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CONTROL ID: 1196134

TITLE: ASSESSMENT AND MONITORING OF SIBERIAN FOREST RESOURCES IN THE FRAMEWORK OF THE EU-RUSSIA ZAPÁS PROJECT

PRESENTATION TYPE: Assigned by Committee (Oral or Poster) [Invited]

CURRENT SECTION/FOCUS GROUP: Global Environmental Change (GC)

CURRENT SESSION: GC16. Regional Climate Impacts 7. Environmental, Socio-economic and Climatic Changes in Northern Eurasia and their Feedbacks to the Global Earth System: The Role of Remote Sensing and Integrative Studies

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Title of Team:

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ABSTRACT BODY: SUMMARY
ZAPÁS investigates and cross validates methodologies using both Russian and European Earth observation data to develop procedures and products for forest resource assessment and monitoring. Products include biomass change maps for the years 2007-2008-2009 on a local scale, a biomass and improved land cover map on the regional scale, and a 1 km land cover map as input to a carbon accounting model.

The geographical focus of research and development is Central Siberia, which contains two administrative districts of Russia, namely Krasnoyarsk Kray and Irkutsk Oblast. The overall concept of the ZAPÁS project is described in Fig. 1. The left column presents the required input data for methodological development and product delineation. The coarse scale products (> 300 m x 300 m) as well as the results of the terrestrial ecosystem full carbon accounting are addressed to the Federal Forest Agency as federal instance. Besides the input data (left column) also preliminary and final products are depicted in Fig. 1 (pale green and light green boxes, second and third column). In terms of scale in general two lines of products can be distinguished. The high resolution products feature one line (the lower half of the sketch) and comprise biomass and change maps for selected local sites. These products are addressed to support the UN FAO Forest Resources Assessment as well as the requirements of the local forest inventories.
The other line comprises the medium to low scale products based on medium scale EO data: METEOR-M1, MERIS, and ASAR WS. The land cover map will be improved by means of a knowledge based merging process which combines the information of the biomass and land cover maps. The improved land cover map has to be implemented into the IIASA GIS (scale 1:500,000), which contains all required information for carbon accounting, including information on the land cover. Eventually, terrestrial ecosystem full carbon accounting will be accomplished. These coarse scale products are addressed to support global environmental issues such as UNFCCC and its Kyoto Protocol as well as the requirements of Russian Federal Agencies.

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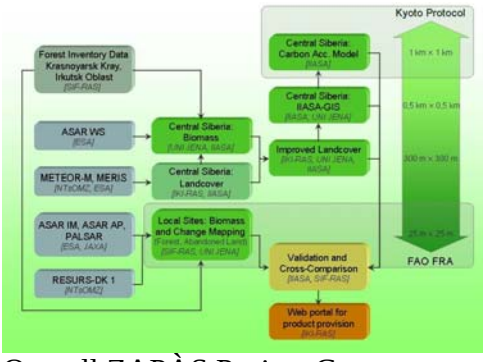

Overall ZAPÀS Project Concept

(No Table Selected)

INDEX TERMS: [1640] GLOBAL CHANGE / Remote sensing, [1632] GLOBAL CHANGE / Land cover change, [1631] GLOBAL CHANGE / Land/atmosphere interactions, [1637] GLOBAL CHANGE / Regional climate change.