



# AGRICULTURE / FORESTS

Geographic information is essential in countries where agriculture represents a major part of the country's national economy and food safety is threatened. Conflicts of use between forests and other land uses are now an integral part of international action plans concerning climatic changes and particularly within the framework of the REDD+ mechanism, a programme designed to fight against deforestation and forest degradation in developing countries.

Geographic data production and its integration into business applications aimed at supporting the sector's actors in their decision-making work. This data not only enables the detailed identification of agricultural and forest land areas but also it helps to gain specific knowledge of the type of crops or forests present as well as monitoring and analysing changes in land cover.

**IGN FI offers its services to produce and update a country's geographic data, develop profession-based information systems and decision-making tools. The company can also help countries to perform the same work themselves by providing assistance in project management.**

## OUR AREAS OF EXPERTISE

Advise, design and implement projects specifically adapted to the different integral elements of the agricultural and forestry sectors as well as land use on a wider scale:

- Acquisition of satellite images or aerial photographs
- Image processing (radiometric and geometric)
- Processing and integration of data from various sources
- Production of data bases and thematic maps
- Thematic inventories
- Statistical surveys (surface areas, yields)
- Verification and quality control of land use data
- Definition and implementation of sampling grids
- Laying down protocols for the validation of data in compliance with international standards
- Development and implementation of thematic application
- Theoretical and practical training

## OUR MEANS

In direct contact or via its network of partners, IGN FI provides specialist teams to its clients:

- Sector experts: experts in agriculture, forestry, geomorphology, hydrology, ecology, soil science, agronomic engineers, statisticians...
- Experts in teledetection
- Experts in geographic data production and management, in GIS
- Experienced project directors and managers

# SOME OF OUR REFERENCES

## CENTRAL AND WESTERN AFRICA • **Monitoring land cover dynamics using satellite images**

With the support of IGN, CNES and IRD, IGN FI coordinates a vast spatial observation programme financed by the AFD. The first phase (OSFT, from 2011 to 2015) has enabled the collection of up-to-date SPOT satellite images covering over 3 million km<sup>2</sup> in the Congo basin and their distribution to more than a hundred sustainable development projects. The programme has also produced forest maps complying with IPCC recommendations and enabled the skills reinforcement of the teams in recipient countries.

In 2016, a new phase began (OSFACO) not only to continue acquiring and disseminating images of the Congo Basin but also extending work to cover Guinea, the Ivory Coast and Benin. This phase of the programme shall also provide support to create land occupation maps locally as well as working to reinforce skills and fund micro-projects.



## BURKINA FASO • **Diachronic analysis and land cover accounting**

Several land cover database projects (BDOT) have been worked on by a multidisciplinary team of experts. The two land cover databases that were created (BDOT1992 and BDOT2002) and the changes database between 1992 and 2002 have been a major source of information for monitoring changes in land cover as well as the implementation of biophysical accounting of land. One last and more simplified land cover database was created using image coverage from 2012 in order to reply to the needs of foresters.



## EGYPT • **Follow-up and assessment of urban pressure on agricultural land**

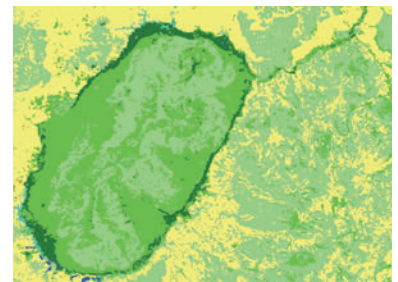
This project was the result of a close partnership between IGN FI and the French Ministry in charge of agriculture and resulted in the elaboration and implementation of statistical methodology for tracking urban takeover of agricultural land as well as the extension of agricultural land into the desert. It studied the whole of the Nile Delta and Valley and took place over a 20-year period between 1985 and 2005.



## EGYPT • **Inventory of crops, agricultural areas and yields**

This project provided reliable information to the Egyptian Ministry of Agriculture enabling it to gain better knowledge of the country's agricultural production, control it and in doing so, help to manage the country's agricultural policy.

It resulted in the creation of a comprehensive crop inventory, an estimation of the country's agricultural land, an assessment of yields for certain types of crops, a report on the irrigation system and tracking of irrigation and drainage channel contamination by water hyacinths.



## CENTRAL AMERICA AND THE CARIBBEAN • **Hydrological and environmental monitoring**

IGN FI led a project for the French Ministry of the Environment which aimed to improve awareness of the importance of the European CORINE project (coordination of information on the environment). The project ran from 1993 to 2003 and was aimed at the Central American and Caribbean Isthmus countries. A feasibility study on the Rio-Lempa basin was carried out as part of the project in order to adapt the CORINE Land Cover classification to the region's specific characteristics and launch environmental applications from the database. Funding was then obtained to extend the database to cover the whole territory of El Salvador.

## **Find more references at [www.ignfi.com](http://www.ignfi.com)**

As major player in the field of geomatics, IGN FI offers its expertise in the following areas: geodesy, metrology, mapping/national spatial data infrastructures, databases, geographic information systems, portals.

IGN FI's work is entirely based abroad, using the company's know-how in various sectors: land administration, the environment, civil security, borders...

## **IGN FI**

7, rue Biscornet

75012 PARIS - FRANCE

Phone: +33 1 42 34 56 56

Fax: +33 1 42 34 56 51

[info@ignfi.fr](mailto:info@ignfi.fr)

