Mekong River basin and surrounding areas to the Mekong River Commission (MRC) since July 2001 (Figures 2 and 3). MRC uses rainfall information to forecast Mekong River levels during the annual flood season. The support for rainfall estimates and forecasts lead to implementing an OFDA-sponsored program in 2003 called Asia Flood Mitigation and Preparedness, or Asia Flood Network (AFN). This program is envisioned to identify and fill gaps in end-to-end flood forecasting and early warning, while complimenting current OFDA-funded early warning activities in the region.

response in Asia). High population density, low arable land, rapidly growing urban areas, and environmental degradation lead to increased vulnerability to extreme hydrometeorological events, such as floods, droughts, and typhoons. Floods are among the most devastating natural disasters in Asia and OFDA has provided support for programs to mitigate the adverse impacts of floods through strengthening flood forecasting and warning for populations at risk.



Figure 2 Rainfall estimate, 13 October, 2002

Asia Flood Network

The Asia Flood Network will strengthen the capacity of national hydrometeorological institutions in climate, weather, and hydrological forecasting while directly involving communities at risk in reducing vulnerability to hydrometeorological hazards. In cooperation with partners in Asia, AFN will be jointly implemented by OFDA, USGS, NOAA, and other USG partners to:

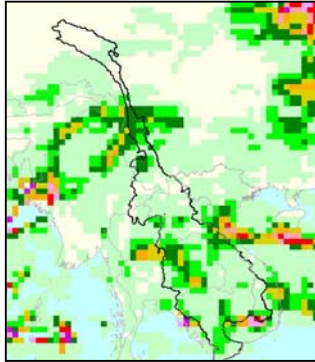


Figure 3 Rainfall forecast, 14 October, 2002

- Enhance rainfall estimations and forecasts for flood, river, and flash-flood forecasting,
- Advance hydrologic and hydraulic modeling of watershed and river deltas, where hydrometeorological data are scarce,
- Encourage hydrometeorological data and information sharing, which is vital in implementation of the program,
- Strengthen dissemination of forecasts and warnings to users and population at risk, and
- Strengthen national and regional capacity in hydrometeorological forecast and warnings.

Start-up activities of Asia Flood Network in 2003 will focus primarily on the Mekong River Basin where floods and flash floods during the last three years caused high loss of life and property, displacement of millions of people, and disruption of social and economic activities in the riparian counties. There is a strong international support for strengthening forecasting and early warning by Thailand, Laos, Cambodia, and Vietnam. Other potential implementations of the Asia Flood Network include the Ganges-Brahmaputra-Megna and other river Basins, where vulnerability to flooding is extremely high.

Through OFDA, USGS, NOAA, and other USG technical cooperation over the next few years, there is an opportunity to greatly expand the sharing of flood information in the region and thereby greatly increase the flood forecasting and warning capacity of riparian states. Technical cooperation and training would strengthen each of the national forecasting agencies and there will be substantial benefits to regional cooperation and enhanced disaster preparedness in Asia.

For more information:

OFDA

A. Sezin Tokar, stokar@usaid.gov, 202 712-4033

NOAA

Curtis B. Barrett, curt.barrett@noaa.gov, 301 713-1784

USGS

James P. Verdin, verdin@usgs.gov, 605 594-6018

