

Product Delivery Report for K&C Phase 3

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Conservando la naturaleza.
Protegiendo la vida.



BRIDGING SCIENCE AND POLICY SINCE 1989



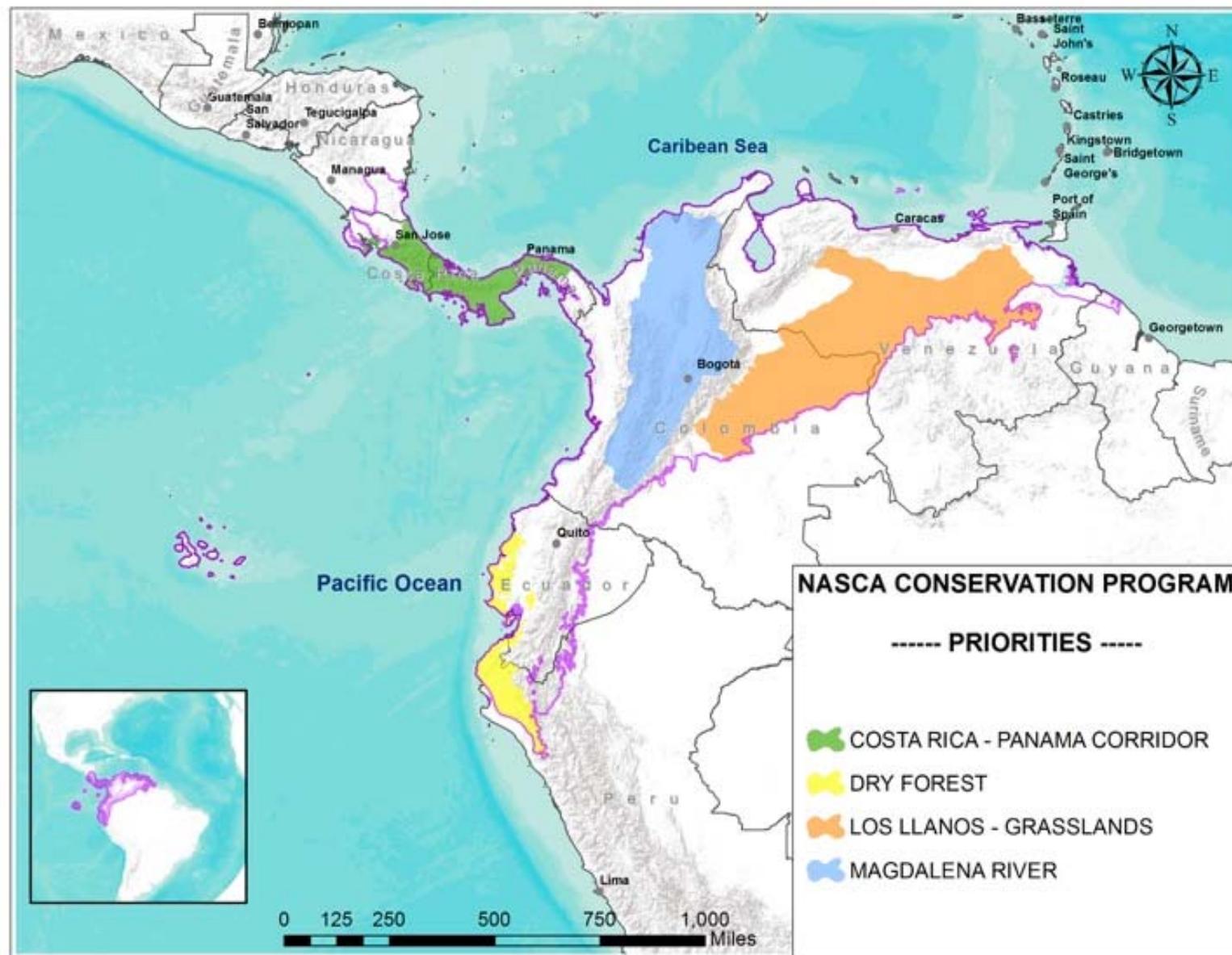
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Project objectives

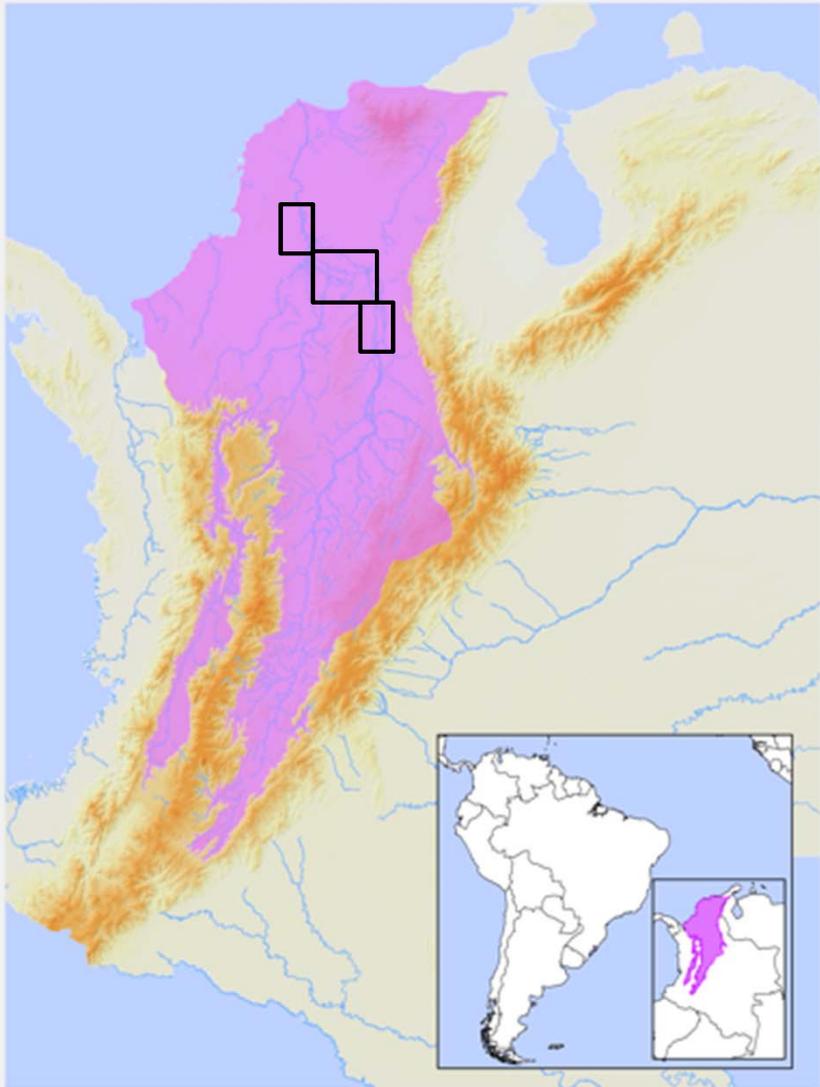
- Support **watershed management** plan that restore biodiversity and critical ecosystem services for people living on the Magdalena basin (**DONE**)

Where We Work

- 6 Countries
 - ↓ Costa Rica
 - ↓ Panama
 - ↓ Colombia
 - ↓ Venezuela
 - ↓ Ecuador
 - ↓ Peru



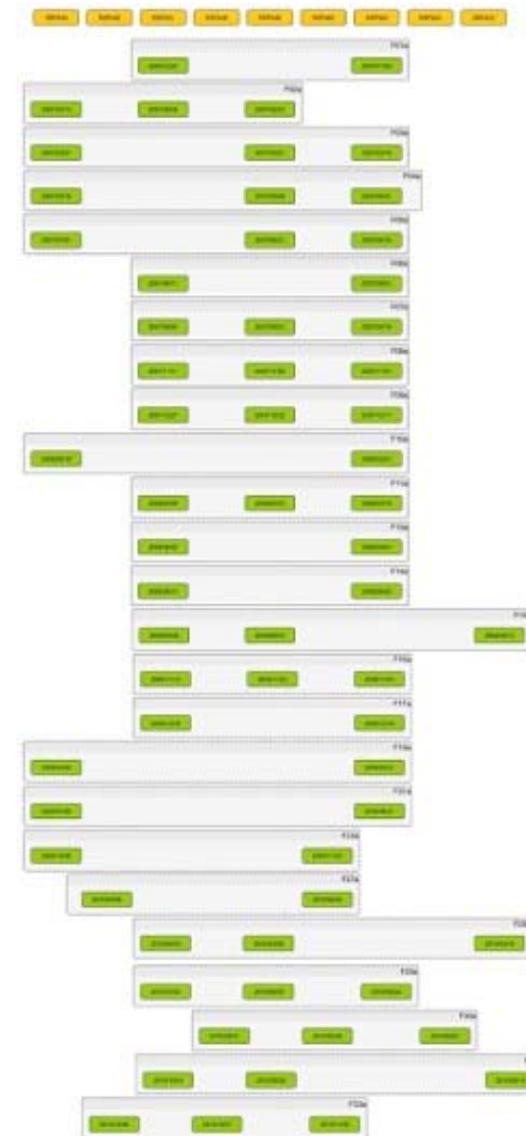
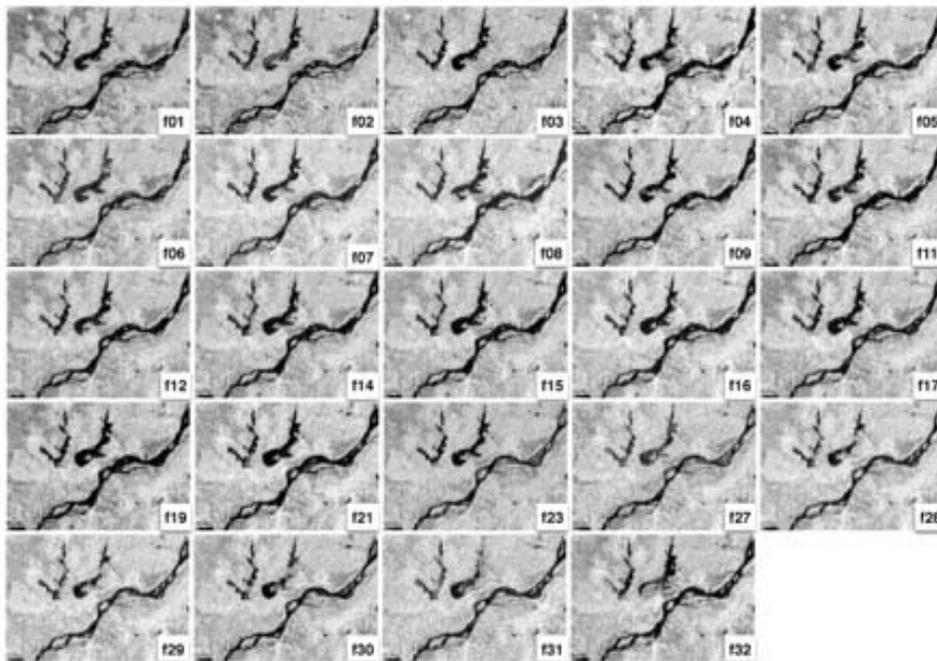
Spatial and temporal flooding patterns: Magdalena-Cauca Basin



- 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
- 2010-2011 flooding levels reached highest levels in 109 years
- Consequence: Economic toll stimated in 2% of GDP
- Hydropower and navigability projects

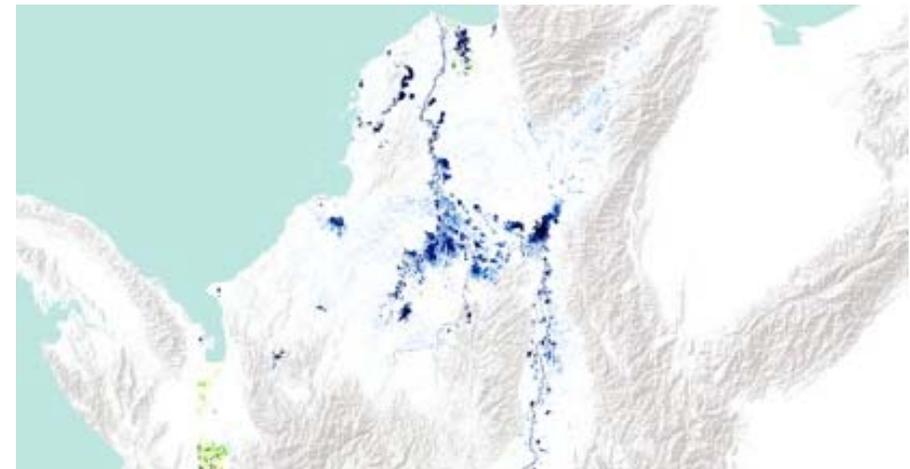
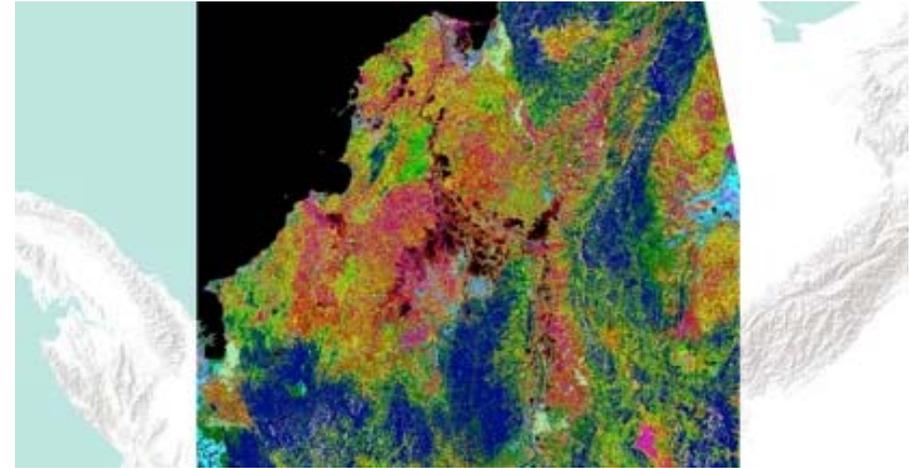
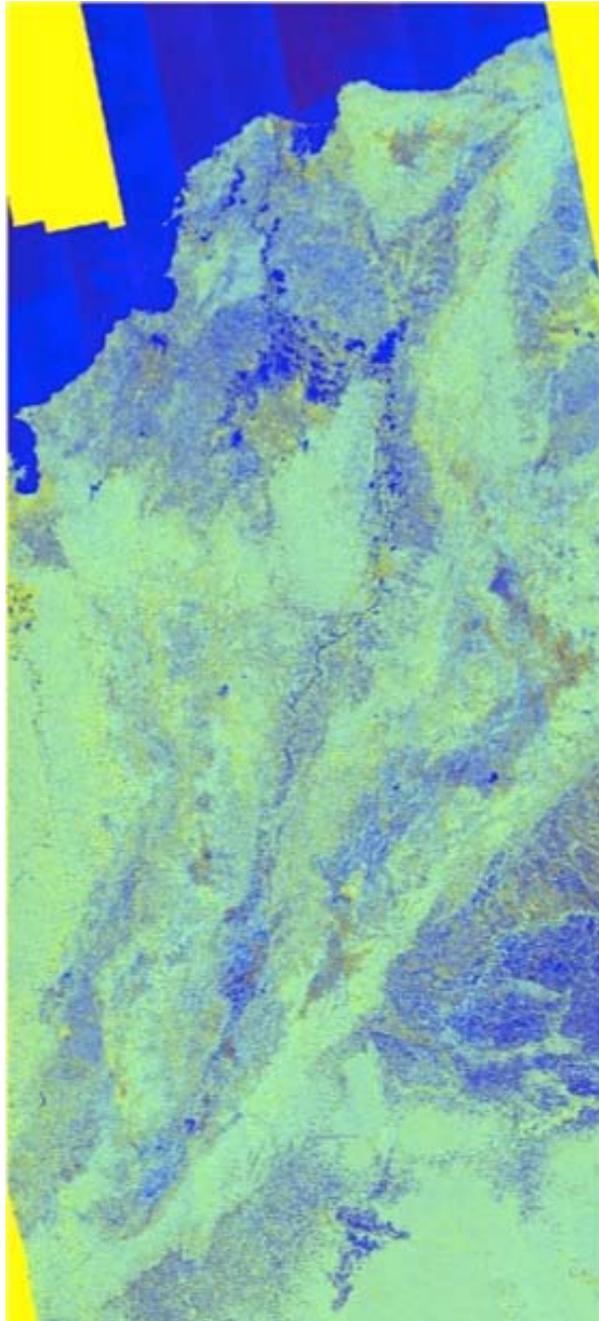
Magdalena Basin

- Determine the spatial and temporal pattern of flooding in the Magdalena-Cauca basin.
 - ↓ Wide Beam, HH polarization. 28 mosaics.
Flooding areas in 100 m resolution.



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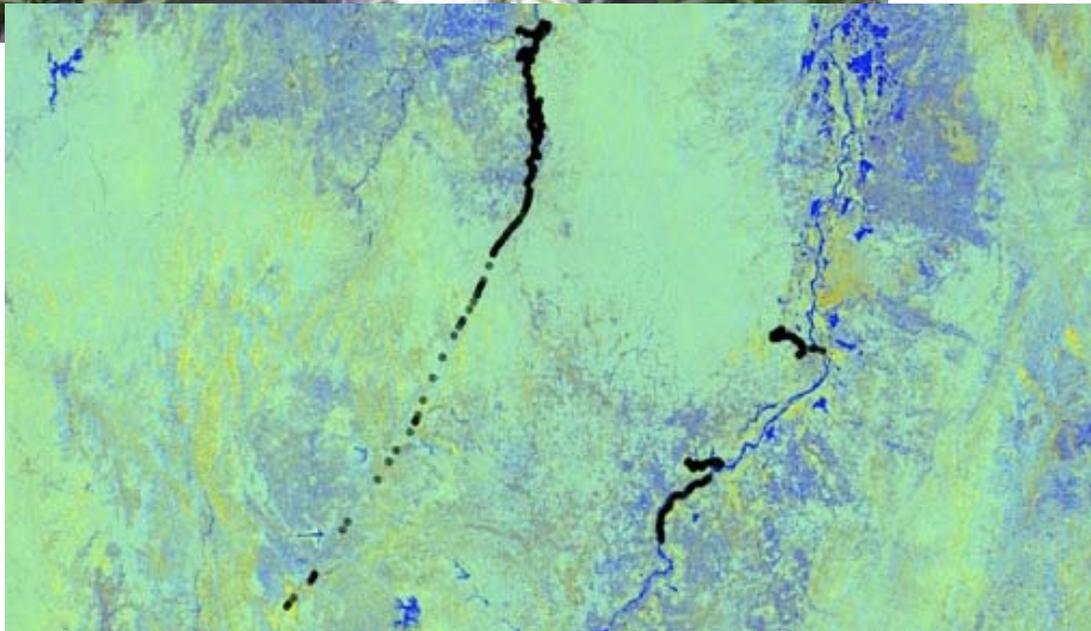
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Deliverable	
Flood frequency Magdalena Basin 2007-2010	DONE
Vegetation types 2008-2010	DONE
Ground truth data (geo tagged photos)	DONE
K&C 3rd Phase Report	DONE
Technical report (Quiñones 2013)	DONE

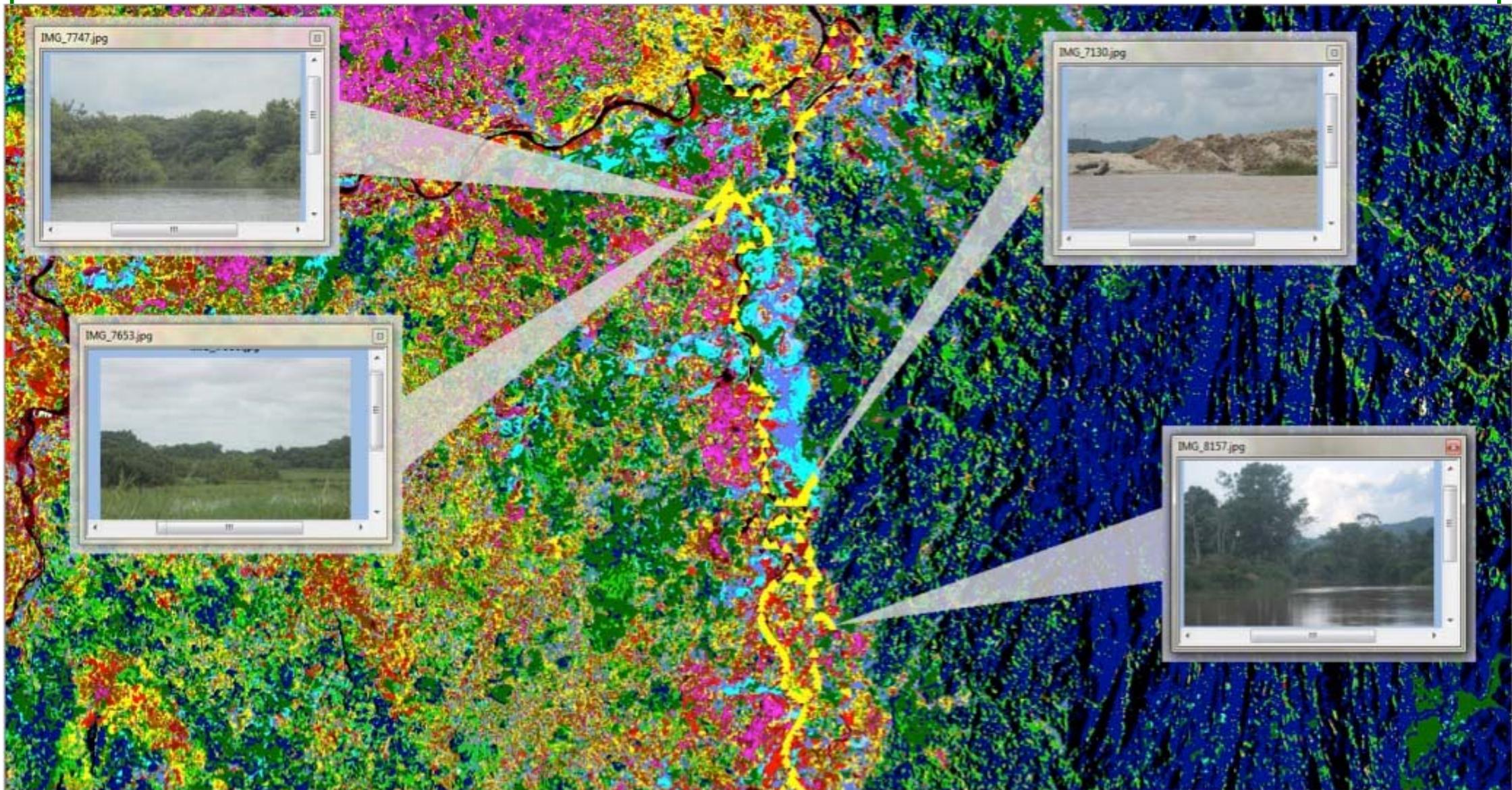
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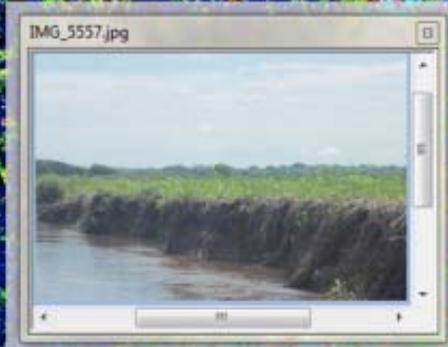
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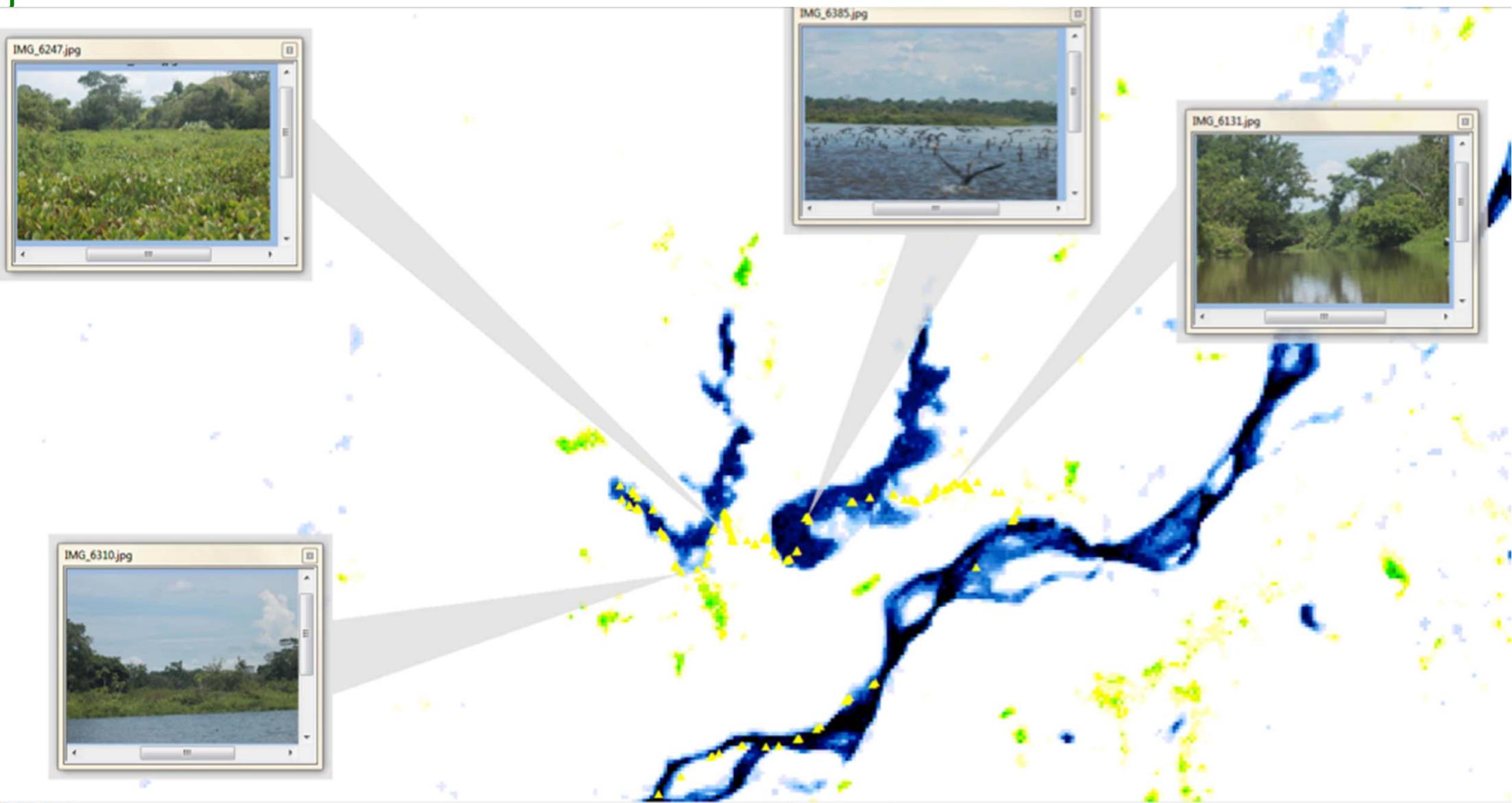
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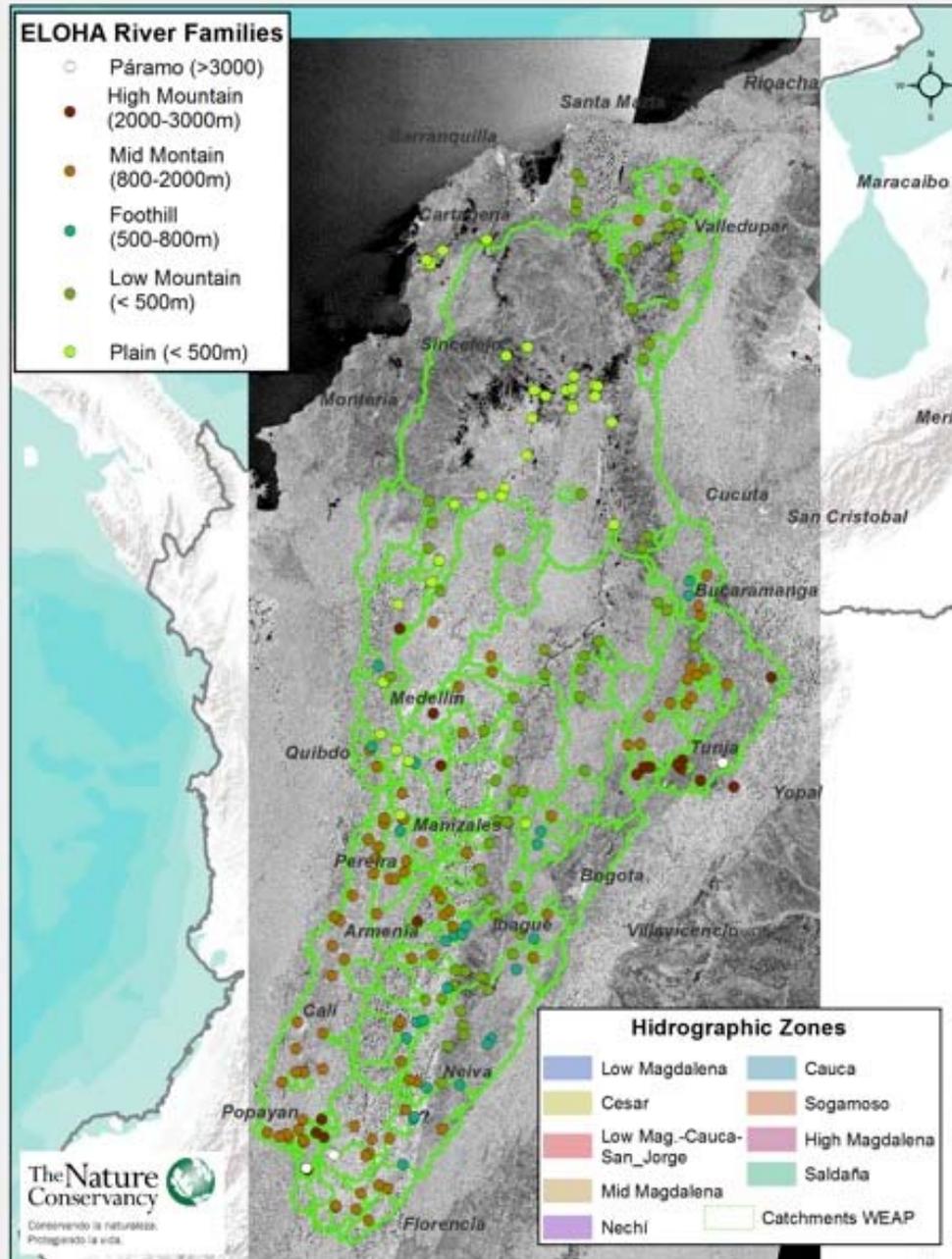


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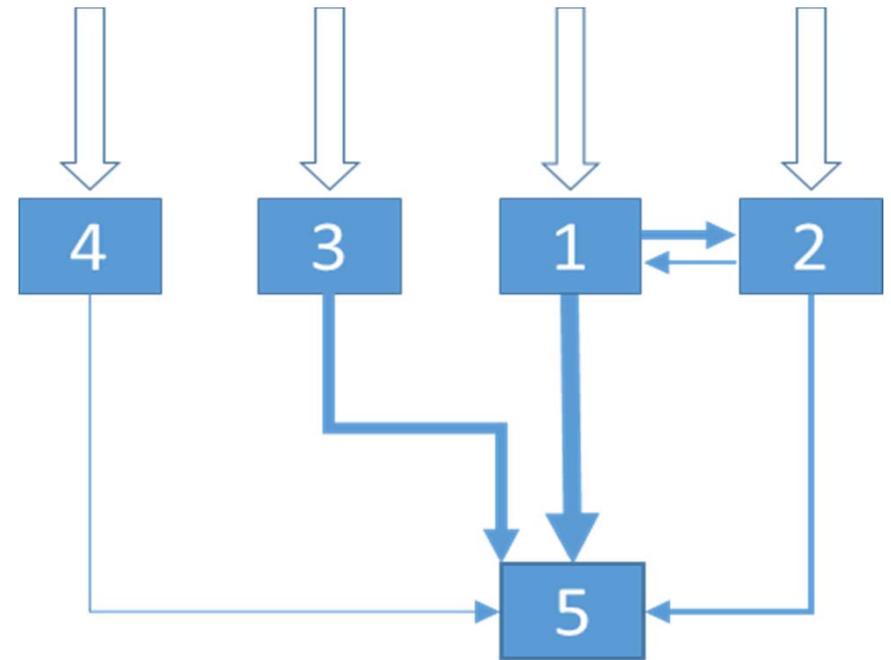
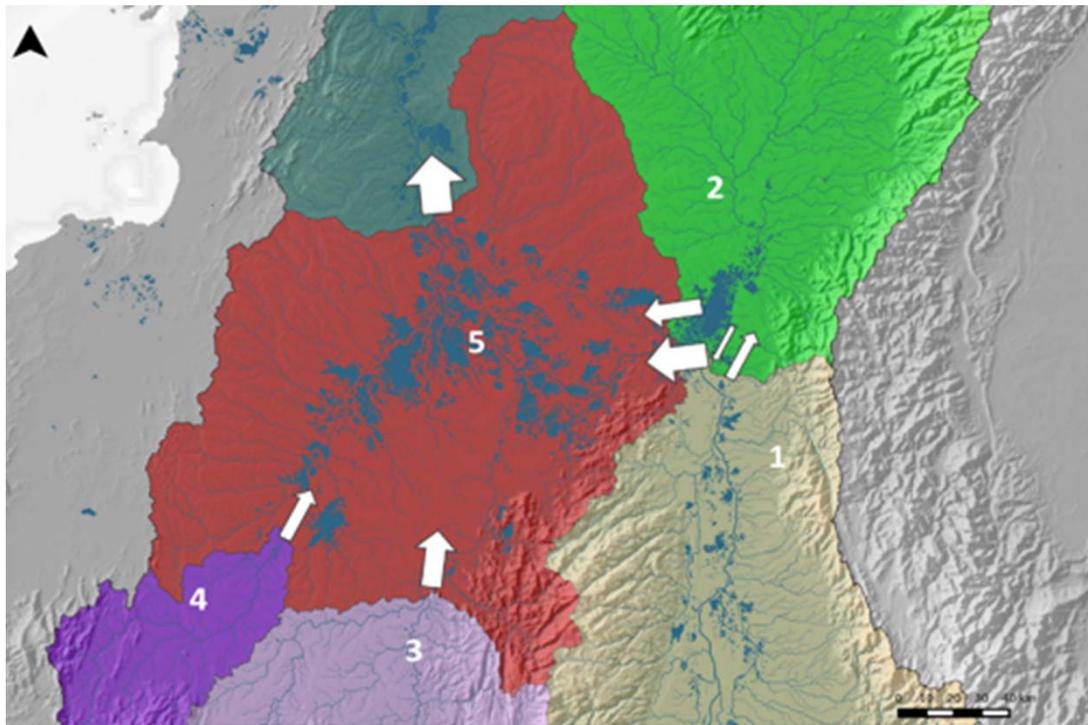
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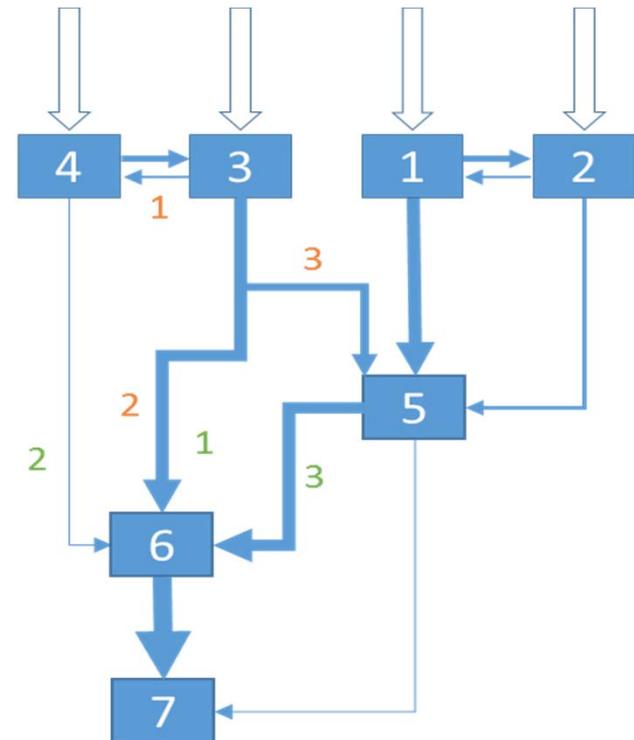
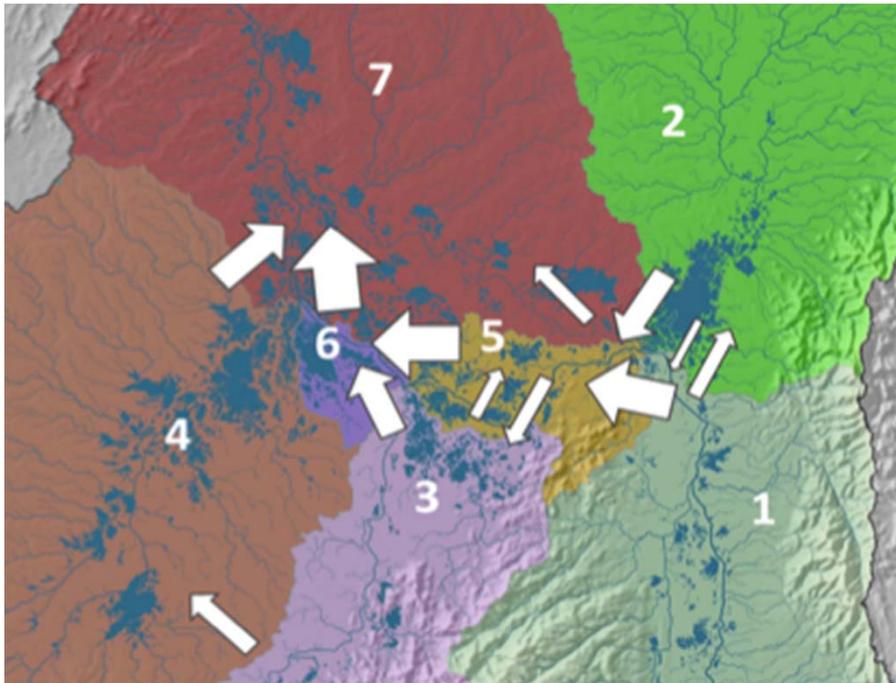
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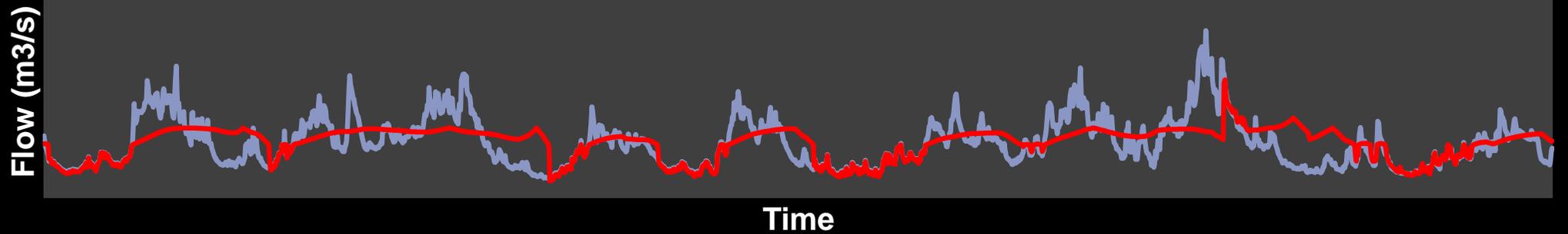
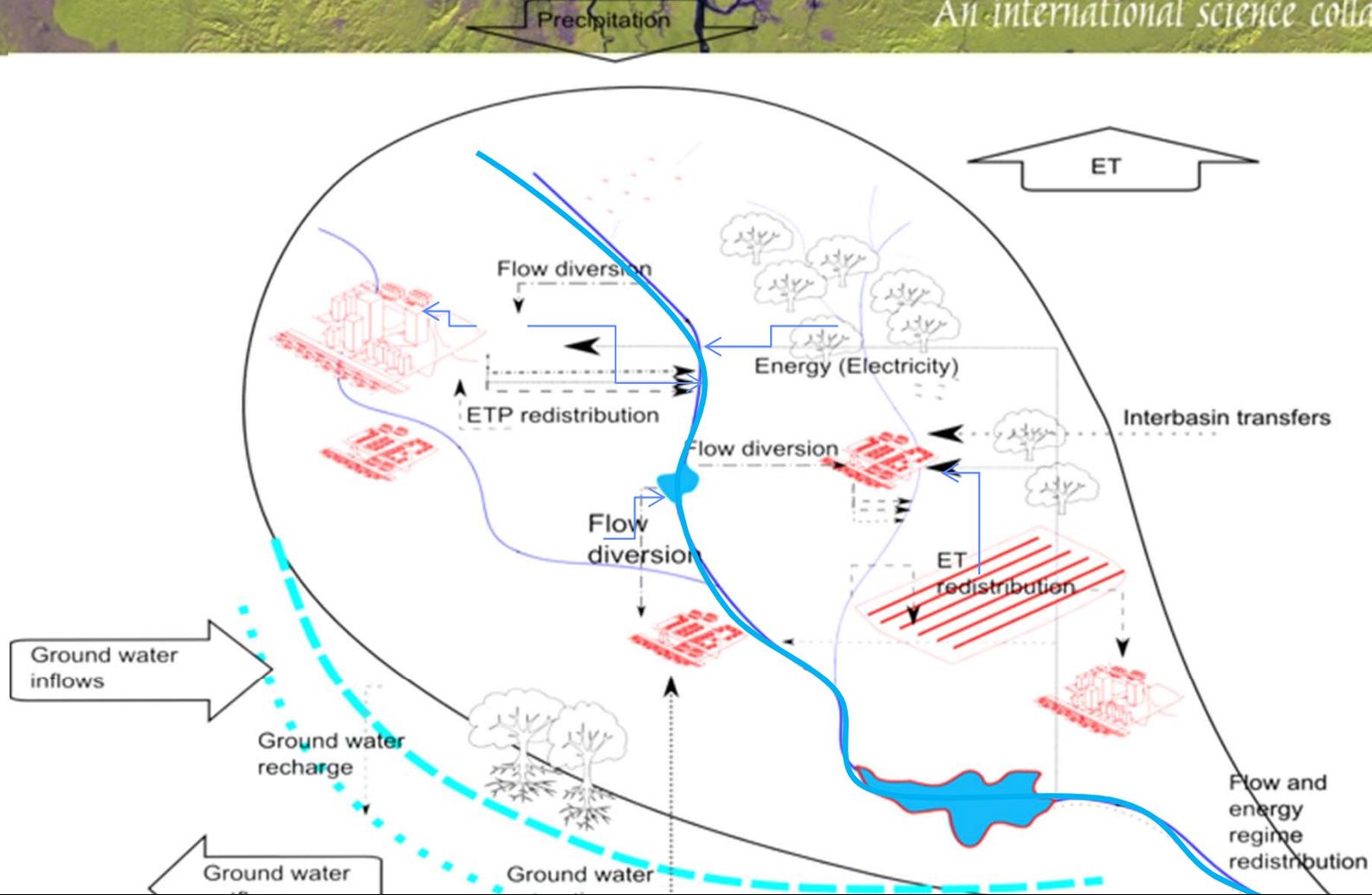
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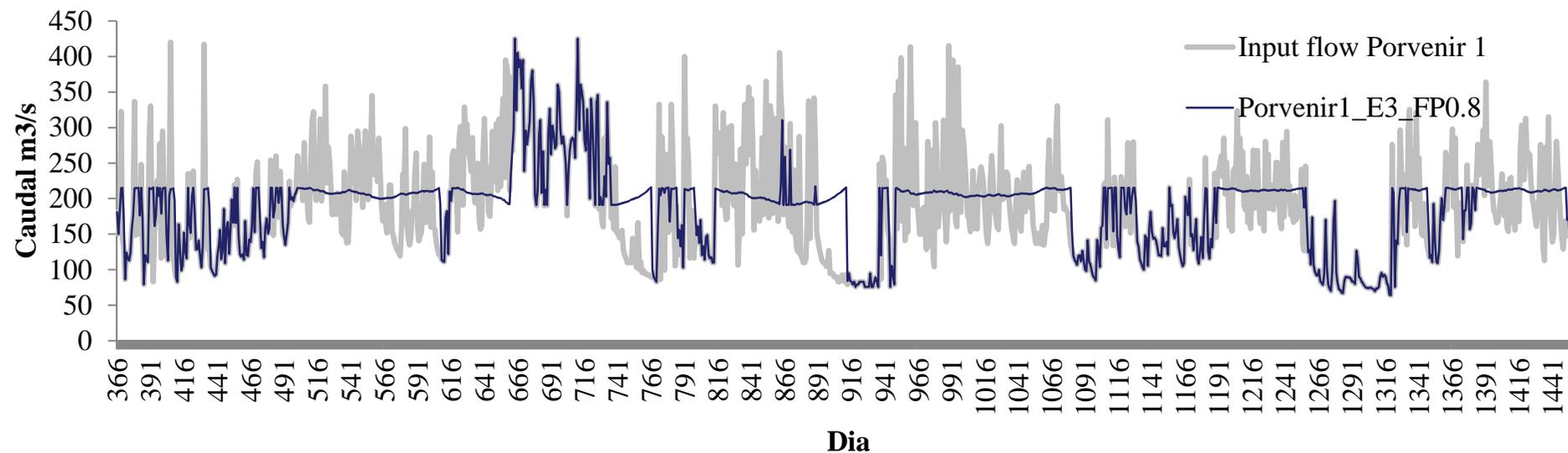
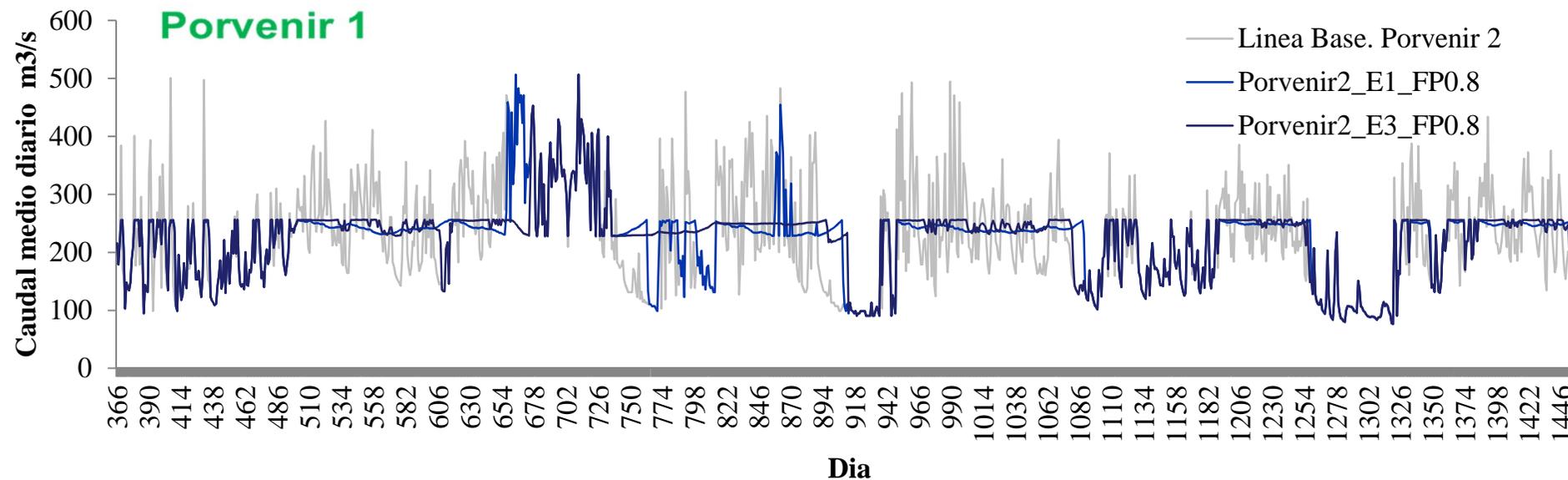


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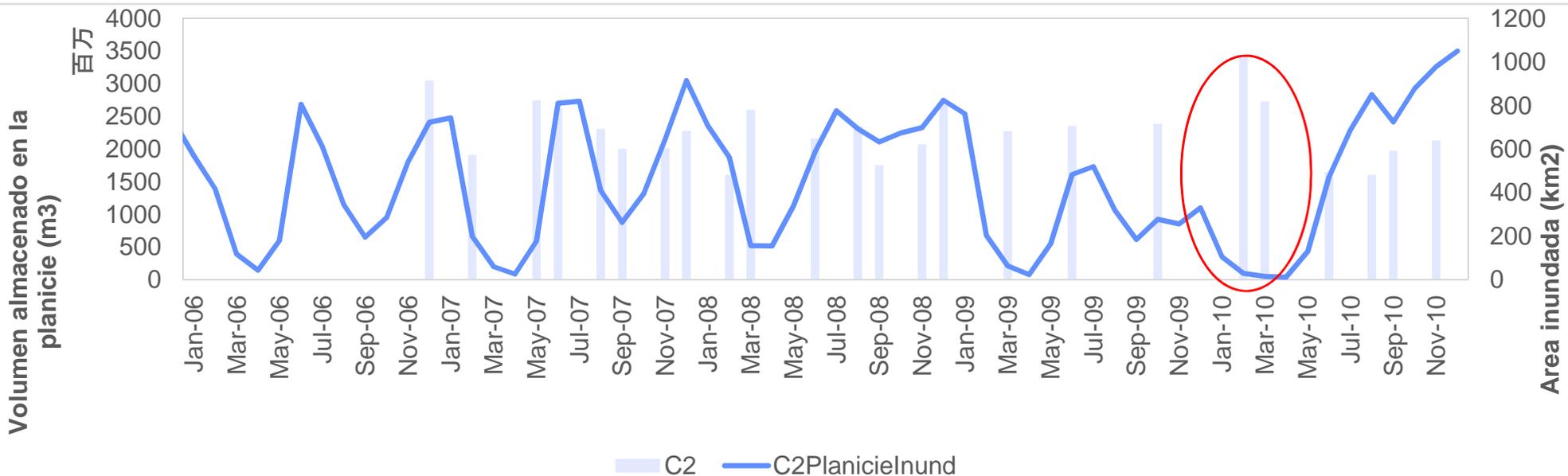
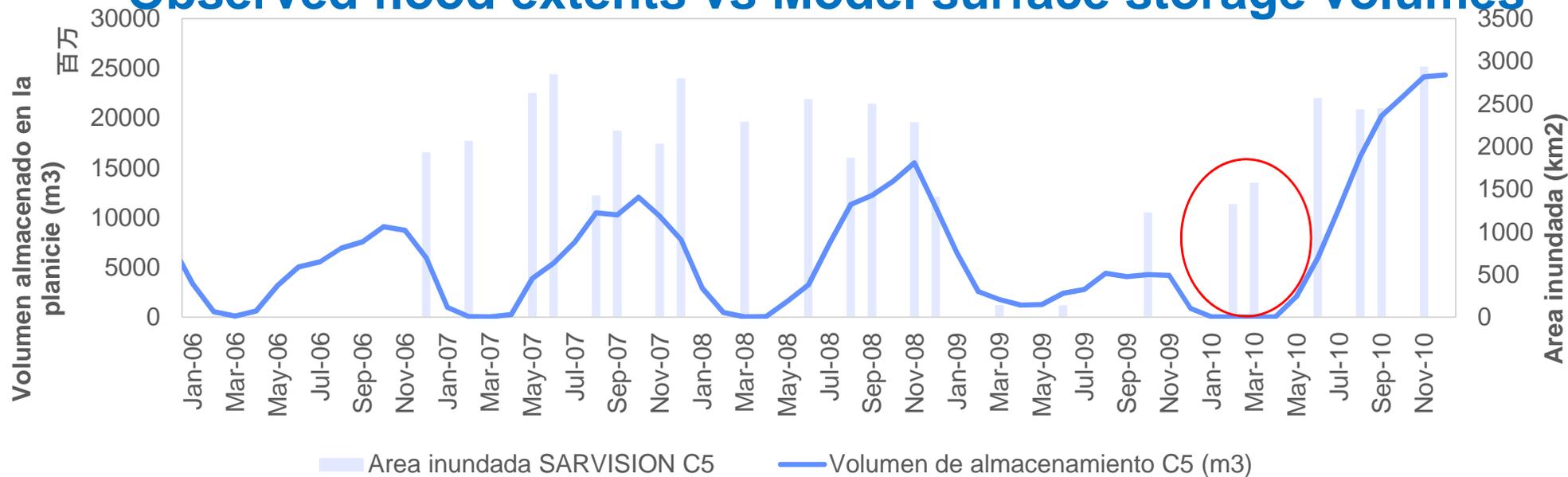
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Observed flood extents vs Model surface storage volumes



What next? 4th Phase

- **ScanSAR HV mode. Forest monitoring as early warning system. One pilot area in Caqueta**
- **Biomass estimation using FB mode on different vegetation types. Sustainable Cattle Ranching Project.**
- **Flood dynamics on Magdalena (Colombia), Ogooué (Gabon) and Tapajós (Brazil). Great Rivers Partnership**

THANKS!!!

- Stockolm Enviroment Institute**
- Corantioquia**
- IIAP**
- IDEAM**
- Humboldt Institute**
- Sarvision**
- Julio Marin**
- Great Rivers Parternship**
- TNC Colleagues**

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