



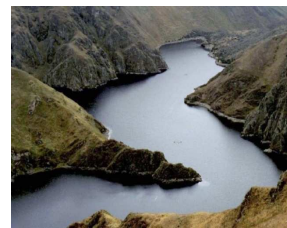
## Adapting to Climate Change in Mountain Regions

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Ministry of Environment - Peru

### Key Issues

- Background on climate change predictions for Peru
- Mountain ecosystems severely impacted
- Communities and livelihoods already affected
- How nature-based adaptation interventions might help reduce vulnerability
- How ecosystem-based adaptation is fitting in with local and national government's broader adaptation strategy



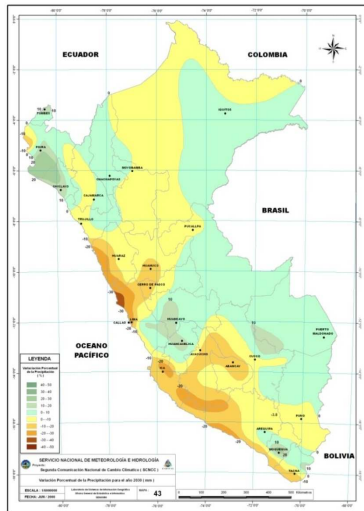


## Peru: a mountain country

Mountain ecosystems add to one third of Peruvian territory



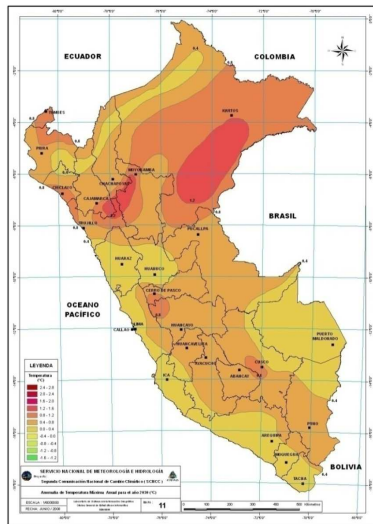
background on climate change predictions for Peru...



Distribución espacial del cambio de precipitación (%) anual y la precipitación extrema percentil 95 al 2030 - CCSM/RAMS-SENAMHI

## climate change scenarios at the national level

- Rain regime will be altered the next 30 years in most of the territory.
- Average increase of max. 1,6 °C (0.53°C/decade), and min. 1.4°C to (0.47°C / decade).
- Water availability in 2030 will decrease in 6% in the Pacific basin, where 70% of population is located..




Distribución espacial del cambio (°C) de temperatura máxima anual y de su percentil 90 al 2030 - CCSM/RAMS-SENAMHI

## climate change scenarios at the national level

- Increase of T°: Coast, north and central Highlands, north Amazonia and the south of the country.
- Increment of frequency of moderate and intense rains in the coast and northern Highlands; and decrease in central Highlands.



mountain ecosystems are severely impacted


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**Threats:**  
**588 km<sup>2</sup> reduction of glaciers in 36 years (25%)**

Perú  
 2006 **1.370 km<sup>2</sup>** 1970 1.958 km<sup>2</sup>

**Fast retreat of glaciers in the Cordillera Blanca of Peru**

Retreat in 15% since 1970

Fuente: Grid Arendal, PNUWA, 2005


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## Glaciers in the Tropical Andes

- 71% of the tropical glaciers of the world are located in Peru
- Glaciers retreat is reaching up to 20 m/year.
- Peru has lost 22% of glacier surface area in the last 30 years (12,000 millions m<sup>3</sup> of water.)
- New lakes forming by melting of glaciers, increasing risks, and affecting local culture and economy.



local communities and livelihoods already affected...

Capacity of the population for adaptation is under stress. .

Increased vulnerability of mountain ecosystems and populations depending on them.



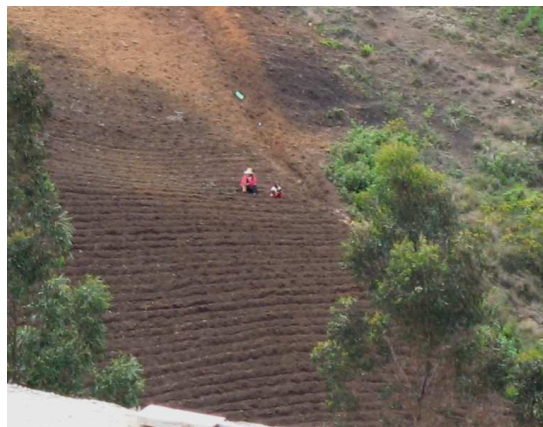
Alteration of water reserves, and natural productivity of terrestrial and aquatic ecosystems threatens subsistence means, food security and safety of human settlements.



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how nature-based adaptation interventions might help reduce vulnerability...



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- Implementation of strategies for ecosystem management ensures that they continue to provide services that enable people to adapt to the adverse impacts of climate change.
- Strategies aim to increase resilience and reduce vulnerability of ecosystems and populations.

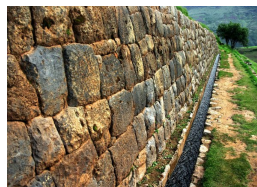


**Adaptation is a priority in the development process in Peru**



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how ecosystem-based adaptation is fitting in with local and national government's broader adaptation strategy...



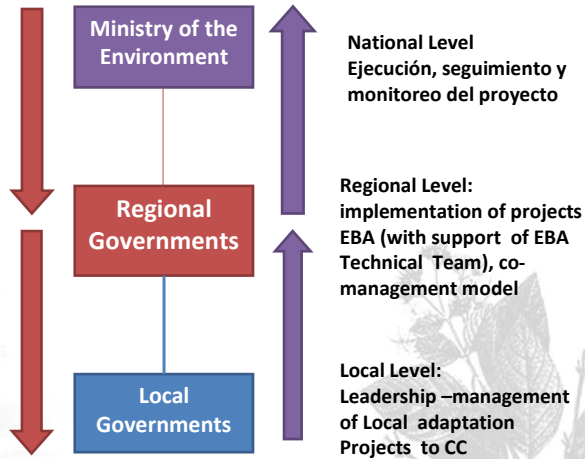
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## EBA implementation

When the scope of EBA, based in a socioeconomic and finance analysis, is consider in the design of politics and at local and national process and management instruments.  
In the execution of concrete activities of EBA in mountains' ecosystem.



## thanks for your kind attention...

