

The Andean Amazon Rivers Analysis and Management (AARAM) Project



Investigators

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Additional Participating Institutions

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Agência Nacional de Energia Elétrica (ANEEL), Brasilia

Potsdam Institute for Climate Impact Research, Germany

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM), Bogotá

Instituto Nacional de Meteorología y Hidrología (INAMHI), Quito

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Instituto del Bien Comun, Lima

Pro Naturaleza, Lima

Proterra, Lima

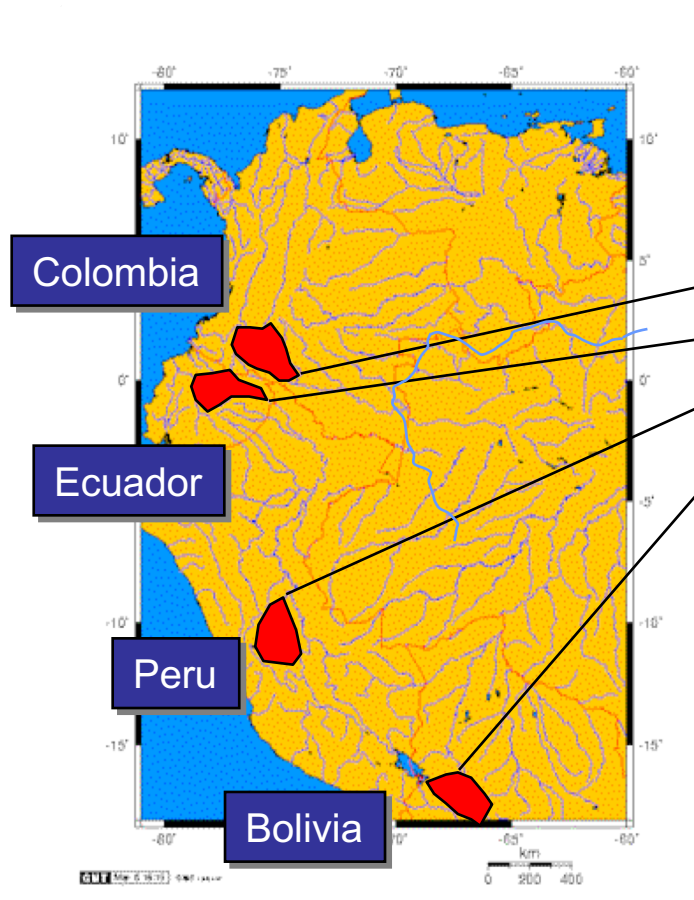


- Develop a quantitative understanding of the dynamics of Andean Amazon river systems as a function of land-use and climate variability.
- Educate researchers and the public in the connections between human actions and water quality and abundance.
- Collaborate with local communities in the formulation of water management programs.



- Determine the current spatial distribution of land use and land cover (vegetation, soils, geomorphology, etc.) in the region.
- Quantify the temporal fluxes of water, sediments, and solutes at points representative of the spatial variability of land use and land cover.
- Determine the processes (natural and anthropogenic) which control the spatio-temporal variation in these fluxes.
- Translate project findings into quantitative models which can be used for the effective management of land, water, and human resources of the region (considering changes in climate and land use).

Pilot Catchments



AARAM research activities are conducted in pilot catchments in each of the Andean Amazon Nations

- Río Caquetá - Colombia
- Río Napo - Ecuador
- Río Pachitea - Peru
- Río Alto Beni - Bolivia

Main research activities are:

- **Landscape Analysis**
- **Field Campaigns**
- **Computer Modeling**



- Florida International University (OC3 155Mbps)
 - AMPATH
 - Internet II
- Escuela Politecnica Nacional (2.5Mbps)
 - ISP Cyberweb - Telia
- Universidad de los Andes (2.5Mbps)
 - Teleglobe
- Universidad Nacional Agraria La Molina
 - ??
- Universidad Mayor de San Andres
 - ??



Basin >> Subbasins >> Hydrotops



The Soil-Water Integrated Model (SWIM) - PIK

- Simulates the hydrological cycle, erosion, vegetation growth and nutrient transport
- Input data include elevation (DEM), land use, soil parameters, and climate parameters

Applications - Training and Education

- Distance learning - Biogeochemistry / Remote Sensing
- Nine local high schools in Peru participate in the project via the GLOBE program.

