

Supporting Crop Loss Insurance Policy of Indonesia through Rice Yield Modelling and Forecasting

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The Government of Indonesia has decided on a crop insurance policy to assist Indonesia's farmers and to boost food security. To support the Indonesian government, the G4INDO project (www.g4indo.org) is developing/constructing an integrated platform implemented in the Delft-FEWS forecasting system (Werner et al., 2013). The integrated platform brings together remote sensed data (both visible and radar) and hydrologic, crop and reservoir modelling and forecasting to improve the modelling and forecasting of rice yield. The hydrological model (wflow_sbm), crop model (wflow_lintul) and reservoir models (RTC-Tools) are coupled on time stepping basis in the OpenStreams framework (see <https://github.com/openstreams/wflow>) and deployed in the integrated platform to support seasonal forecasting of water availability and crop yield. First we will show the general idea about the G4INDO project, the integrated platform (including Sentinel 1 & 2 data) followed by first (reforecast) results of the coupled models for predicting water availability and crop yield in the Brantas catchment in Java, Indonesia.

Werner, M., Schellekens, J., Gijsbers, P., Van Dijk, M., Van den Akker, O. and Heynert K, 2013. The Delft-FEWS flow forecasting system, Environmental Modelling & Software; 40:65-77. DOI: 10.1016/j.envsoft.2012.07.010.