

Title: Regional Scale Assessment of Forest Resources and Forest Cover Changes in Eurasia at Two Epochs

Product Leader: Frank (Gianfranco) De Grandi

Affiliation: European Commission – DG Joint Research Centre

Product Team (confirmed members only):

- Yrjo Rauste (VTT, Finland)
- IAXA – EORC
- Boreas Machine consortium (if project approved)

Agreement status: High in the blue sky

Preferred agreement type (individual/institutional): Institutional

Project objective(s):

- Compilation, geo-location and validation of a reference forest cover map of the Eurasian Taiga at epoch 1 (1997) using JERS-1 acquisitions and the GLC-2000 land cover map. Max resolution element size 300 m.
- Compilation, co-registration and validation of a Taiga forest cover map at epoch 2 (2005) using PALSAR dual-pol data and ENVISAT MERIS data.
- Generation of a change map between the two epochs and first estimate of the method's accuracy.
- Validation of the change map by cross-comparison with a statistical sample of cover-change maps at higher resolution. These maps will be derived by an independent analysis method.

Regional Scale Assessment of Forest Resources and Forest Cover Changes in Eurasia at Two Epochs

Prototype Area 1: Siberia

Corresponding observation plan polygon(s): A1, A2, A3, A4, A5

No. PALSAR paths/coverage: ~623 passes

PALSAR request (Year 1-3): ~623 passes

Input data (EORC products): PALSAR HH+HV 34.3 (Sigma-0, ground range, 50 m)

Ancillary data requests: Coherence mosaic, DEM (from PRISM, SRTM?)

Prototype Area 2: Europe-Russia

Corresponding observation plan polygon(s): D3, D4, D5

No. PALSAR paths/coverage: 266

PALSAR request (Year 1-3): 266

Input data (EORC products): PALSAR HH+HV 34.3 (Sigma-0, ground range, 50 m)

Ancillary data requests: Coherence mosaic, DEM (from PRISM, SRTM?)

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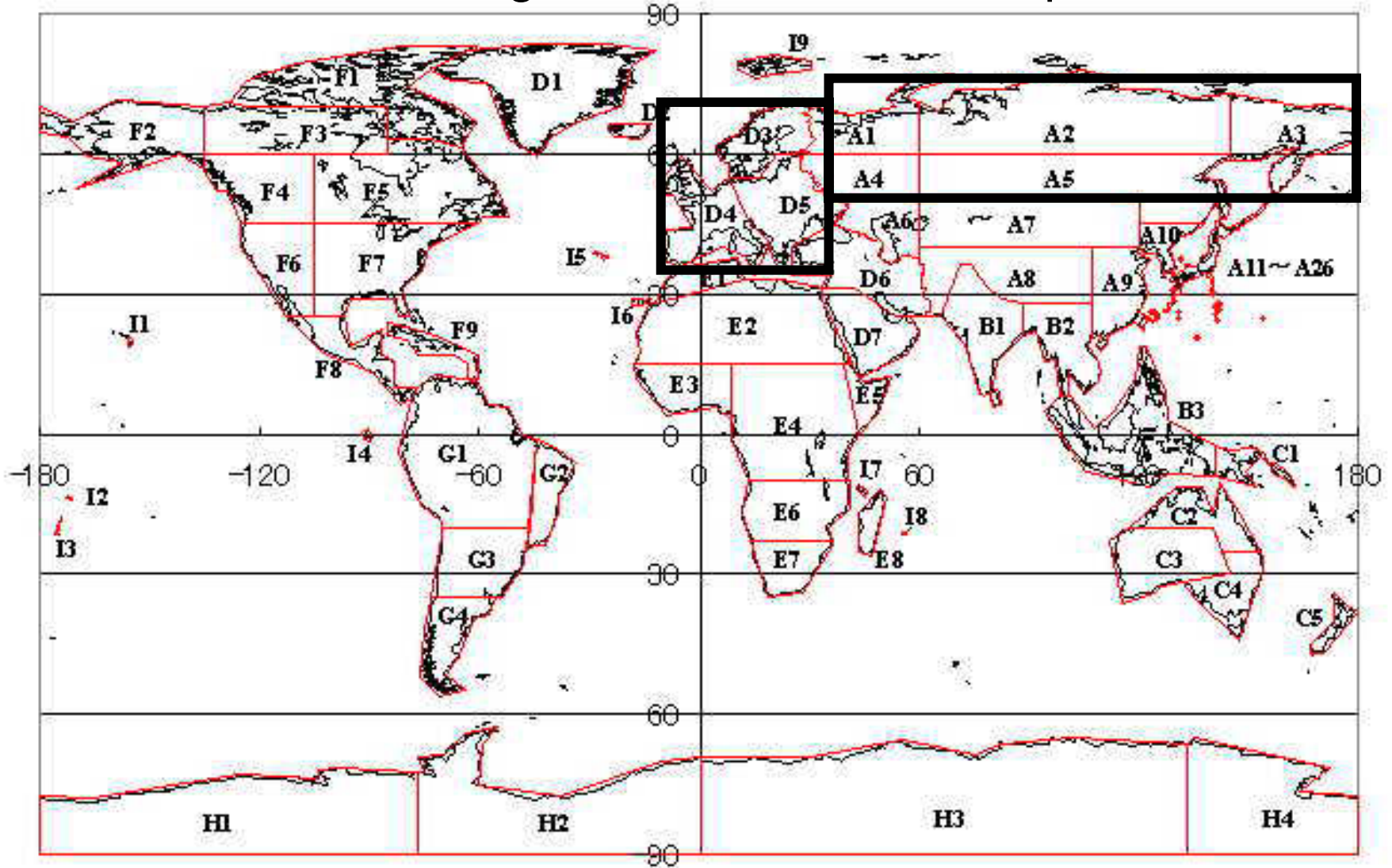
K&C Product Deliverables (before end of Year 3):

- Map of forest resources in the Eurasian Taiga at two epochs (1997-2005).
- Map of forest changes (between two epochs).

Prospects for Years 4-6 (assuming agreement extension)

- Accuracy assessment by independent data.
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Cover Changes in Eurasia at Two Epochs



Location of Prototype Areas

Congo Basin

Product Leader: Frank (Gianfranco) De Grandi

Affiliation: European Commission – DG Joint Research Centre

Product Team (confirmed members only):

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Agreement status: High in the blue sky

Preferred agreement type (individual/institutional): Institutional

Project objective(s):

- Development of a geo-referenced radar mosaic (backscatter and texture) of the transition zones (in collaboration with the Mosaic Products team)
- Thematic classification using the PALSAR mosaic and the GLC-2000 land cover map.
- Validation of the thematic map by high-resolution optical data (Landsat TM).

Mapping Transition Zones at the Borders of Congo Basin

Prototype Area 1: Humid rain forest Southern transition zone

Corresponding observation plan polygon(s): E2, E3, E4

No. PALSAR paths/coverage: ~52 passes

PALSAR request (Year 1-3): ~52 passes

Input data (EORC products): PALSAR HH+HV 34.3 (Sigma-0, ground range, 50 m) or mosaic product.

Ancillary data requests: Coherence mosaic, DEM (from PRISM, SRTM?)

Prototype Area 2: Humid rain forest Northern transition zone

Corresponding observation plan polygon(s): E4, E5

No. PALSAR paths/coverage: 74

PALSAR request (Year 1-3): 74

Input data (EORC products): PALSAR HH+HV 34.3 (Sigma-0, ground range, 50 m) or mosaic product.

Ancillary data requests: Coherence mosaic, DEM (from PRISM, SRTM?)

Mapping Transition Zones at the Borders of Congo Basin

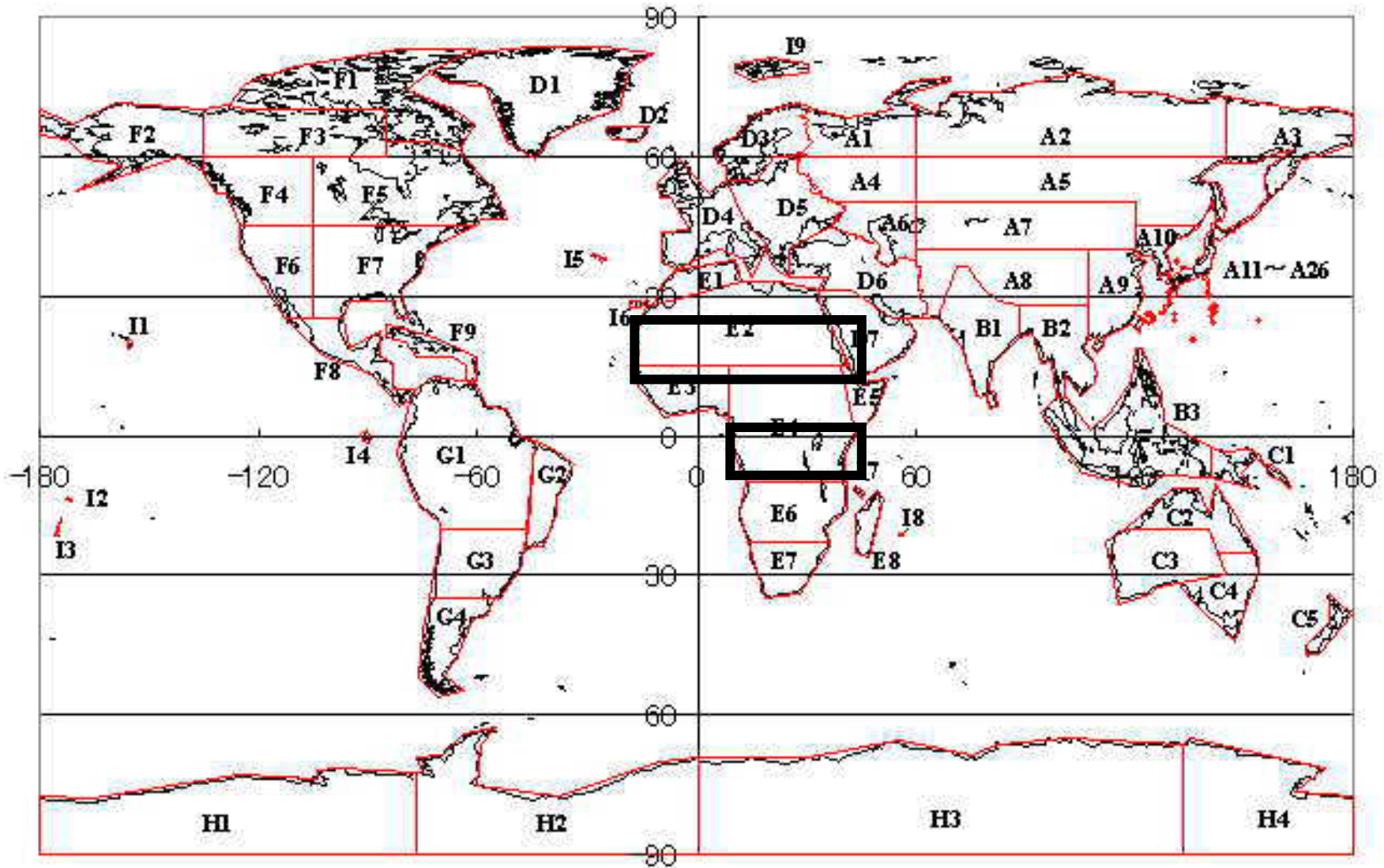
K&C Product Deliverables (before end of Year 3):

- Thematic map of the forest-woodlands transitions in the Congo basin.
- Validation of the map.

Prospects for Years 4-6 (assuming agreement extension)

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Mapping Transition Zones at the Borders of Congo Basin



Location of Prototype Areas