

## LARGE-SCALE EXPLOITATION OF SATELLITE DATA IN SUPPORT OF INTERNATIONAL DEVELOPMENT

### → AGRICULTURAL PRODUCTION MAPPING AND MONITORING SERVICE

Satellite Earth Observation (EO) is a powerful technique for continuously assessing the status of agricultural production on a wide range of spatial and temporal scales. It provides historical to current global data and can rapidly reveal where change has happened in a consistent and repeatable manner.

Information from Earth Observation is therefore very well suited to timely information on cropland distribution and status at various scales.

The impact of project interventions can be assessed via quantitative spatial crop distribution and productivity indicators, assisting the final programme or project evaluation.

#### DESCRIPTION

This service provides timely information on cropland distribution and status at various scales

#### USE

- › Agricultural census and crop statistics
- › Support sound spatial planning at a landscape scale
- › Screen for finance intervention planning
- › Assess the impact of program interventions
- › Assess crop loss and damage due to natural hazards
- › Assess the impact of value chains and agricultural commodities expansion on the environment
- › Monitoring of allocation of land, titling and concessions
- › Monitor adherence to agricultural land titling and associated regulations

#### INPUT PRODUCTS

- › Cultivated area and crop distribution
- › Crop type, crop type area and distribution
- › Cropping intensity (number of times a crop is planted per year in a given agricultural area)
- › Irrigated or rainfed agriculture
- › Pasture area and distribution
- › Crop status: start, peak and end (harvest) of season dates, including management (ploughing etc)
- › Crop productivity (Leaf Area Index, Biomass)

#### SPATIAL RESOLUTION AND COVERAGE

- › Local/national (10-30m) and regional (250m) scale

#### BENEFITS

Improved strategy and decision making:

- › Prioritize actions
- › Select and upscale successful practices and interventions
- › Improved understanding of the context of crop production and performance at the landscape/ national scale
- › Monitor activities more effectively and efficiently

#### DELIVERY FORMAT

Depending on user needs, e.g.:

- › Vector and raster formats
- › Through a web portal
- › Statistics in tables and/or graphs

#### FREQUENCY

- › Single date for selected baseline year(s)
- › Up to near real-time (daily, weekly, monthly) for monitoring change at large scale

