Title: Map tropical peat swamp forests

Product Leader: Dirk Hoekman

Affiliation: Borneo Orangutan Survival Foundation (Indonesia)/ Wageningen University (The Netherlands)

Product Team (confirmed members only):
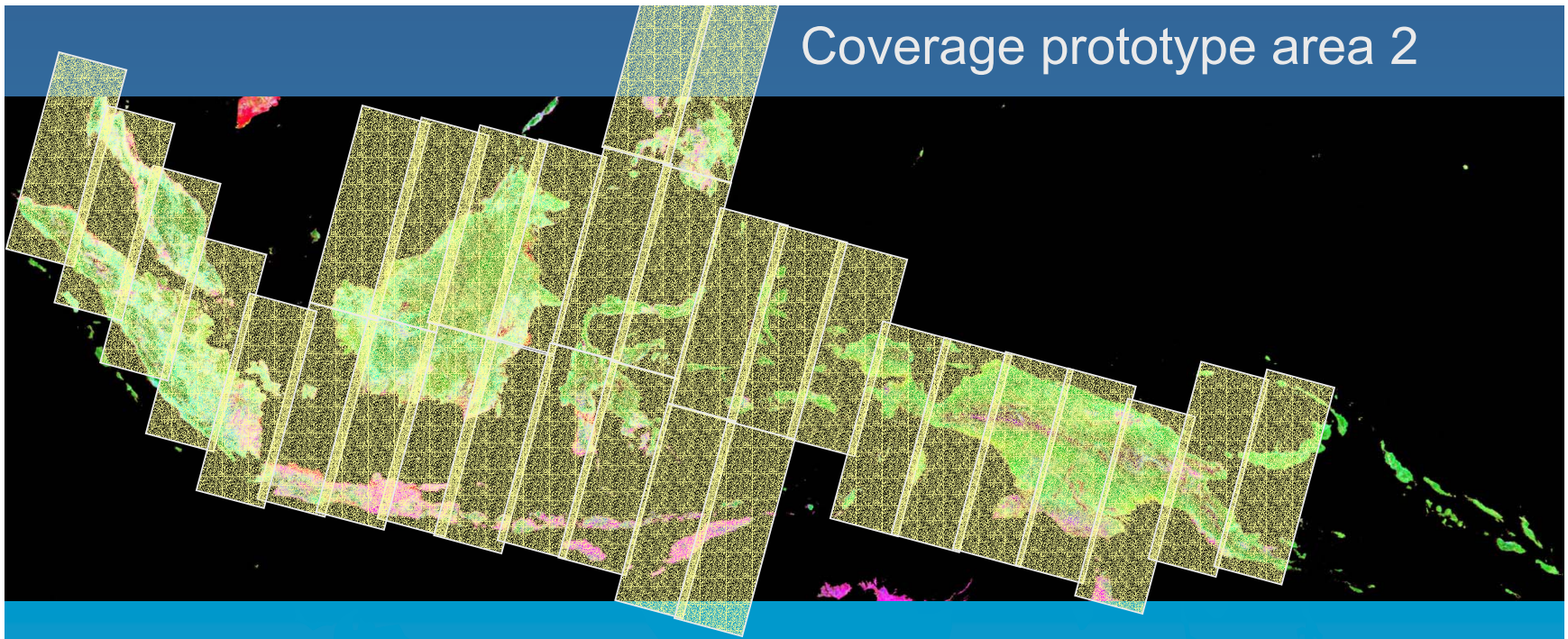- Academic staff BOSF (7), WU (3)

Agreement status: Ready to sign!

Preferred agreement type (individual/institutional): Institutional (BOSF)

Project objective(s):
- Develop methodology for spatial quantification of (i) carbon stocks, (ii) hydrology and (iii) immediate threats (excessive drainage, fire susceptibility, etc) over Borneo, part of Sumatra (Prototype Area 1), using ScanSAR non-mosaicked path images and historical JERS-1 SAR data as primary data source.
- Support peat land restoration (Wetlands International, Ramsar), support carbon cycle science and carbon crediting
- Application of the methodology for insular South-East Asia & PNG (Prototype Area 2), using 100? m resolution ScanSAR mosaics.
- Develop a base map for (permanent) monitoring (under Forest & LCC Theme) (2005-2006-2007)
- Generation of a 10-year peat swamp forest degradation map over insular SE-Asia (JERS-PALSAR)

Coverage prototype area 2

Sumatra-Peninsular Malaysia 5
Borneo-Java 8
Sulawesi-Mindanao-Nusa Tenggara 6
Maluku-Timor 4
Guinea 8

Total: 31

2002-09 SPOT Veg
7600x2460 pix ~ km
15°

342 x2000 km

68.4 x 2000 km

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Prototype Area 1: Borneo, small part of Sumatra

Corresponding observation plan polygon(s): B3 (part);

No. PALSAR paths/coverage: ~10 passes (ScanSAR); ~40 passes (HH/HV)

PALSAR request (Year 1-3): ~120 passes (ScanSAR all (i.e.12) full coverages); ~40 passes (HH/VV one coverage);

Input data (EORC products): PALSAR path images (Sigma-0, 50/100 m)

Ancillary data requests: ~ 40? passes JERS-1 SAR path images 1992-1997 (11? coverages), GLI monthly aggregates

Prototype Area 2: Indonesia, Malaysia, Mindanao, PNG

Corresponding observation plan polygon(s): B3 (almost all); C1 (all)

No. PALSAR paths/coverage: ~31 passes ScanSAR (155 passes HH/HV)

PALSAR request (Year 1-3): 12 full coverages ScanSAR (+ one full coverage HH/VV)

Input data (EORC products): PALSAR image mosaics (Sigma-0, SRTM corr., 50/100m)

Ancillary data requests: JERS-1 SAR (selection?), GLI monthly aggregates
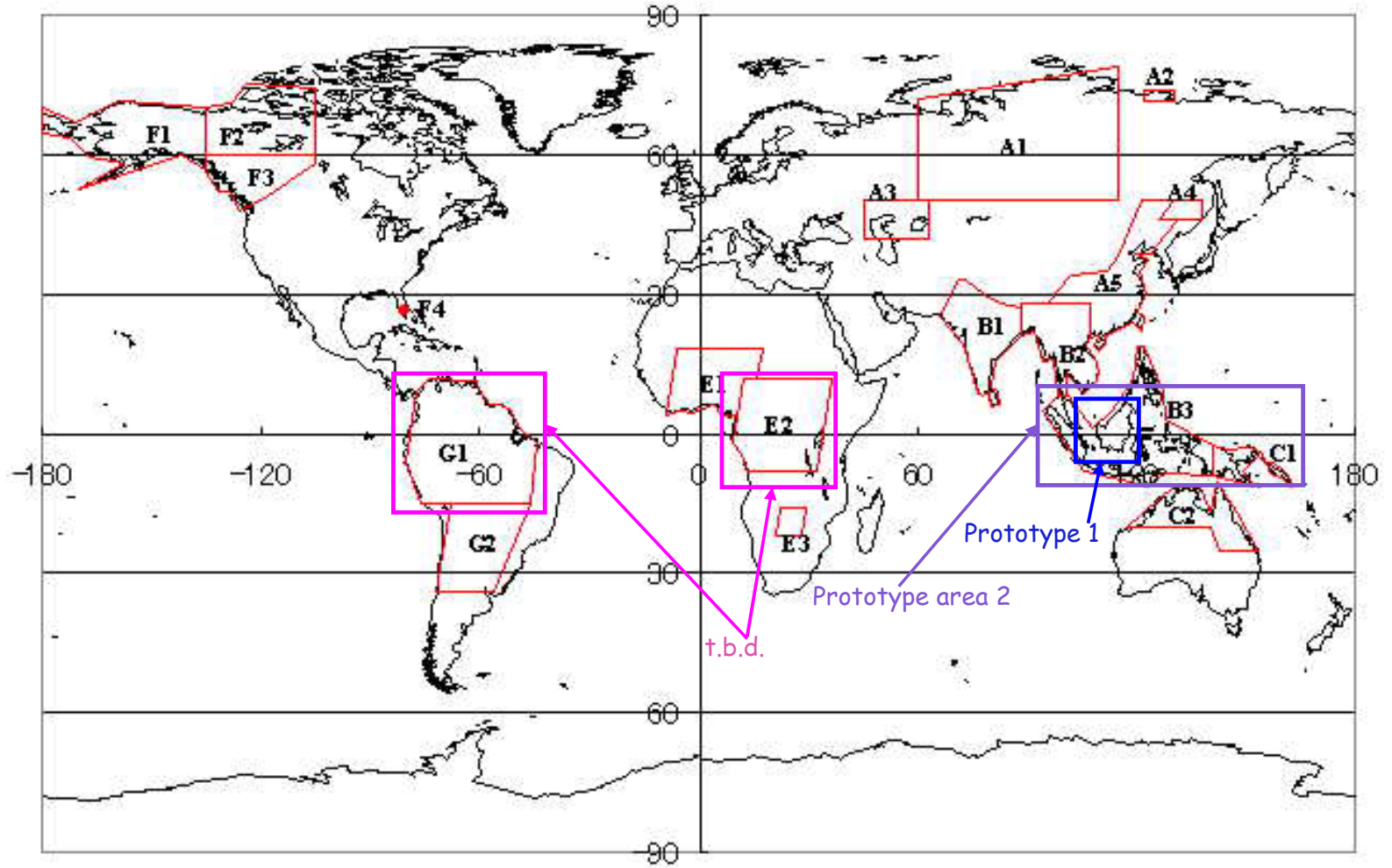
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K&C Product Deliverables (before end of Year 3):

- 1 Peat swamp forest map insular SE-Asia & PNG (2005-2006)
- 10-year change map (JERS-PALSAR)
- t.b.d.: Support to projects in Congo (E2) and Amazon (G1) basins

Prospects for Years 4-6 (assuming agreement extension)

- 1 Map update (in Year 6)
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Location of Prototype Areas

Prototype area 1

Mawas Reserve (peat forest)

540,000 ha confirmed reference site (BOSF)

research facilities, including 23 km walking bridge

(+ peat depth sonar and P-band SAR experiments)

TN Berbak (peat forest)
160,000 ha, confirmed
science support Wageningen

TN Sembilang (mangrove)
200,000 ha, confirmed
science support Wageningen

Product Leader: Richard Lucas
Affiliation:
Product Team (confirmed members only):
- Dirk Hoekman, Academic staff BOSF, WU

Agreement status: Ready to sign!
Preferred agreement type (individual/institutional): Institutional (BOSF)

Project objective(s):
- Develop methodology for (i) mangrove mapping, ….
- Application of the methodology for (i) insular SE Asia & PNG, …..
- Develop a base map for (permanent) monitoring (under Forest & LCC Theme) (2005-2006-2007) in B3 & C1