

# Strengthening weather and climate services for improved preparedness for hydro-meteorological hazards

## Project Facts

October 2015 – December 2017



The increasing intensity and frequency of climate-induced natural hazards pose communities across South and Southeast Asia at risk of cyclones, flooding, drought and other hydro-meteorological disasters. The people and infrastructure of Bangladesh, Myanmar, and Vietnam are tested by strong winds, cyclones, heavy rain, and droughts, as well as riverine and flash flooding. They are also exposed to a number of hydro-meteorological hazards, seriously affecting coastal areas and low-lying river deltas.

Asian Disaster Preparedness Center, with support from the Royal Norwegian Ministry of Foreign Affairs, collaborates with the hydro-meteorological departments of the governments of Bangladesh, Myanmar, and Vietnam to help them provide services to national, sub-national and local organizations and at-risk communities to minimize risks caused by hydro-meteorological hazards.

Since the program was initiated in 2009, ADPC and the Norwegian Meteorological Institute (MET-Norway) have built the knowledge and skills of the local officials in accurate weather and climate predicting that can be used to strengthen early warning systems at all levels. ADPC and MET-Norway have provided officials hands-on training on weather and climate forecasting to strengthen the countries' daily weather and climate forecast services and help the officials ensure a higher degree of accuracy of the forecasts. The hydro-meteorological services in these countries are now equipped to utilize data visualization techniques to overlay several information products into a single interface, allowing them to verify accuracy of products, monitor spatial distribution and ascertain information on potential impacts of hydro-meteorological disasters on a daily basis. The web portal introduced at the



## Focus countries

Bangladesh, Myanmar and Vietnam

## Objectives

- Increasing the lead-time of cyclone forecasts and reducing errors in forecasts
- Accurately identifying coastal inundation areas during storm surge; areas prone to heavy rainfall during the monsoon season and cyclones; and areas prone to drought
- Ensuring sufficient lead-time for heavy rainfall and drought warnings to enhance proper preparedness
- Institutionalizing climate services' role in providing accurate data and information to facilitate planning in different sectors

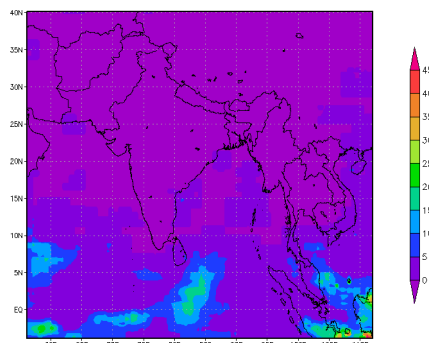


### Asian Disaster Preparedness Center

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Department of Meteorology and Hydrology (DMH) in Myanmar has been providing sector-specific stakeholders and the general public a user-friendly interface to access meteorological and climatological data and information. Key officials from the hydro-meteorological services have also been seconded to MET-Norway in Oslo and ADPC in Bangkok, resulting in their increased capacities to utilize modern applications for weather and climate forecasting.

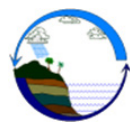
ADPC has found that there is still a need to further build the human and technical capacity of the hydro-meteorological services, and during the third phase of the program in 2015–2017, ADPC will continue to strengthen the services' capacity in daily and seasonal weather forecasting, climate services development, and effective utilization of weather and climate information to prepare for and mitigate the impact of the increasing hydro-meteorological disasters.



## Project activities

- Improving the countries' daily and seasonal weather forecasting capacity to strengthen end-to-end early warning systems
- Making climate services available to facilitate sector-specific planning and sustainable development
- Facilitating the effective utilization of weather and climate information for coastal-ecosystem resilience

## Project partners



Department of Meteorology and Hydrology (DMH), Myanmar  
 Bangladesh Meteorological Department (BMD)  
 National Hydro-Meteorological Service (NHMS), Vietnam  
 Norwegian Meteorological Institute (MET-Norway) (technical support)  
 The Royal Norwegian Ministry of Foreign Affairs (financial support)



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## About ADPC

As the most hazard-prone region in the world, Asia-Pacific must proactively manage its disaster risk. For nearly 30 years, Asian Disaster Preparedness Center (ADPC) has been contributing in making Asia-Pacific safer by strengthening disaster resilience at all levels.

ADPC deploys disaster risk management information and systems to reduce local, national and regional risk across Asia-Pacific. Its portfolio focuses on disaster risk management capacity building, improving disaster risk management for cities and climate change, mainstreaming DRM into national and local development, improving disaster risk management systems and undertaking disaster risk assessments. To achieve its aims in disaster risk reduction, ADPC works closely with local, national and regional governments, governmental and non-governmental organizations, donors and development partners.



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