

## Trends and cycles in the water and sediment balance of Jakarta

### BACKGROUND

In recent years the lowland cities of Indonesia in general, and Jakarta in particular, have experienced an increase in the frequency and intensity of both coastal and riverine flood events. Moreover, the damage caused by those floods, in terms of damage to livelihoods and the economy, appears to be increasing. Since 2007, ITB Bandung and IVM-VU have carried out collaborative research and dissemination activities related to the assessment of mainland controls on coastal and small island water quality. However, there still remains a lack of effort in quantifying the effects of various environmental trends and cycles on the riverine water and sediment budget, assessing the impacts of proposed policy measures, and promoting interaction between academic institutes and policy makers.

### OBJECTIVES

The research is intended to provide scientifically relevant methods and data, as well as findings of direct relevance for policy makers that will have a strong emphasis on capacity building and knowledge transfer between, and outside, all of the involved research institutions. The primary objective of the research is to quantify and compare the impacts of land use change, climate change and variability, and policy measures, on the water and sediment budget of the watersheds of Jakarta, and to assess the effectiveness of a recently introduced case study spatial planning policy, namely *Perpres 54/2008*.



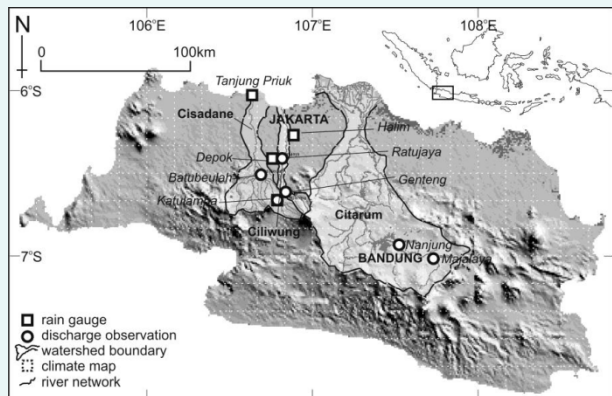
### CONSORTIUM AND FUNDING

This project is funded by Koninklijke Nederlandse Akademie van Wetenschappen (KNAW)

([www.knaw.nl](http://www.knaw.nl))

Partners involved in the consortium are:

- Institute for Environmental Studies (IVM-VU), Amsterdam, Netherlands
- Institut Teknologi Bandung (ITB), Indonesia
- Universitas Gadjah Mada, Yogyakarta, Indonesia
- Water Research and Development Department, Ministry of Public Work, Indonesia



### SELECTED OUTPUT TO DATE

Poerbandono, Ward, P.J., Julian, M.M. (2009). Set up and calibration of a spatial tool for simulating latest decades' flow discharges of the western Java: Preliminary Results and Assessments. *ITB Journal of Engineering Science*, 41B(1), 50-64.

International symposium on flood risk in Jakarta. Location: ITB Bandung, Indonesia

### FURTHER INFORMATION

This project runs from April 2010 to April 2011, and is co-ordinated by ITB Bandung and IVM, VU.

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