



Letter from the Project Manager...

Dear Users and Members of the GSE FM Service Network:

As you know the European Space Agency (ESA) supported GMES Service Element on Forest Monitoring (GSE FM) which was initiated in February 2003 is currently in its implementation stage and is being executed by an international Consortium led by GAF AG. We are now in the second year of the implementation stage of the programme where we move towards operationality. In this phase we have formalised an User Executive Body (UEB) in order to involve the users more in the processes and activities of the GSE FM and it is in this context that we have initiated this GSE FM User/Service Network Newsletter which is intended to serve the GSE FM partners in bringing regular and updated information on both the user activities as well as any new developments in the GSE FM. The Newsletter will be produced on a quarterly basis. We would like to invite all GSE FM partners to contribute actively to the Newsletter and provide inputs/comments and share experiences with all partners in this manner.

We look forward to your valuable participation in this programme, to ensure its sustainability.

*Thomas Häusler,
GSE FM Project Manager,
GAF-AG, Germany*

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Figure 1 New Product for Pan European Case:
60 m Resolution Ortho Rectified Image Map Based on AWIFS data

GSE FM was present at

- GSE FM Presentation at EarSEL Conference, Italy, June 2007
- GSE FM Reducing Emissions from Deforestation and Degradation (REDD) Case presented at the UNFCCC-SBSTA Meeting, Bonn-May 2007

Future Events

- GSE FM Annual Review Meeting, EEA Offices, Copenhagen, January 2008
- ForestSAT2007 – Special side event on GSE FM, 5-7 November, Montpellier, France

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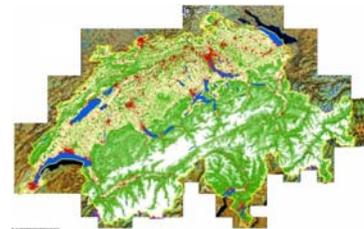
Recent User Activities for GSE FM: ENVISAT Conference, May 2007

By Sharon Gomez, GAF, Germany

A main contribution by one of our supportive users was the presentation at the ESA-ENVISAT Symposium, Montreux, Switzerland, May 2007 by Mr. J. Romero who is based at Section Conventions International Affairs Division-Federal Office for the Environment (FOEN), Switzerland. Mr. Romero presented a paper on "Space for UNFCCC and the Kyoto Inventory and GSE Forest Monitoring Projects".

In his presentation he noted that ESA started working with the UNFCCC secretariat in 2001 to support the Parties to the Protocol in producing the needed maps and statistics based on satellite images in combination with ground measurements and other data. In this context the state and changes in land use and forestry in Switzerland and Netherlands were mapped for three different years, in addition to large parts of Italy, Germany, Spain, France, Greece, Denmark and Poland.

The benefits to the user of implementing remote sensing included more time-cost effectiveness compared to traditional methods; higher frequency of information updates allowing true monitoring; spatially explicit information, in particular, about land use changes; and transparent, consistent, complete and comparable results. In his final comments, Mr. Romero noted that, "...remote sensing, a powerful tool for environmental intelligence and sustainable development, will help us to implement the Kyoto Protocol. Reporting on changes in carbon pools is a challenging task. And thus ESA offers us a unique opportunity to complete our sample-based National Forest Inventory with remote sensing data providing us with land use and land-use change maps on a yearly basis for reporting purposes under articles 3.3 and 3.4 of the Kyoto Protocol."



Kyoto Inventory project – 2002
Land Use Map on Switzerland
(Produced for user FOEN by
service provider Intecs, 2007)

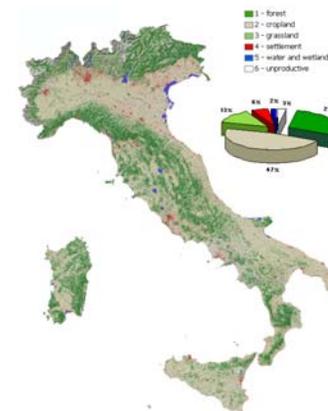
Forest Monitoring Inputs for National Greenhouse Gas Reporting : 1990 Land Use Map for whole Italy completed in September 2007

By Olga Renda, Intecs, Italy

The Annex I Parties to the Kyoto Protocol refer to 1990 as the base year to which net greenhouse gas emission reductions during the period 2008-2012 can be compared to. 1990 is also the starting point for carbon crediting in Land Use, Land Use Change and Forestry activities (LULUCF, ref. Kyoto Protocol articles 3.3 and 3.4).

The Italian Ministry for the Environment, Land and Sea (MATM) has planned to establish the National Register of Carbon Sinks, including the National Inventory of Forests and Carbon sinks (INFC) for monitoring the flows of Greenhouse Gases due to LULUCF activities. Nevertheless data for the baseline year was missing, and the first goal that the Ministry assigned to the service was to provide a prototype of a land use map for 1990, based on Earth Observation data.

Intecs completed the requested map in September 2007, based on Landsat-5 Thematic Mapper (TM) data, on more than 310 000 Km². All regions have been validated by photo interpretation on aerial photos 88/89 and the resulting overall thematic accuracy for each single region ranges from 90% to 95%. Beside that, similar maps for 1997 and 2002 have been produced with the same methodology on six different regions, based on Landsat 7 ETM.



1990 Land Use Map for Italy
ready in September 2007
(Produced for user MATM by
service provider Intecs, 2007)