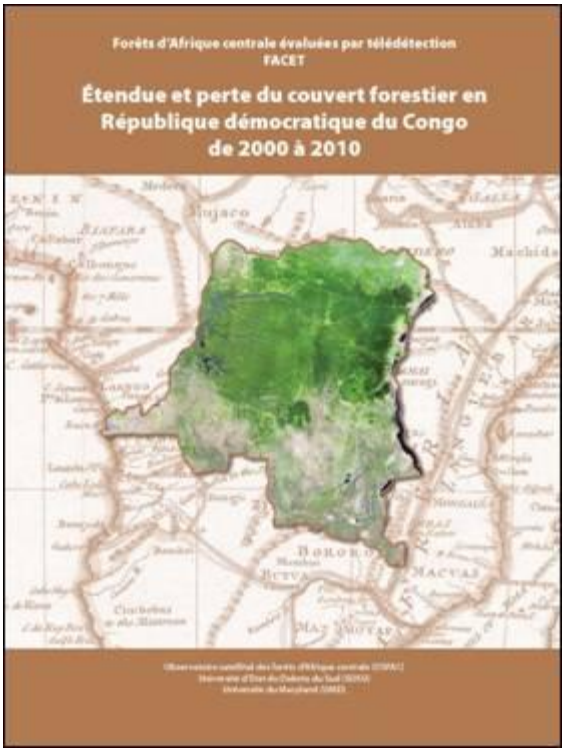
FACET Atlas Launch Ceremony: Monitoring the forests of Central Africa using remotely sensed data sets

The Democratic Republic of Congo (DRC) Ministry of Environment, Conservation of Nature and Tourism (MECNT), the United States Agency for International Development (USAID) – Central African Regional Program for the Environment (CARPE) and the Observatoire Satellital des Forêts d'Afrique Centrale (OSFAC) announced the release of the Forêts d'Afrique Centrale Evaluées par Télédétection (FACET) atlas of forest cover and forest cover loss for the Democratic Republic of Congo on the 5th of April 2011 at the Grand Hotel in Kinshasa, DRC.



The FACET Atlas for Democratic Republic of Congo

The presentation ceremony was attended by over 160 people from various DRC national institutions, diplomatic missions, international organizations, nongovernmental organizations, civil society, the private sector and academic institutions. The proceedings were chaired by His Excellency Mr. José Endundo Bononge, Minister of MECNT, Mr. James Entwistle, U.S. Ambassador to the DRC and Mr. John Flynn, Director of USAID-CARPE.

The launch ceremony featured speeches from the U.S. Ambassador, the Minister of MECNT, the Director of the Directorate of Inventory and Forest Management (DIAF), Mr. Sébastien Malélé, and the Director of the Observatoire Satellital des Forêts d'Afrique Centrale (OSFAC), Mr. Landing Mané.

In his speech, the U.S. Ambassador, His Excellency Mr. Entwistle observed that the FACET Atlas is a modern tool in line with the vision of U.S. President Barack Obama in the use of modern technology for development. Mr. Entwistle stated that the United States attaches great importance to the protection and management of forests in Central Africa, which constitutes as the second largest forest block in the world. This interest is manifested through the activities of U.S. Agency for International Development (USAID) / CARPE, the US Forest Service (USFS) and the National Aeronautics and Space Administration (NASA). Mr. Entwistle was pleased that an organization with a regional outlook like OSFAC was supported by American universities (University of Maryland and South Dakota State University), NASA and USAID / CARPE and was able to use Information Technology to monitor and manage natural resources in Central Africa. He ended his address by reiterating the U.S. commitment to continue to provide support to initiatives related to sustainable management of Congo Basin forests.

US Ambassador Mr. James Entwistle and OSFAC Director Mr. Landing Mané.

His Excellency, Mr. Endundo Bononge, Minister of Environment, Conservation of Nature and Tourism

His Excellency Mr. Endundo Bononge congratulated OSFAC and its partners in producing the DRC FACET Atlas, welcomed the presence of U.S. Ambassador to the ceremony and thanked USAID - CARPE for their multifaceted support to the MECNT.

He stressed that FACET would be a great contribution in three major application areas: controlling the exploitation of forest resources; land use planning and management, and monitoring climate change issues and specifically its application to the REDD (Reducing Emissions from Deforestation and Forest Degradation) mechanism. The Minister concluded his remarks by thanking the U.S. Government for its cooperation and encouraged the continuation of FACET.

Mr. Sébastien Malélé, Director of DIAF explained that his office is a Directorate of the Ministry of the Environment and the mission of DIAF is to inventory forest resources, provide forest management plans and to proceed with land use planning. He mentioned that DIAF has collaborated with OSFAC and USAID through the USFS. Mr. Malélé acknowledged that the FACET initiative is of major importance in forest monitoring because it provides information on the extent of forest cover and forest cover changes over time. The information could be used in several ongoing projects in the DRC. He thanked development partners for their support and called for the strengthening of national structures and strategies for acquisition of satellite data for land cover monitoring. Finally, he wished for continuing collaboration between DIAF, OSFAC, USAID - CARPE.

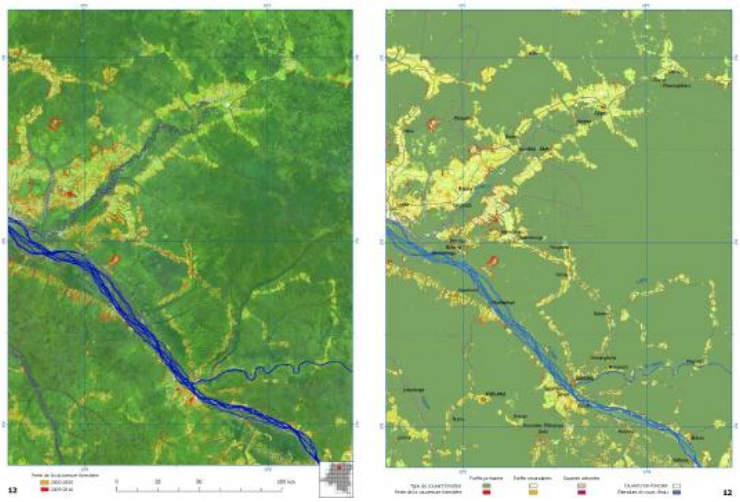
Government, civil society and non-governmental organizations were well represented at the FACET launch ceremony.

The Director of OSFAC, Mr. Landing Mané presented the FACET Atlas after briefly explaining the creation of OSFAC in 2000, the mission of OSFAC, the technical support that it provides and the partners of the Consortium of NASA (UMD, SDSU, OSFAC) through the USAID - CARPE program.

FACET is an OSFAC initiative whose main objective is to quantitatively assess the spatio-temporal dynamics of forest change in Central Africa through the use of multi-temporal satellite data. The series of multi-temporal data of FACET is a useful contribution to many projects, such as biodiversity monitoring, climate modeling, conservation, natural resource management, land use planning, agriculture and for REDD. The publication of FACET is the result of close collaboration between OSFAC and its partners to map the extent of forest cover and forest cover change. The wall-to-wall remote sensing method used to create the product was developed jointly by South Dakota State University and the University of Maryland as part of the USAID - CARPE program.

Mr. Mané stated that a multitude of information and statistics could be drawn from the DRC FACET Atlas. He presented and discussed some results, including the forest cover extent and the loss in the CARPE landscapes, Protected Areas, forest concessions, provinces and around major cities in DRC.

The statistics produced from the FACET data show that in 2010 the forest cover was estimated to be 1,558,174 km², or about 60% of the DRC territory. Between 2000 and 2010 the deforestation rate was 2.34%, and more specifically, 1.09% between 2000 and 2005 and 1.25% between 2005 and 2010. The provinces of Kinshasa, Kasaï Oriental, Kasaï Occidental and South Kivu lost the most forest between 2000 and 2010. Generally, there is a low rate of deforestation within protected areas and the CARPE landscapes and this demonstrates the positive impact of actions by various departments, organizations and projects working in the field of conservation and forest management. Along roads and around some cities like Kisangani, Kindu, Mbuji Mayi and Buta, forest loss has been very high between 2000 and 2010. Despite low rates of deforestation compared with other regions, deforestation in the DRC slightly increased between 2005 and 2010 compared to the period 2000 and 2005.



Sample pages from the FACET Atlas for DRC showing satellite image composite and map of forest cover.

Mr. Mané stated that after several years of research, the FACET methodology has demonstrated its reliability to be applied nationally or regionally. The results of the FACET Atlas can be used in several areas of planning, operation and management of natural resources.

In conclusion, Mr. Mané provided his recommendations: improved availability and accessibility of satellite data free of charge for all players in the Congo Basin; and the need to strengthen the capacities of national structures to allow them to capture new information technologies such as remote sensing. He went on to praise the 2008 U.S. government policy in providing free access to the Landsat image archive through the U.S. Geological Survey (USGS) and the commitment of certain international organizations in supporting the monitoring activities of the forests in Central Africa.

The FACET Atlas is distributed free on request and can be downloaded from the following address: http://osfac.net/facet.html