ACTO

Amazon Cooperation Treaty Organization

DEVELOPMENT AND INTEGRATION OF ADAPTATION TO CLIMATE CHANGE: TRANSBOUNDARY STRATEGY FOR THE IWRM FOR THE AMAZON BASIN

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General Secretary ACTO

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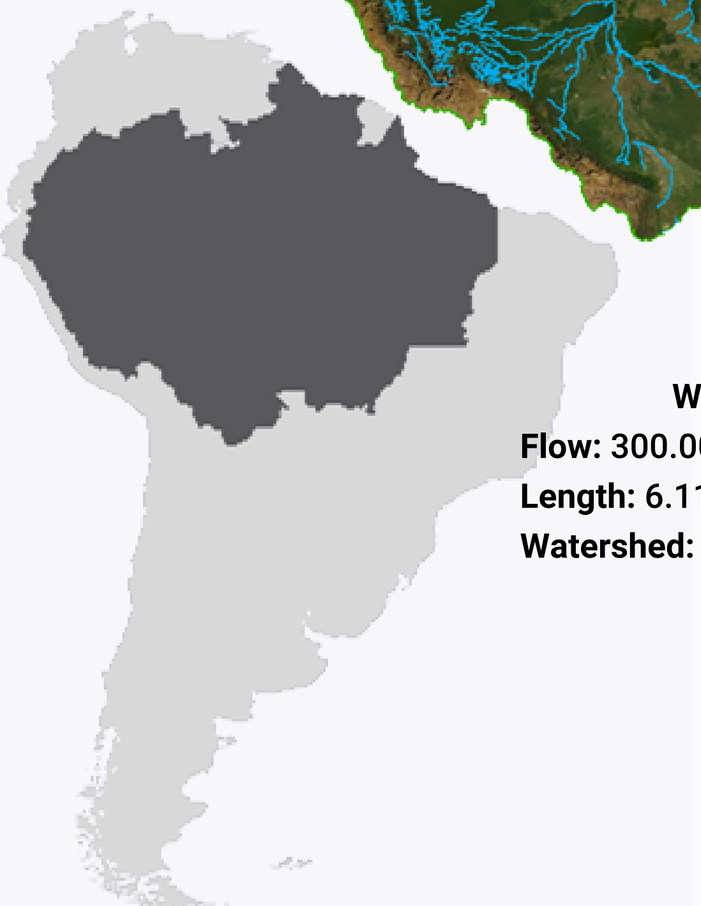
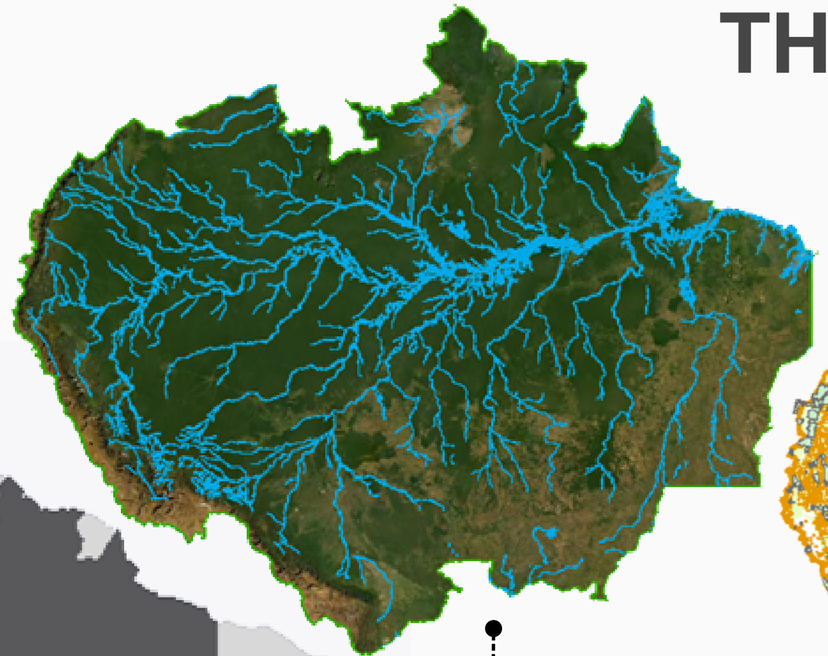
THE AMAZON



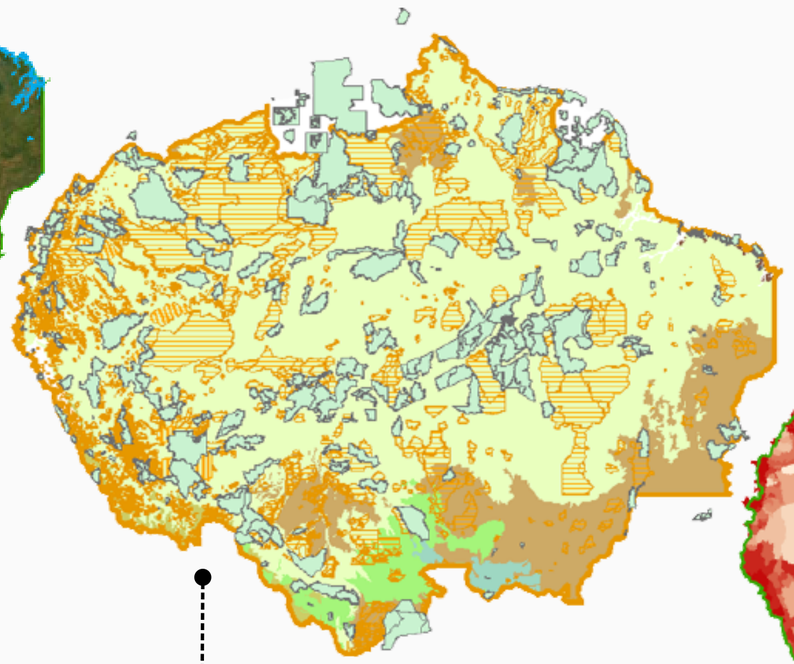


Water Network

Flow: 300.000 m3 /s

Length: 6.118.000 km2

Watershed: 637 level 4



Ecoregions, PAs and IT

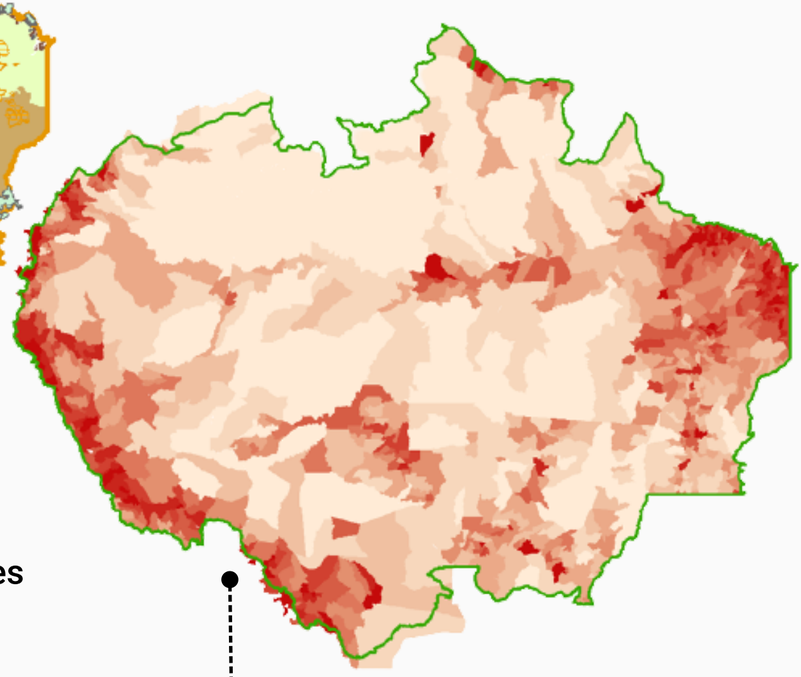
Indigenous Peoples: 420 Indigenous Territories

Biodiversity: 50% of the Planet

30.000 species of vascular plants

350 species of mammals

300 species of fish



Population

Number of Inhabitants: 40 M

Agricultural: 53%; Trade: 31%

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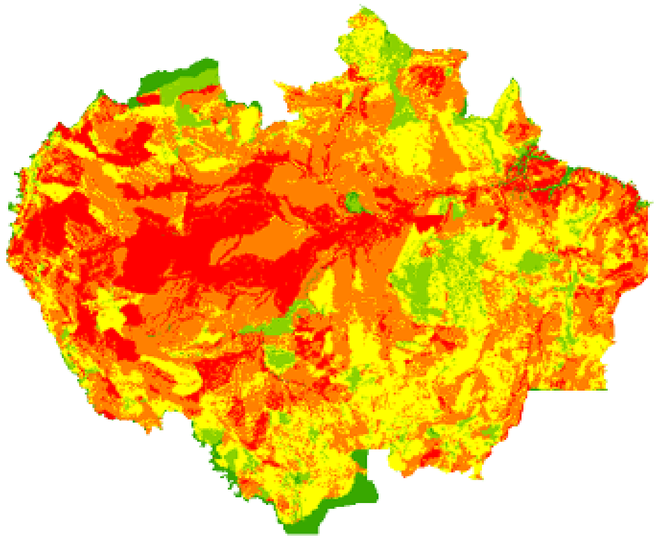
Atlas of Hydroclimatic Vulnerability (ACTO, 2021)

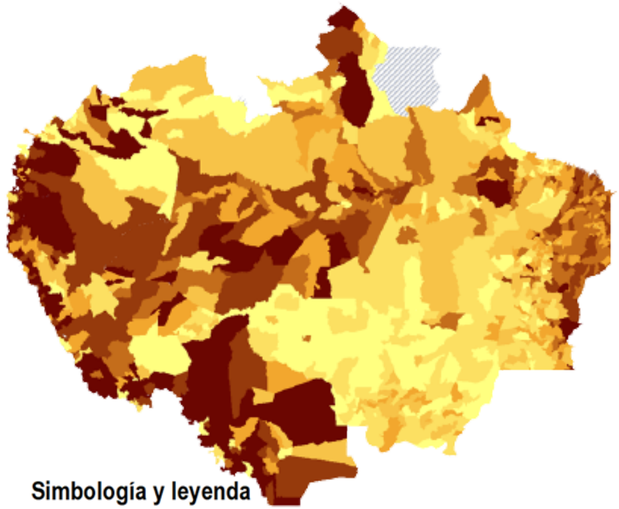
NIVELES DE VULNERABILIDAD Y SENSIBILIDAD

Color	Nivel	Valor
	Muy alta	5
	Alta	4
	Media	3
	Baja	2
	Muy Baja	1



Flood Vulnerability

- The occurrence of disasters reaches 50% in the Andean Amazon and even increases to 51% in the Brazilian Amazon.
- Affecting productive systems and livelihoods at different scales and different geographic areas (Mainly flood plains and headwaters).



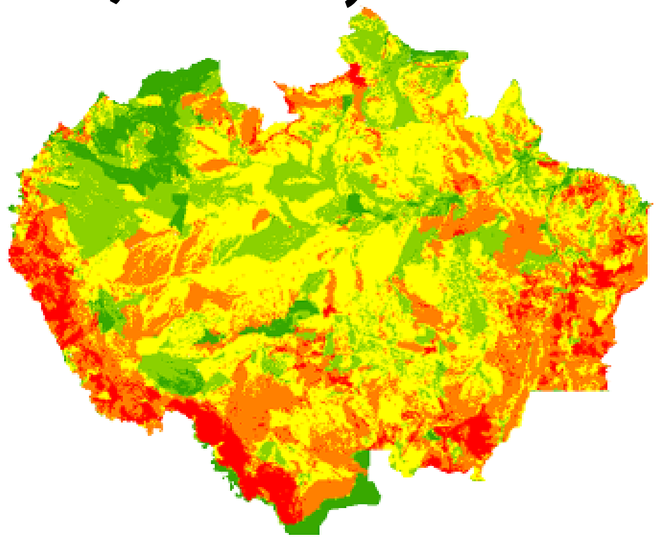
Simbología y leyenda

Pobreza

Porcentaje (%)

- 68,21 - 100,00
- 58,15 - 68,20
- 53,24 - 58,14
- 46,76 - 53,23
- 39,76 - 46,75
- 32,50 - 39,75
- 0,00 - 32,49
- Sin información

Poverty



Drought Vulnerability

- 19% of disasters in the Region are associated with drought, increasing this value to 46% in the Brazilian Amazon.
- The greatest impact of droughts on the Region occurs in the livestock sector with 58% and on crops and forests with 6%.
- The impact of droughts on the population is 36% of the total damage.

Increase of 3 to 4 ºC in temperature is expected toward the XXI century (2080-2100)

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The main impacts of climate variability and change in the Amazon Basin

TABLE 5. EXTREME HYDROCLIMATIC EVENTS.

IMPACTS / CONSEQUENCES	
Environmental	Socio-economic
▪ Disruptions in ecosystem food chains ▪ Limited navigation ▪ Water pollution ▪ Changes in the physicochemical characteristics of water because of increased whole solids in suspension ▪ Loss of biodiversity ▪ River fauna poisoned by mercury ▪ Loss of crop area ▪ Loss of landscape diversity	▪ Public health risks ▪ Rising food prices ▪ Economic losses due to transportation costs ▪ Impact on ecotourism ▪ Economic losses related to productive activity ▪ Loss of human life

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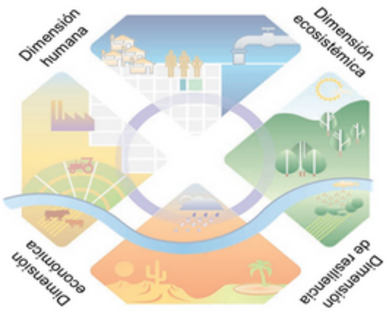
REGIONAL FRAMEWORK FOR THE MANAGEMENT OF THE WATER RESOURCE

	ECOSISTEM KNOWLEDGE	GOVERNANCE STRUCTURE	REGIONAL MANAGEMENT	DEMONSTRATIVE ACTIONS	REGIONAL MONITORING
SUPERFICIAL WATER / GROUNDWATER	**Multisector model Nexus for the Amazon Basin (ACTO and IDB)**				
	Multisector systemic analysis of the Amazon Basin				
	Technical cooperation (ACTO and IDB)				
	Analysis of water availability for the provision of basic services		Strategic plan for the provision of drinking water, basic sanitation and solid waste		
	Second phase Amazon Project: Regional Action in the Area of Hydric Resources (ACTO and ANA-Brazil)				
	Regional following-up to the SDG 6 and 13. Study of the water quality in the Amazon Basin.		Formulation of protocols for the exchange of information on water quantity and quality		Constitution of the Amazon Hydrological Network (AHN) and the Regional Water Quality Monitoring Network (RWQMN)
	Project for the Implementation of the Strategic Action Program – SAP (ACTO, UNEP, GEF)				
		Regional permanent mechanism for the coordination of IWRM Coordination with countries' National Water agencies	Methodologies, standards and good practices. Technical guidelines and norms for the water use	Nature based solutions, climate change adaptation, and early monitoring alerts	Strengthening of the AHN, RWQMN and development of the Erosion, Transport and Sediments Monitoring Network (ETSMN)
	Project for the Environmental Protection of the Groundwater of the Sedimentary Aquifers of the Amazon Region (search of finance)				
	Scientific studies and aquifer mapping		Technical guidelines for groundwater management and well drilling	Municipal and transboundary pilot projects	Groundwater monitoring network



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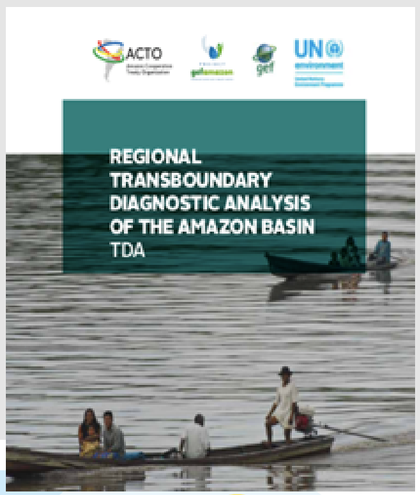
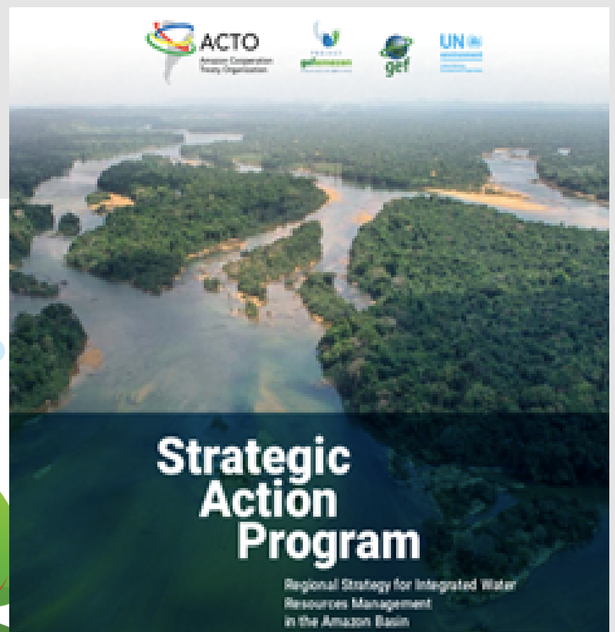
ACTIONS

Strategic Action Program (SAP)

- The SAP was developed as part of a regional initiative implemented by UNEP and executed by ACTO from 2011 – 2018 called as “Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin, considering Climate Variability and Climate Change”.
- The main output of the project was a basin-wide Transboundary Diagnostic Analysis (TDA) and the Strategic Action Program (SAP), which was endorsed by all 8 Member Countries of the ACTO.





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ACTIONS

Within the framework of the SAP Implementation (GEF-ACTO-UNEP)

Thirteen national projects are being implemented focused on strengthening the capacity of local governments and communities to respond to extreme hydroclimatic events and the impacts of climate change:

- Early warning systems in vulnerable Amazonian sub-basins and border regions.
- Nature-based protection measures for coastal zones and headwaters.
- Alternatives for the supply of water in urban centers and communities facing the consequences of the retreat of glaciers.
- Improved water security through groundwater.

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ACTIONS

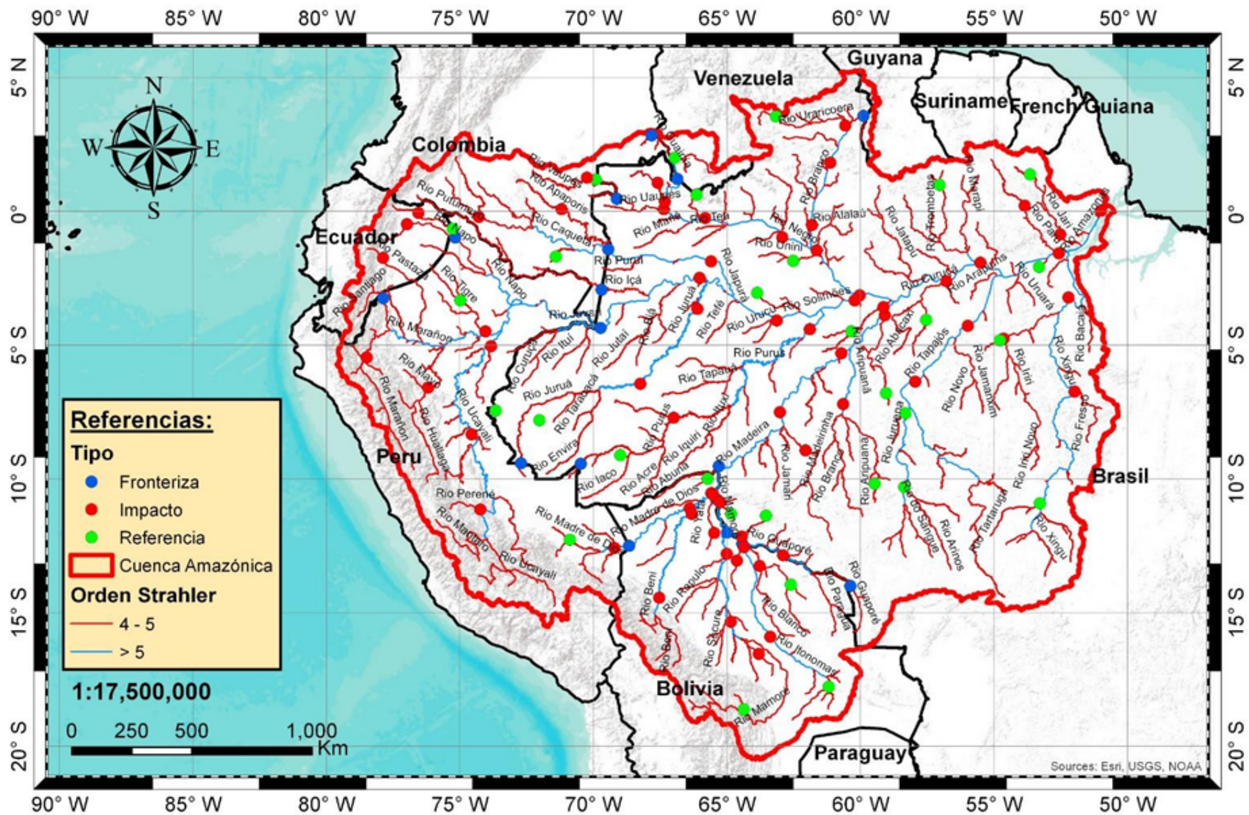
Amazonas Project: ABC and ANA

Implementation of shared networks for hydrometeorological and water quality monitoring

Evaluation of the SDG-6 and 13 indicators

Permanent technical training

Monitoring stations proposal



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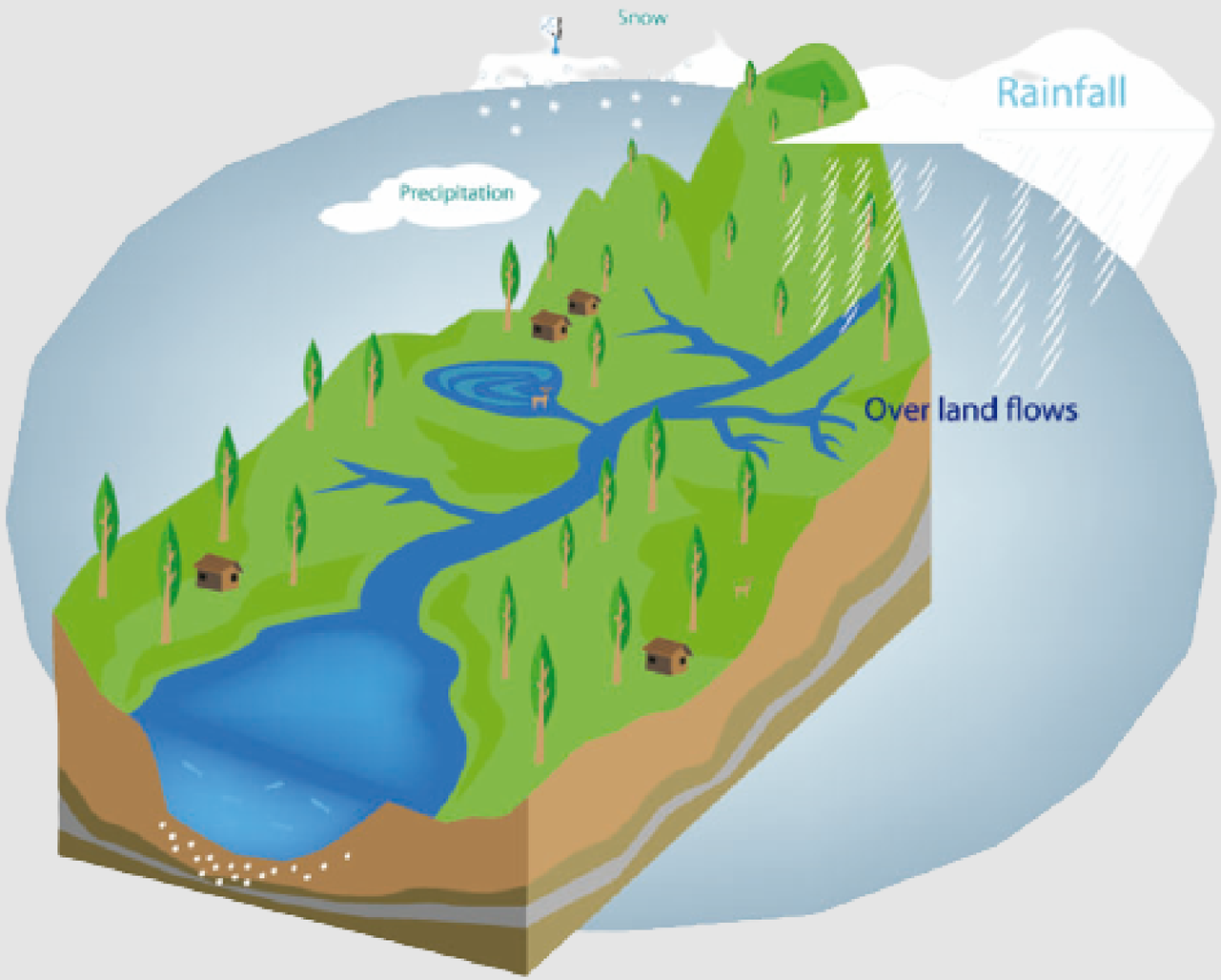
ACTIONS

Multisectoral planning with adaptation and resilience: Applying the nexus model

- Generate new information gaps and sources of uncertainty that can improve multisectoral planning efforts
- Complement existing regional efforts with information and will help identify what priority actions are needed.
- It will generate new technical capacities for those responsible for water management and other identified sectors.



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