K&C Phase 3 – Brief project essentials

Produce JAXA ALOS-based algorithms to map LULUCF for cloud and haze covered Sumatra, Indonesia

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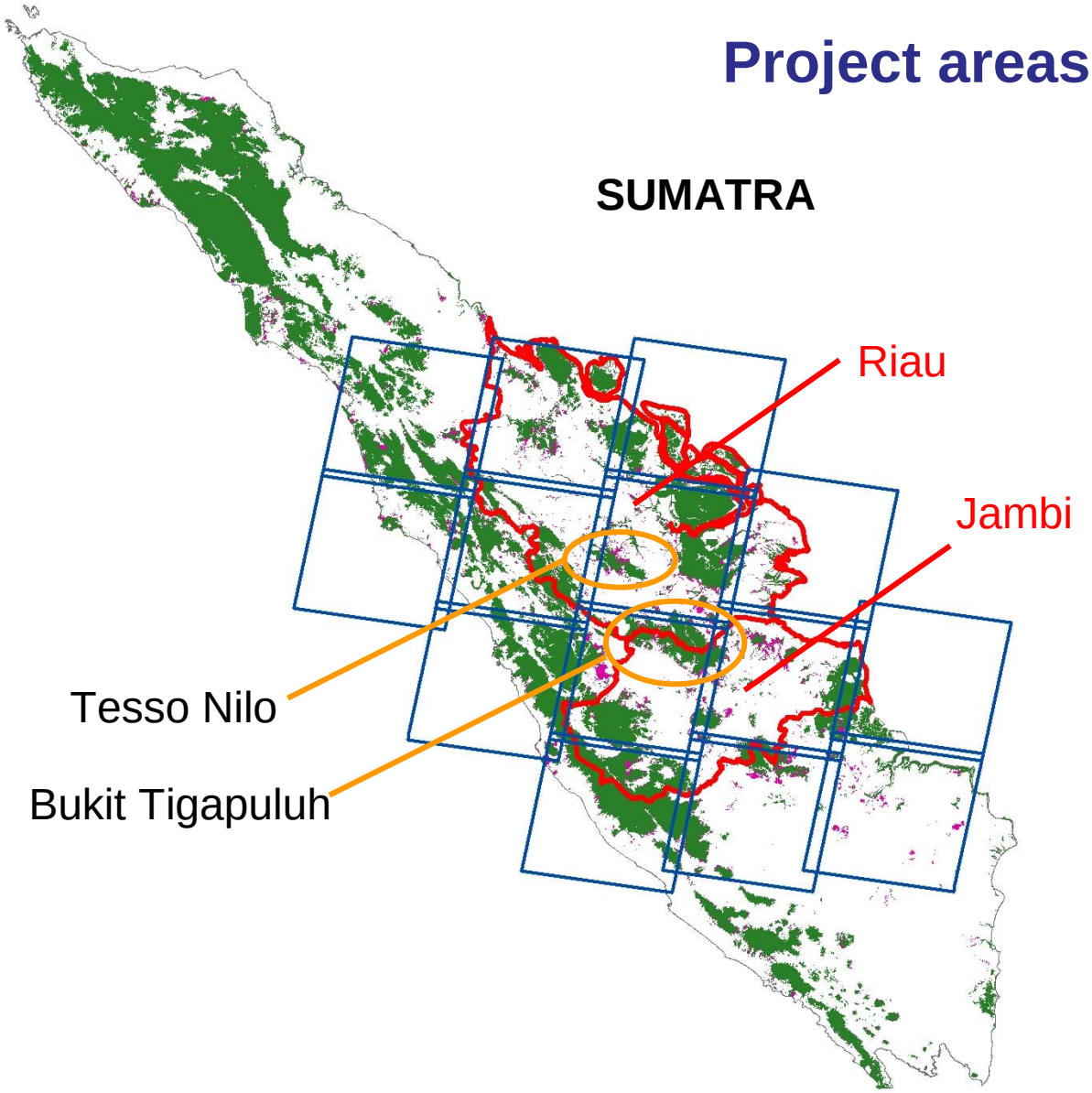
WWF

Science Team meeting #16 – Phase 3 Kick-off
JAXA TKSC/RESTEC HQ, Tsukuba/Tokyo, October 17-21, 2011

Project areas



Three levels of focus:
- Sumatra Island
- Riau and Jambi Provinces
- Tesso Nilo and Bukit Tigapuluh Landscapes

Challenges:
- Cloud and haze free Landsat images are very limited.
- Forest and land cover change is fast.

Project objectives, deliverables and schedule

Objectives:

Develop easy-to-run & accurate algorithms to map natural forest and land cover change in ever cloudy and hazy Sumatra, Indonesia,
using PALSAR data **as part of JAXA's global mapping efforts**
to help monitor tropical **C**arbon cycle, and
to contribute to International **C**onventions, such as CBD and UNFCCC, and environmental and biodiversity **C**onservation.

Collaborators:

JAXA and RESTEC
Sheffield University

Project milestones up to March 2014:

Algorithms developed and historical "K&C certified" 25-meter spatial resolution maps produced with ALOS 1 2007 to 2010 data showing:

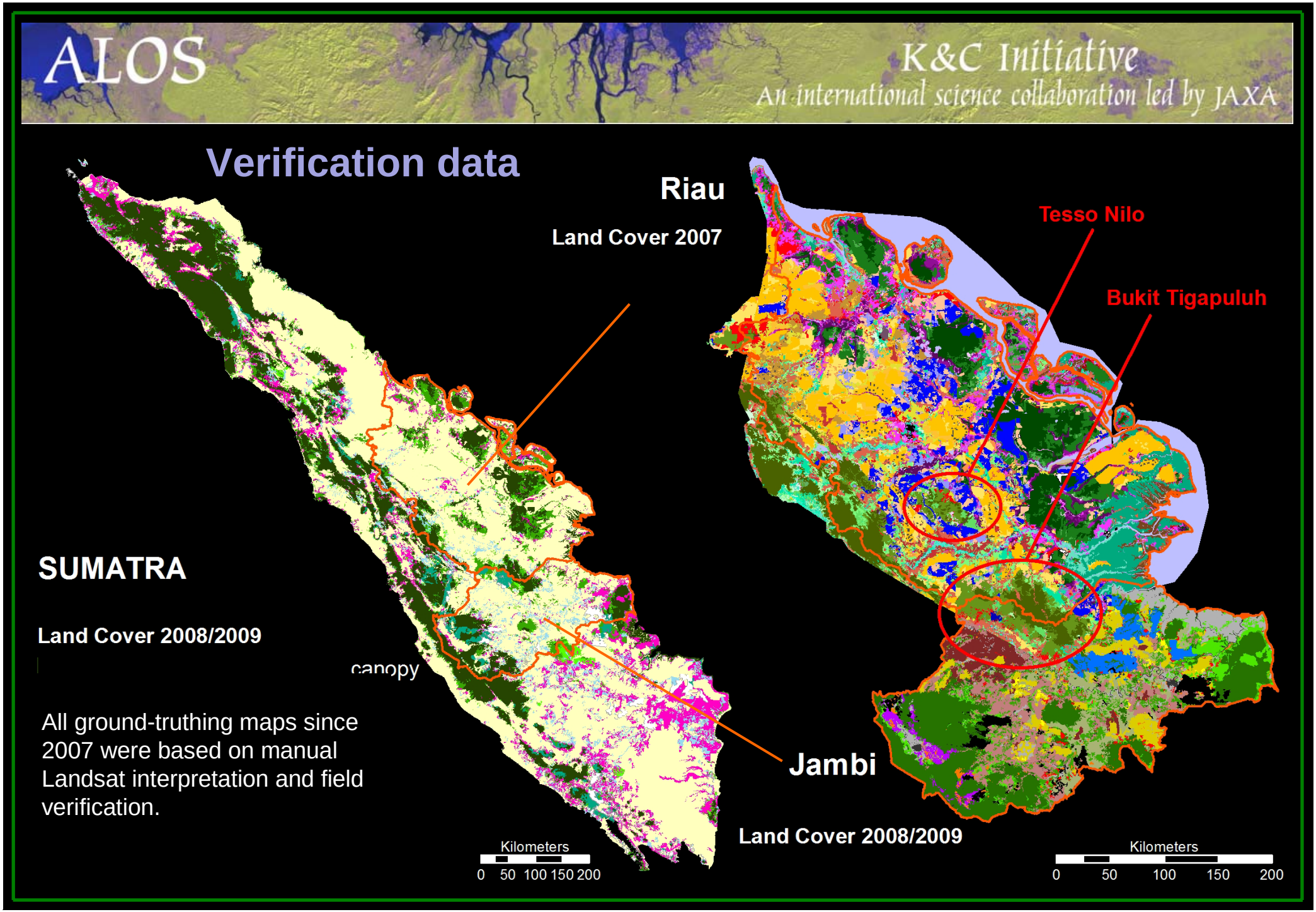
1. natural forest and non-natural forest and key land covers (by early 2012).
2. onset of natural forest clearance (by early 2012).
3. above-ground biomass of natural forest and key non-natural forest land covers (by late 2012 or early 2013).

Support to JAXA's global forest mapping effort

The project is part of JAXA's global forest mapping effort, focusing on the Indonesian island of Sumatra.

The project will provide:

- Self-classified maps of natural forest and land covers based on interpretation of Landsat and other optical data.
- Geo-coded field photos.
- Field measurements of forest biomass data.


ALOS
K&C Initiative
An international science collaboration led by JAXA
Verification data
Riau
Land Cover 2007
Tesso Nilo
Bukit Tigapuluh
SUMATRA
Land Cover 2008/2009
canopy
All ground-truthing maps since 2007 were based on manual Landsat interpretation and field verification.
Jambi
Land Cover 2008/2009
Kilometers
0 50 100 150 200
Kilometers
0 50 100 150 200

ALOS

K&C Initiative

An international science collaboration led by JAXA