

# EO services contributing to SDGs

## Small-holder crop characterization and mapping



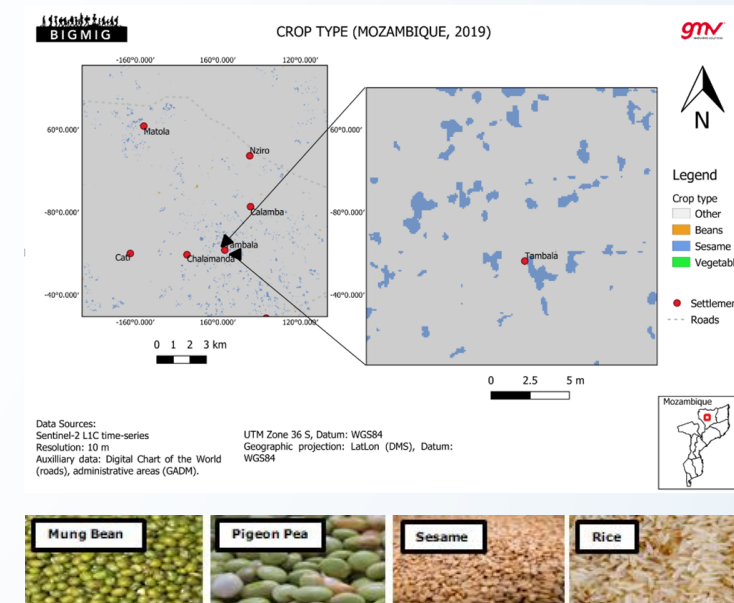
- User: NGO Ayuda en Acción ([www.ayudaenaccion.org](http://www.ayudaenaccion.org)) with focus on Development
- **Challenge/Needs:**
  - Support NGO's Agricultural Transformation programme for smallholders in Cabo Delgado, Northern Mozambique.
  - Scaling of current NGO operations from 15,000 to 50,000 fields.
- **Initiative:** BIGMIG is the initiative framing this service. BIGMIG aims to support with different EO services the work of the international Aid and Development Community
- **Results:** smallholders farms acreage determination and assessed productivity. In-season nowcasting of crop growth for harvest and market planning. Monitoring of year on year changes in agricultural practices.
  - Among the main difficulties faced:
    - Mostly small-scale field parcels (majority < 1 ha).
    - Extensive area to survey, difficult to access.
    - Sparse distribution, irregular geometries.
    - Clouds- Context not fit for visual interpretation. GMV approach focused on Convolutional LSTMs for EO.

Service Provider: GMV (<https://gmv.com/en-es/sectors/space>)

References link

Target 2.3: By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

Ind 2.3.1 Volume of production per labor unit



Intermingled beans, sesame and vegetables in small scale farms of Cabo Delgado, Mozambique. Crop identification used Sentinel 2 data and ground data. Approach included remote sensing and machine learning