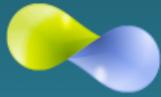


Water Information Systems



Joint Cooperation Programme

Water Information systems



Drought Monitoring and Forecasting System

Indonesia is a tropical country and most parts of it receive abundant annual rainfall, in excess of 1800 mm per year. In many areas, however, rainfall is highly seasonal, and sometimes erratic. In such regions, prolonged water deficits lasting several months occasionally cause failures of water supply systems and of rain fed and irrigated crops, and frequently contribute to enhanced fire risk in forests and peatland areas. Improved monitoring and understanding of dry season rainfall patterns, in time and space, is therefore important for the country to be prepared for drought-related events such as water shortages, crop failures and fires.

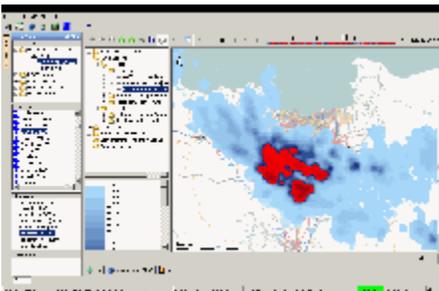
There is no comprehensive drought monitoring and forecasting system in Indonesia. Also no up to date and accurate maps of drought frequency and severity are currently available that could help create an understanding of distribution of drought vulnerabilities. The availability and understanding of such maps and understanding directly benefits to many aspects of water and land management in Indonesia among them drought preparedness and climate proofing of agricultural and water supply systems. Also the planning outside of drought-prone zones of activities that are most vulnerable to drought.

Flood Forecasting System

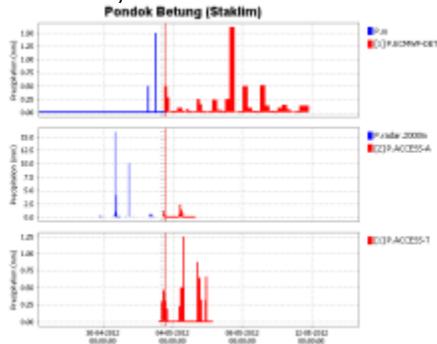
Floods represent a major hazard in Indonesia and regularly cause loss of life and property. Flood protection infrastructure and spatial planning can in principle largely mitigate flooding but there is always a residual risk of flooding. Non-structural measures like flood warning and management can help society to cope with the remaining risk. Flood forecasting can improve flood warning and management services by providing more accurate and timely information. This part of the JCP will focus on capacity development in the field of flood forecasting and warning at BMKG and PusAir.

The approach taken in this component will be based on parallel tracks of formal training and pilot application development. Working jointly on the development of pre-operational systems is seen as the most effective way to develop capacity in the field of flood forecasting and operational water management within BMKG and PusAir.

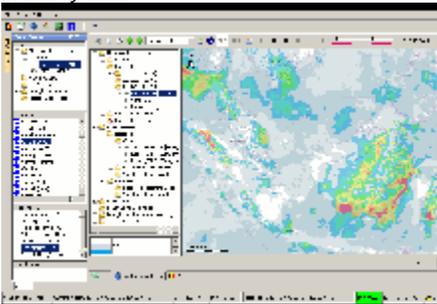
- >> [Water Resources Management](#)
- >> [Weather and Climate](#)
- >> [Lowland Data Management](#)
- >> [Water Information Systems](#)



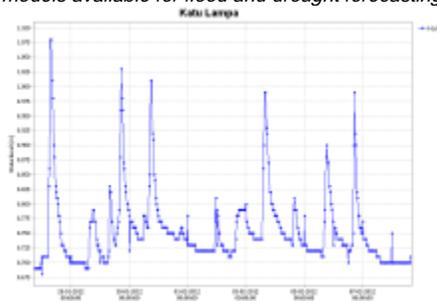
Data from available precipitation radar stations can be used as input



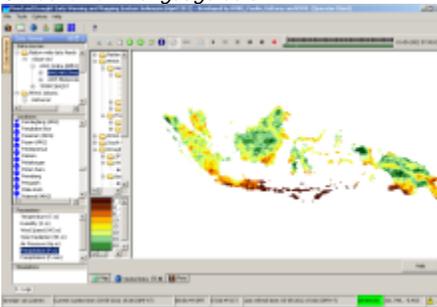
All available precipitation sources (both meteorological stations and numeric weather models) in one system



Latest weather forecast from numerical weather models available for flood and drought forecasting



Collection of river gauge data



The actual drought situation



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