



# Geodata for upgrading smallholders' farming systems in Indonesia (G4INDO)

**Geodata for Agriculture and Water (G4AW) improves food security in developing countries by using satellite data. Netherlands Space Office (NSO) is executing this programme, commissioned by the Dutch Ministry of Foreign Affairs.**

The Indonesian Government has decided to develop a crop insurance policy to assist farmers and to boost food security. The G4INDO project provides technical assistance in assessing crop yield anomalies at plot scale. The project will provide crop insurance and third crop feasibility advice to 200,000 farmers. Processed satellite data such as radar and optical earth observations provide the necessary information. This is combined with weather monitoring, analysis and forecasting, crop models, and hydrological models.

The Indonesian Ministry of Agriculture and the insurance companies can use this integrated information to assess claims from service contract holders experiencing harvest losses. The

project also supports the cropping calendar of the Ministry of Agriculture, by advising whether a third rice crop can be expected to receive sufficient rain.

## **Target user group**

G4INDO is aimed at smallholder rice farmers on Java, Indonesia. These farmers typically have land holdings smaller than 2 hectares, many of them have even less than 1 hectare. Land ownership is also highly fragmented and parts of the fields are cultivated on a sharecropping basis.

## **Business proposition**

G4INDO services will become self-financing after three years, when the number of insurance takers will allow for enough revenue to surpass the running cost. Before that, the number of clients will be too low to support a sustainable service. The set-up of the G4INDO service also requires an investment in technology and transfer of knowledge.

# The G4INDO project will provide crop insurance and third crop feasibility advice to 200,000 farmers



G4AW's subsidy is needed to bridge the 3-year gap between the start of the project and the moment the service will become self-financing. The project is designed for services to be expanded to other regions during the project and to be continued after the termination of the G4INDO project.

## Partnership

**G4INDO's partnership consists of 8 organisations, each with their own expertise:**

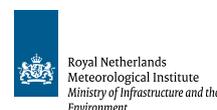
- Radar and optical remote sensing technology (Wageningen University, SarVision and Terrasphere, Netherlands)
- Royal Netherlands Meteorological Institute (KNMI) (Netherlands)
- Rural conditions in Java, hydrology, crop growth modelling (Wageningen Environmental Research (Alterra), including PRI, and Deltares, Netherlands)
- Small holder insurance systems (Syngenta Foundation for Sustainable Agriculture, Switzerland; NDI, Great Britain)

## Contact

**Lead Organisation:** Alterra, Wageningen UR  
Jan Verhagen,  
jan.verhagen@wur.nl

**NSO Project Advisor:** Joost van Uum  
j.vanuuum@spaceoffice.nl

E g4aw@spaceoffice.nl  
I g4aw.spaceoffice.nl



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