

## → E04SD – EARTH OBSERVATION FOR SUSTAINABLE DEVELOPMENT

### Climate Resilience – E04SD CR

While there is not only a scientific consensus on the reality of climate change, climate change is also one of the most important societal challenges humanity is currently facing. Its impacts on socio-economic systems and vulnerable populations put increasing pressure on the livelihoods of developing countries and threaten implementation of the majority of the 17 United Nations (UN) Sustainable Development Goals.

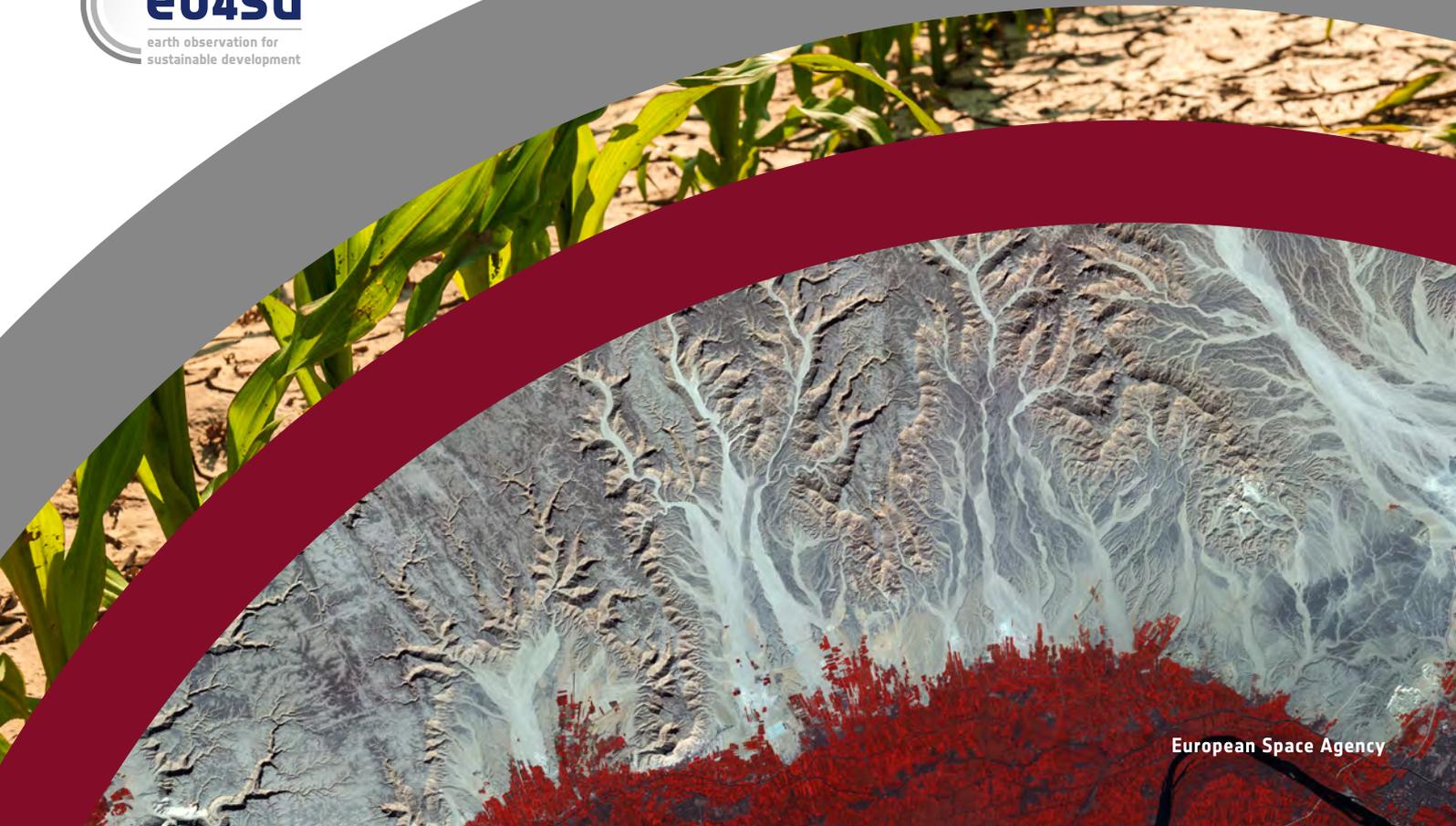
The links between development and climate change are clear and need to be addressed. Many national governments are looking to adapt to the impacts of climate change in an effort to improve the resilience of livelihoods and production systems to climate variability and related risks. Climate resilience has emerged as a key concept for policy and programme development and is defined by the Intergovernmental Panel on Climate Change (IPCC) as the ability to anticipate, absorb, accommodate, or recover from climate change in a timely and efficient manner.

The ESA E04SD Climate Resilience project aims to provide insight about the real potentialities of EO in support of climate resilient decision-making at regional and national scales. In collaboration with key IFIs, the project will develop an EO-based integrated climate screening and risk management approach to help manage

the risks and capitalise on the opportunities related to both climate adaptation and climate mitigation. The solution shall provide a quick and easy assessment of climate anomalies and rapid calculation of climate risk indicators, their historical evolution and associated extreme events.

The project addresses the following activities:

- Extensive stakeholder engagement to identify and define user needs;
- Provision of an EO-based data service with specific applications for climate resilience management (user-friendly front-end system, named ADAM, for exploring, plotting and analysing a large range of climate-related global or on-demand area specific products);
- Strategic planning and partnerships with relevant initiatives and programmes;
- Capacity building activities concerning the use of EO-based information for climate resilient decision-making (e.g. training courses, e-learning platform, training material, etc.).



## MAIN PARTNERS

- World Bank (WB)
- Asian Development Bank (ADB)
- International Fund for Agricultural Development (IFAD)
- African Risk Capacity (ARC)
- International Finance Corporation (IFC)
- Inter-American Development Bank (IADB)

## MAIN THEMATIC COMPONENTS AND EO-BASED INFORMATION

- › **Climate indicators (observations and climate projections)**  
E.g. droughts, air temperature, precipitation, landslides, forest cover, floods, etc.
- › **Socio-economic indicators**  
E.g. poor population, population demography, infant mortality rate, etc.
- › **EO-based services derived from indicators**  
E.g. extreme events, index-based insurance, sustainable energy production, ecosystem service value, data innovation, data market place, etc.



## PRELIMINARY LIST OF CANDIDATE REGIONS

- **Central America and Caribbean**
- **East Africa**
- **West Africa**
- **Southeast Asia**
- **South Asia**

Specific countries will be selected in partnership with IFIs by June 2019.

## MAIN DEVELOPMENT PROGRAMS AND INITIATIVES

- › Climate Investment Funds (CIF)
- › Climate Technology Programme (CTP)
- › The Green Climate Fund (GCF)
- › The Global Environment Facility (GEF)
- › Global Framework for Climate Services (GFCS)
- › Global Facility for Disaster Reduction and Recovery (GFDRR)
- › Global Monitoring for Environment and Security (GMES) & Africa Support Programme
- › Oasis Hub
- › Other initiatives in the Asia/Africa/LAC Region

