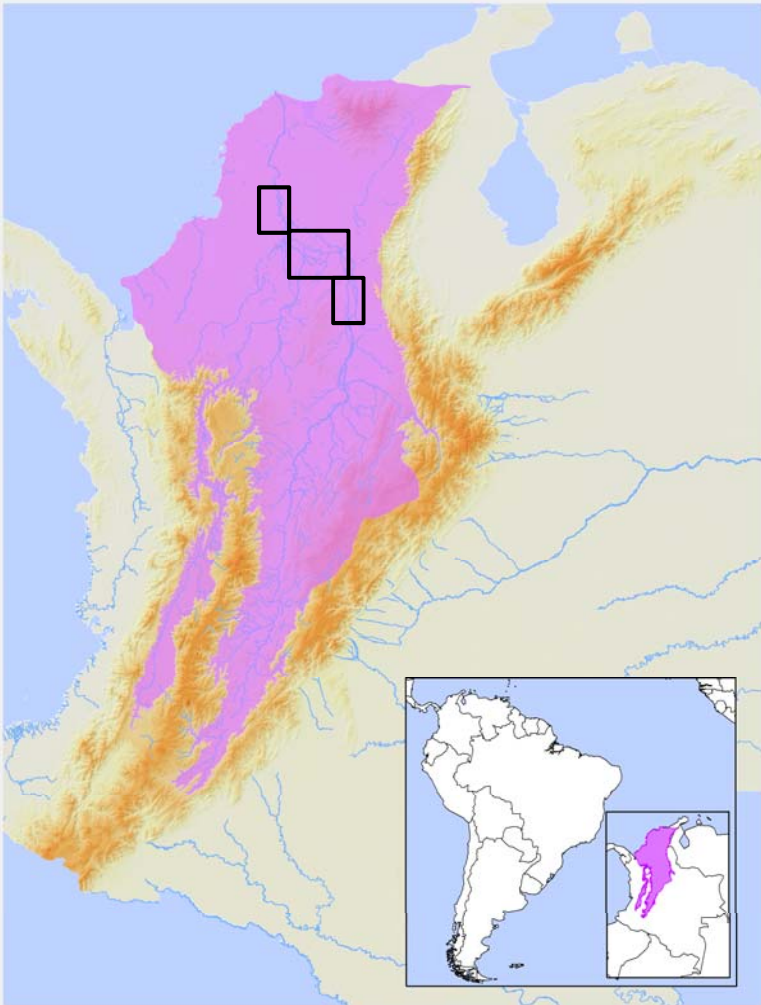


K&C Phase 3 – Brief project essentials

*Conserving forest and wetlands in Northern Andes and
South Central America*

*Carlos Pedraza
GIS Data Specialist – The Nature Conservancy – NASCA
Program*

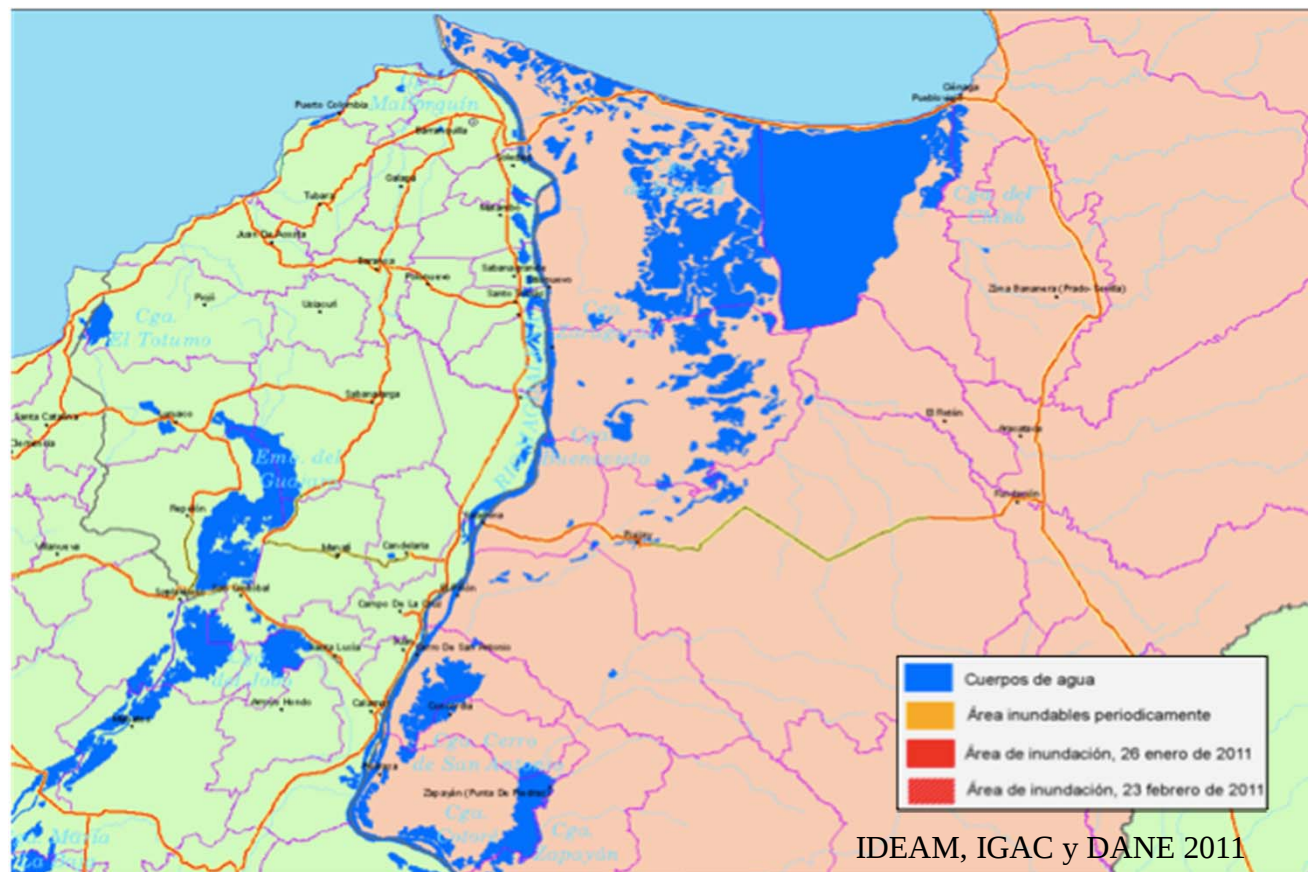
Spatial and temporal flooding patterns: Magdalena-Cauca Basin



- Basin region below 1 500 m; except for Guajira (excluded) and high plains of Bogota region (included)
- 236 059 Km²
- Eight in ten lives in Mag.-Cauca basin
- Produces 86% of the GDP
- 2009-2010 flooding levels reached highest levels in 109 years
- Consequence: Economic toll stimated in 2% of GDP

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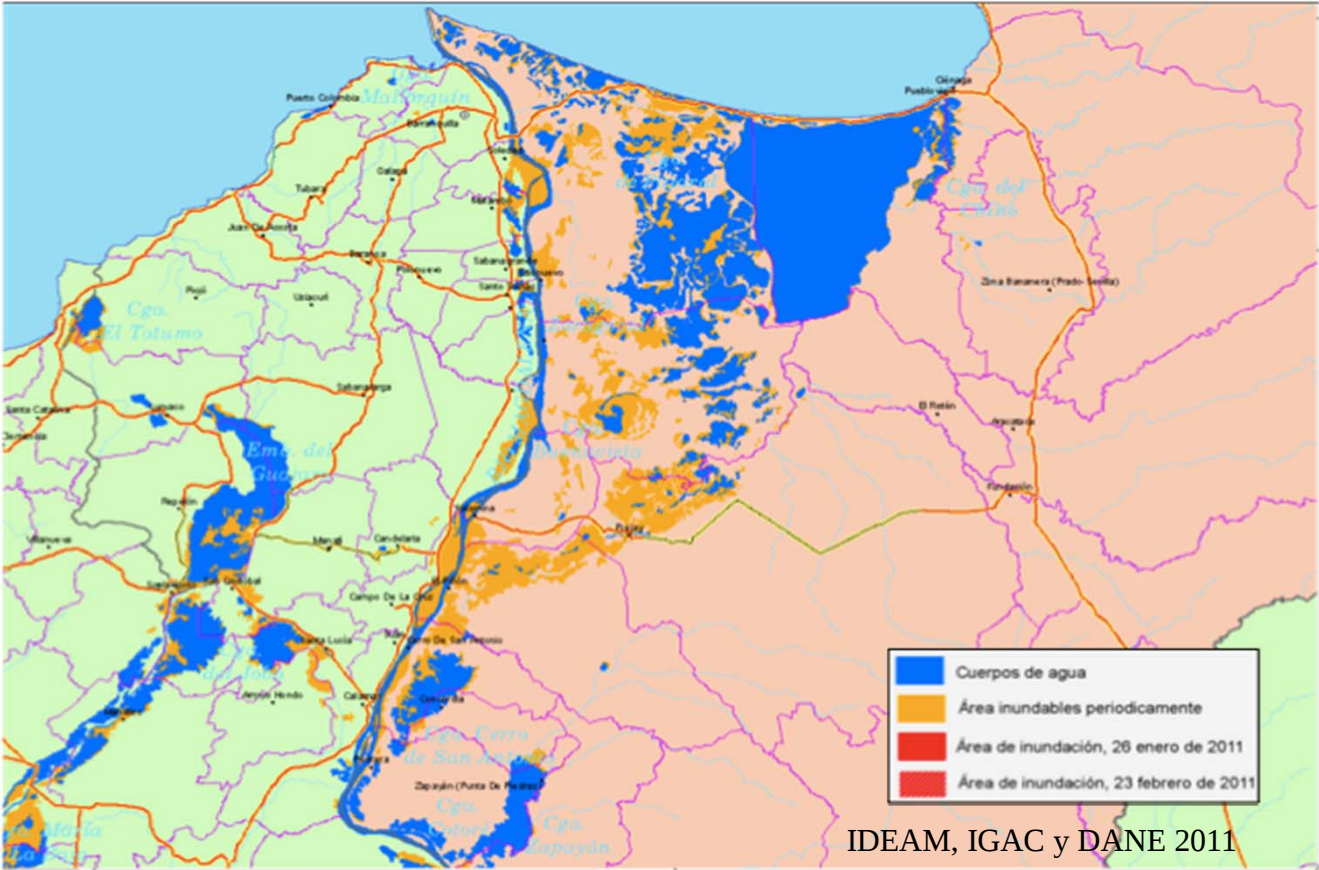
IDEAM, IGAC y DANE 2011



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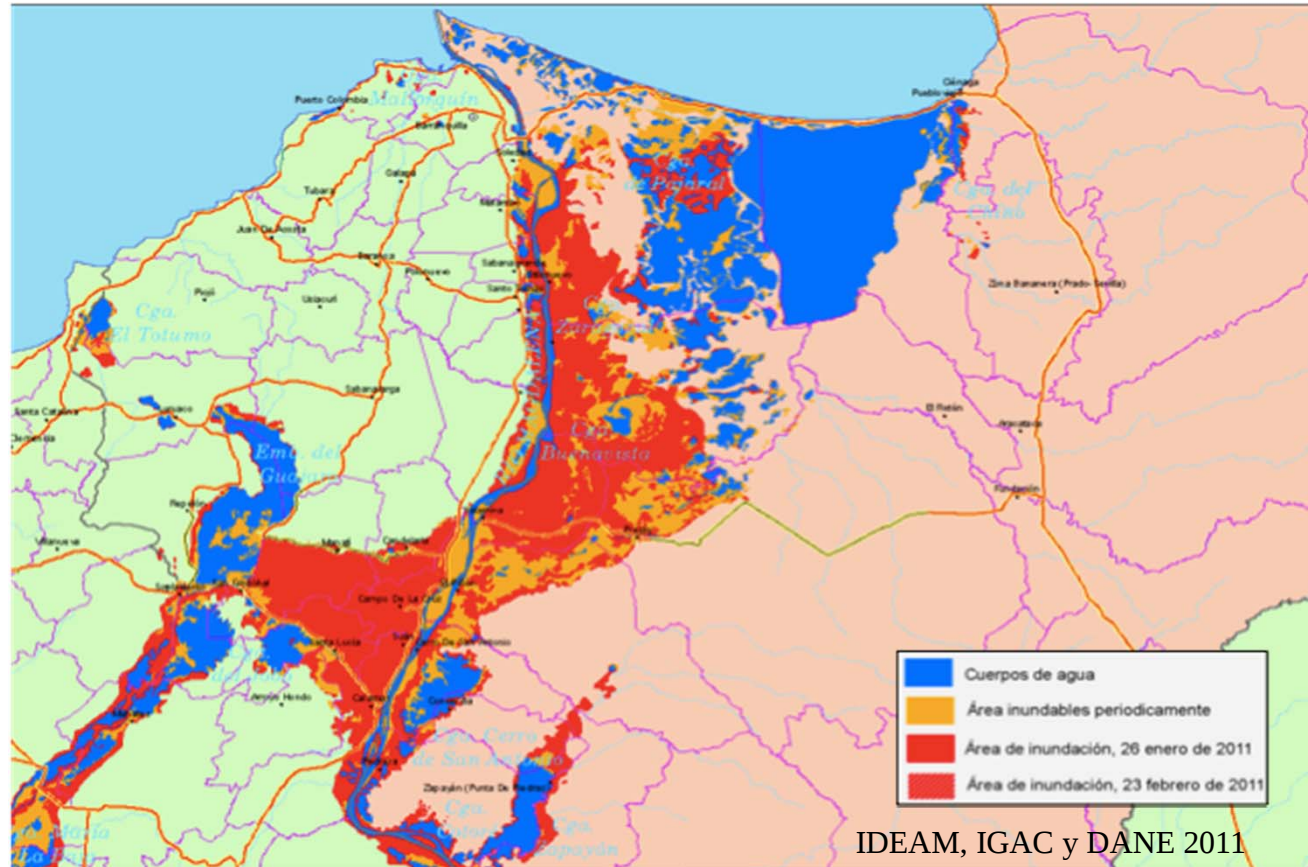
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IDEAM, IGAC y DANE 2011

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830 000 ha flood

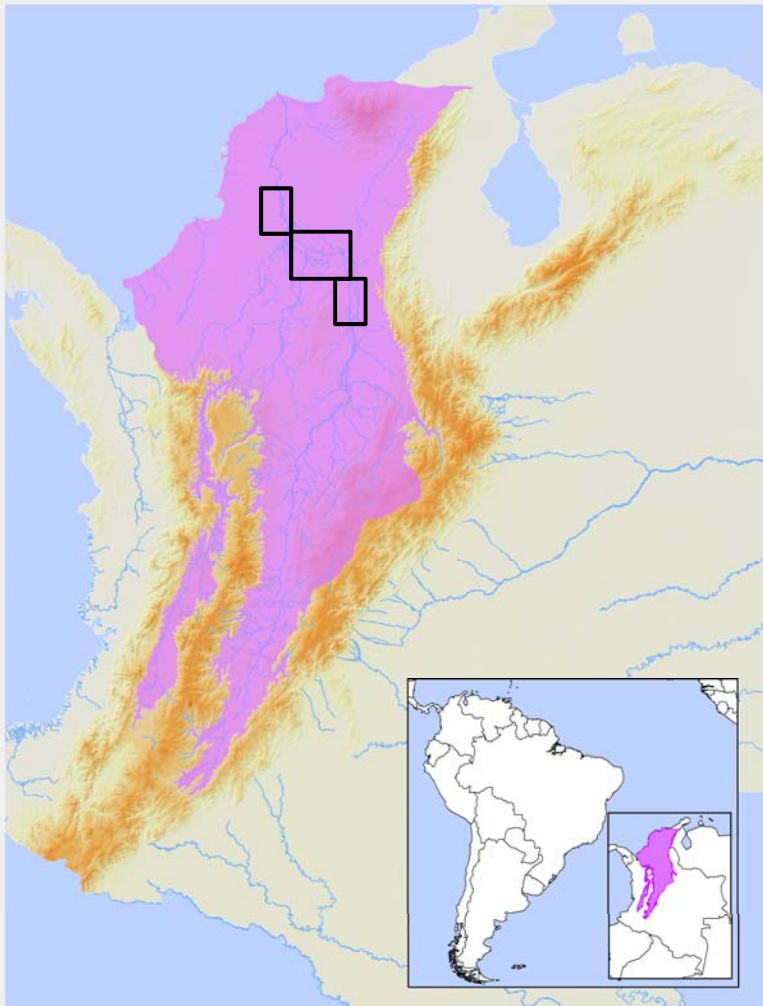
Project objectives and schedule

- Determine the spatial and temporal pattern of flooding in the Magdalena-Cauca basin.
 - ↓ 256 Wide Beam, HH polarization. Five mosaic scenes per year. Flooding areas in 100 m resolution.
- Land use/land cover mapping
 - ↓ 128 FBD (HH+HV or VV+VH) + 128 FBS (HH). Vegetation types present in wetlands in 50 m resolution 2006 and 2010.

Milestones

- ☐ Ground station data information compiled and standardized (Done)
- ☐ Pre-processing: calibration and inter-calibration (Dec. 2012)
- ☐ Mosaic elaborated (Jan. 2013)
- ☐ Clasification (Feb. 2013)
- ☐ Validation (Feb 2013)
- ☐ Final products (March 2013)

Supporting to JAXA's global forest mapping effort



The project will provide ground data about flooding reports and natural forest areas.

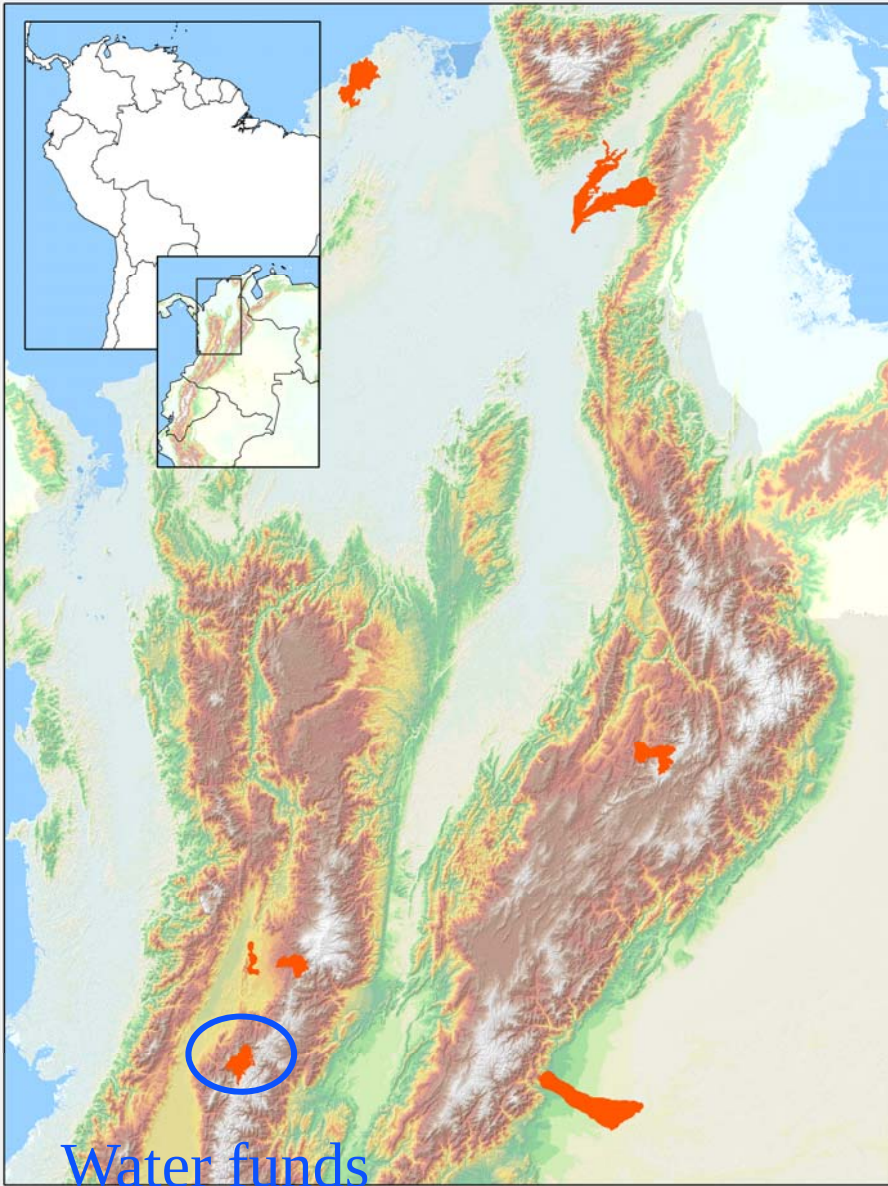
Three areas for the implementation of ecosystem based adaptation to climate change where data from permanent plots (to be defined)

Deliverables

Describe the planned output of your project.

- ☐ Flooding frequency maps
- ☐ Flooding area mosaics. Five per year (2006-2011)
- ☐ Land cover maps 2010 50 m
- ☐ Ground data from permanent plots

.



Sustainable Cattle Ranching and water funds projects

- ☐ 400 000 ha
- ☐ Land use conversion on private lands (PES)
- ☐ Caribbean (dry forest) andes region (humid forest and dry forest) and orinoco foothills (humid forest)

Project objectives and schedule

- Determine the spatial and temporal distribution of forest for deforestation analysis and corridor design. FBD HH+HV or VV+VH 25 m
- Valuation of environmental services. Land use/land cover mapping (2010) -> Hydrological modelling. 128 FBD (HH+HV or VV+VH) + 128 FBS (HH). For hydrological modelling
- Biomass and forest structure estimations as indicators of land use conversion. FBD (HH+HV or VV+VH) FBS (HH)

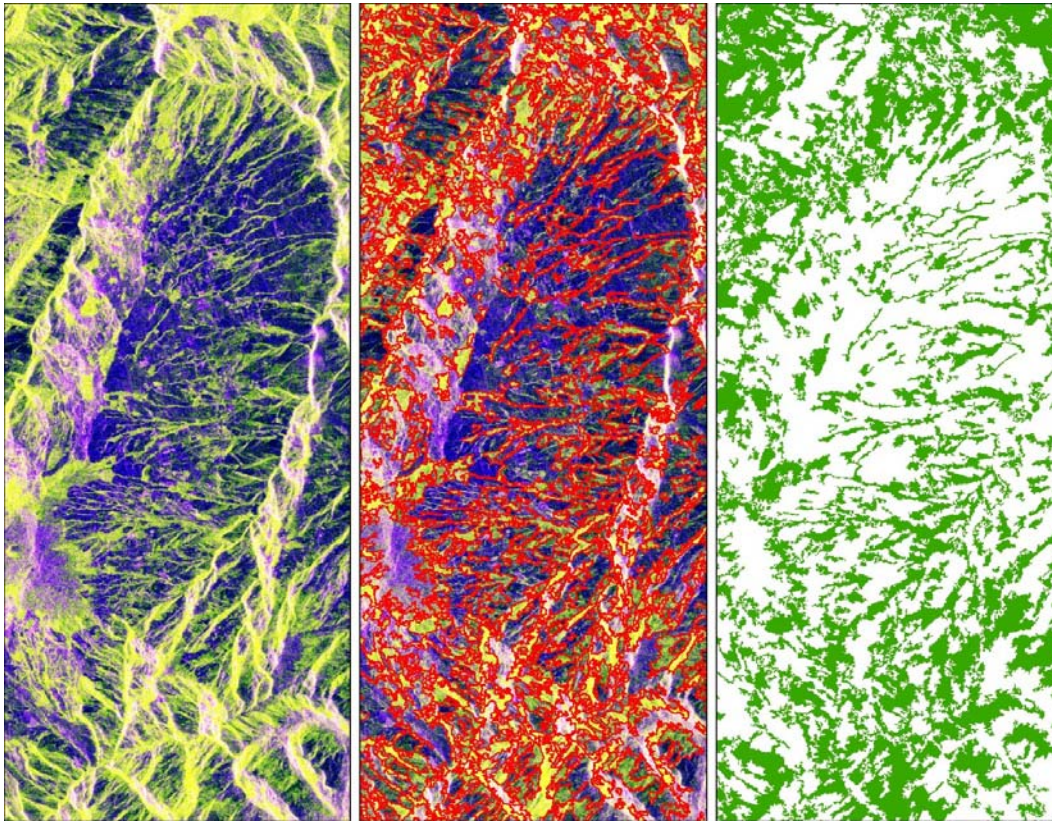
Milestones

- ☐ Forest ground data (Done)
- ☐ Biomass and structure ground data (March 2013)
- ☐ Forest/non forest map (March 2013)
- ☐ Biomass and structure maps (Nov 2013)

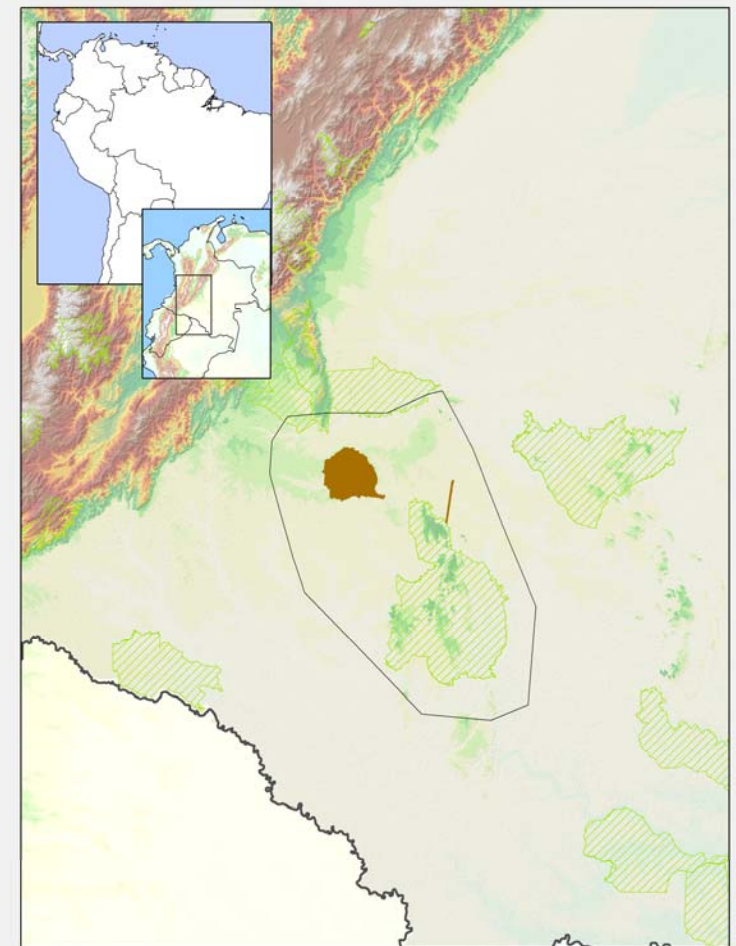
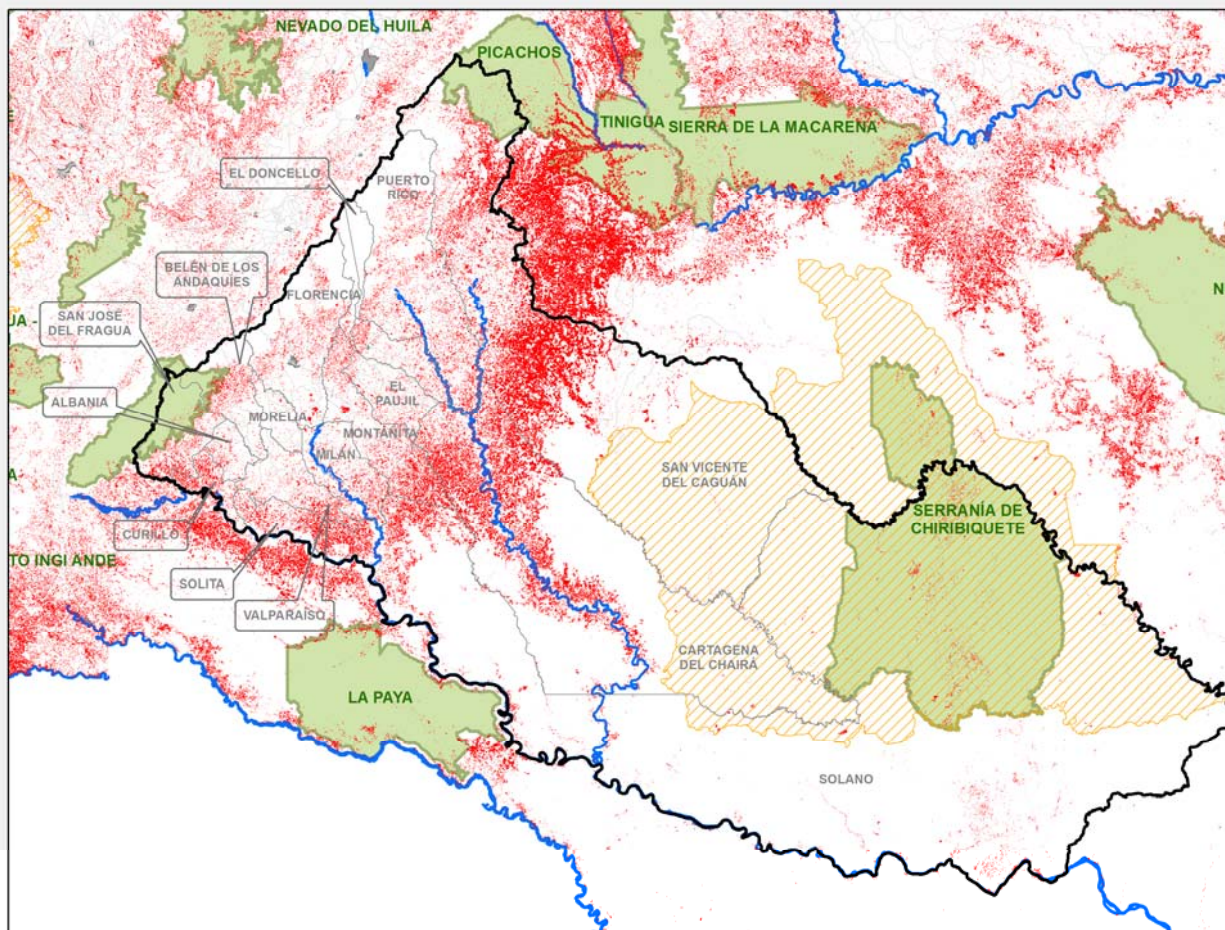
Supporting to JAXA's global forest mapping effort

The project will provide ground data about natural forest areas and biomass estimations.

Forest/non forest and biomass maps



Caqueta a deforestation hotspot



Project objectives and schedule

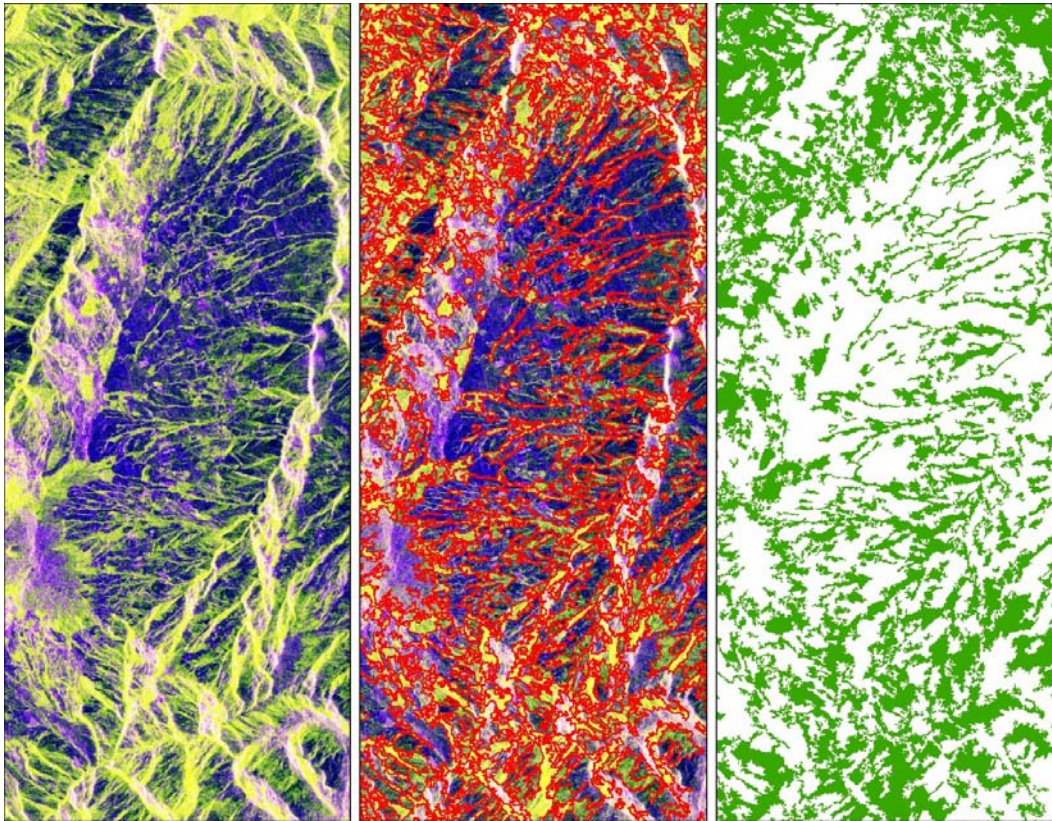
- Determine the spatial and temporal pattern of land use and land cover change inside and near to a protected area 2007-2009-2010.
 - ↓ 240 FBD and 240 FBS
- Applications of REDD for sustainability and conservation of indigenous territories
 - ↓ 20 FBD and 20 FBS. GLAS/LIDAR 2008.

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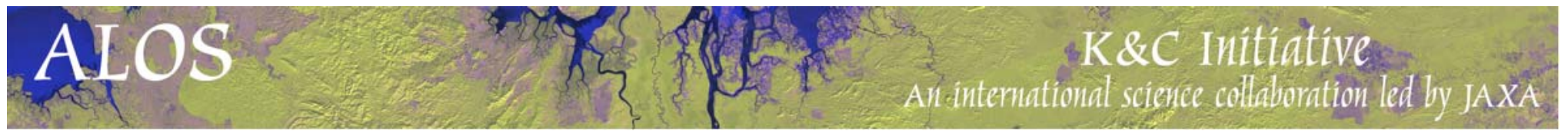
Supporting to JAXA's global forest mapping effort

The project will provide ground data about natural forest areas.



Land use/ land cover and biomass maps

LIDAR??



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Thanks!!