

→ E04SD – EARTH OBSERVATION FOR SUSTAINABLE DEVELOPMENT

Agriculture and Rural Development

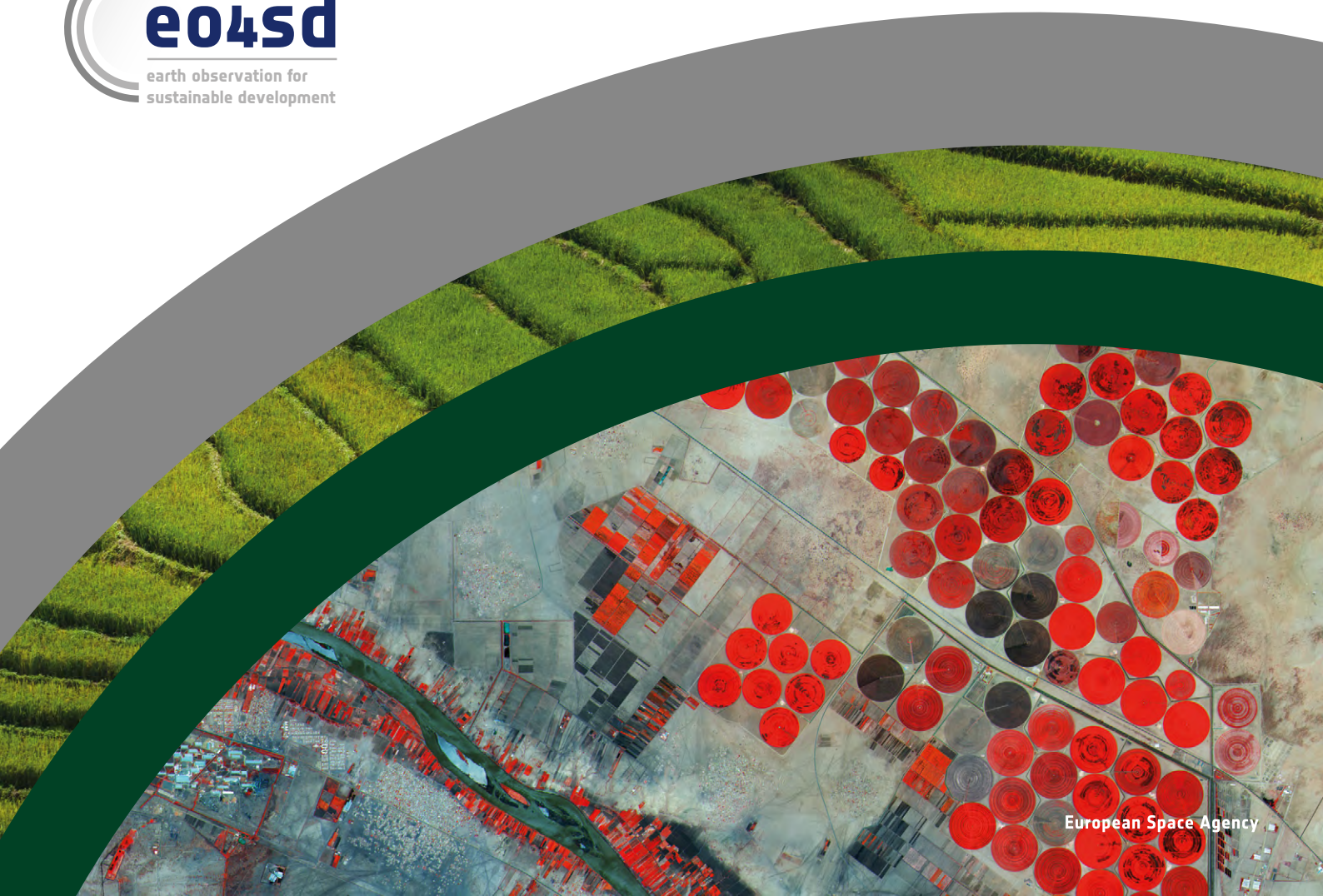
Satellite Earth Observation (EO) technology has major potential to inform and facilitate international development work in a globally consistent manner. Since 2008, the **European Space Agency** has worked closely together with the International Financing Institutions (IFIs) and their client countries to harness the benefits of EO in their operations and resources management.

E04SD – Earth Observation for Sustainable Development – is a new ESA initiative which aims to achieve a step increase in the uptake of satellite-based environmental information in the IFIs regional and global programs. It will follow a systematic, user-driven approach in order to meet longer-term, strategic geospatial information needs in the individual developing countries, as well as international and regional development organizations.

Although a wide range of issues have been identified where EO can have impact, the E04SD initiative will begin by addressing three top-priority thematic areas:

- **Urban Development**
- **Agriculture and Rural Development**
- **Water Resources Management**

The activities will be implemented in the 2016–2018 timeframe, with Phase I (2016) dedicated to the stakeholders' engagement and requirements consolidation, and the Phase II (2017–2018) focusing on EO information production, delivery and capacity-building with the users to ensure that the information brings benefit to operational activities.



MAIN PARTNERS

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

MAIN THEMATIC COMPONENTS AND EO-BASED INFORMATION

- › **Large-scale crop area and type estimate** (ie. crop cover mapping and status assessment)
- › **Irrigation and irrigation systems management** (ie. energy balance, water productivity and water stress)
- › **Agriculture productivity assessment** (ie. yield estimation, ground water, precipitation monitoring)
- › **Rural infrastructure investments planning and monitoring** (ie. transport networks mapping)
- › **Land Degradation Assessment** (ie. land use, rainfall, soil moisture, precipitation, fAPAR, NDVI indicators)
- › **Ecosystem services in agriculture sector** (ie. water quality assessment, nitrogen content, land surface properties)
- › **Environmental Impact Assessment** (ie. landscape level classification and change mapping including fragmentation, and agriculture commodities production impact on deforestation)

PRELIMINARY LIST OF CANDIDATE REGIONS/COUNTRIES

Africa

- › East and Southern Africa (Uganda, Ethiopia, Madagascar)
- › Sahel and Sahara Belt (Great Green Wall, Burkina Faso)

Latin America

- › Southern Cone Countries (ie. Uruguay, Paraguay, Northern Provinces of Argentina)
- › Andes and Altiplano (Bolivia)

Asia

- › Southeast Asia (Indonesia, Cambodia)

MAIN DEVELOPMENT PROGRAMS AND INITIATIVES

- › IFAD's Adaptation for Smallholder Agriculture Programme (ASAP)
- › Great Green Wall Initiative (GGWI) and the Sahel and West Africa Program (SAWAP)
- › TerrAfrica Program & the Comprehensive African Agricultural Development Programme (CAADP)
- › Global Agriculture and Food Security Program (GASFP)
- › GEF Programs on Food Security and Sustainable Forest Management
- › Other regional and country-level programs to be decided in Phase I



More info

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