

ISAC Project

Project title

ISAC (Information Service on Agricultural Change)

Overview

ISAC aims to **develop and demonstrate feasibility of three generic services** for providing information on agriculture and the agro-environment in Europe and Africa. The principal objective is to provide spatial information on **drought risk** and **agricultural productivity** according to various climate change scenarios. The services will make use of images from recent **high frequency, high resolution (< 30m) wide swath satellite sensors**. By developing these services ISAC wants to address the needs of the **private insurance sector** as well as the **food security and emergency response sector**.

ISAC is funded by the European Commission's **FP7-SPACE programme**, Call 3: SPACE-2010-1 for **Stimulating the development of GMES Services**. The project started in January 2011 with a duration of 30 months.

Description

Expansion of the world population is one of the primary reasons for an **increased demand on land resources**. Exacerbated by **climate change**, this puts major constraints to sustainable land management. Occurrence of natural disasters significantly increased in the past 40 years, directly affecting the population through the events itself or indirectly through loss of agricultural production. Countries try to deal with these global trends in their own way, pending their priorities, resources and level of development.

In **Europe**, agriculture is regulated by the EC's Common Agricultural Policy. Farmers are mostly protected against abnormal conditions and calamities and are supported through the government or specific agricultural insurances in case of exceptional conditions leading to harvest failure.

In **Africa** crop and rangeland systems are less well understood and the resilience after disasters is low, directly affecting the livelihoods of vulnerable populations. Food aid and development programmes are designed to remedy the worst situations and formulate actions towards sustainable land management and development.

Although challenges are different from one country to another there is one major commonality:
the need for transparent and reliable information on agriculture and the agro-environment

Products

ISAC proposes to **develop and test feasibility of three services**:

- [Core Mapping Service \(CMS\) on High Resolution Biophysical Parameters \(ABP-CMS\)](#)
- [Core Information Service \(CIS\) on Drought stress \(DS-CIS\)](#)
- [Core Information Service \(CIS\) on Agricultural change \(AC-CIS\)](#)

Partners

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