

SECTORAL INFORMATION SERVICE GLOBAL AGRICULTURE CONTRACT (CRUCIAL)

PROJECT OVERVIEW

Telespazio UK is supporting climate change adaptation and climate resilience through the Global Agriculture Sectoral Information System (SIS) contract, led by Wageningen Environmental Research, which was one of the key SIS systems developed under the Copernicus Climate Change Service (C3S) programme.



The Global Agriculture SIS has developed climate services in support of decision-making in the agriculture sector. It does so in a process of co-creation with partners representing international crop research, international agricultural policy development and commercial agricultural consultancy services. These include International Maize and Wheat Improvement Center (CIMMYT, Mexico), GrolIntelligence (USA), Royal Dutch Meteorological Institute (Koninklijk Nederlands Meteorologisch Instituut, KNMI, Netherlands), Telespazio

UK (UK) and Deltares (Netherlands). Three categories of data products have been produced:

- › Contemporary and historic climate data for downstream further analysis and forcing of agricultural impact models, both gridded and location specific. We developed a version of ERA5 with a set of indicators specifically relevant for use in agricultural studies, aggregated to daily timescales, but downscaled to a higher spatial resolution (AgERA5).
- › Contemporary and future climate indicators and statistics relevant for climate change impact studies for agriculture, tailored using crop-specific parameters (e.g. thermal requirements). These are based on bias-adjusted projections from a representative subset of the CMIP5 ensemble.
- › Contemporary climate-enhanced, Earth Observation-based indicators of crop productivity (harvest index), crop development and evapotranspiration. Data has been produced for each of four crops (wheat, maize, soybean and rice) for all areas where each is dominant.

Telespazio UK, as a member of the consortium, has been in charge of developing a set of operational services to provide high-impact climate information to the agricultural and food sector.