

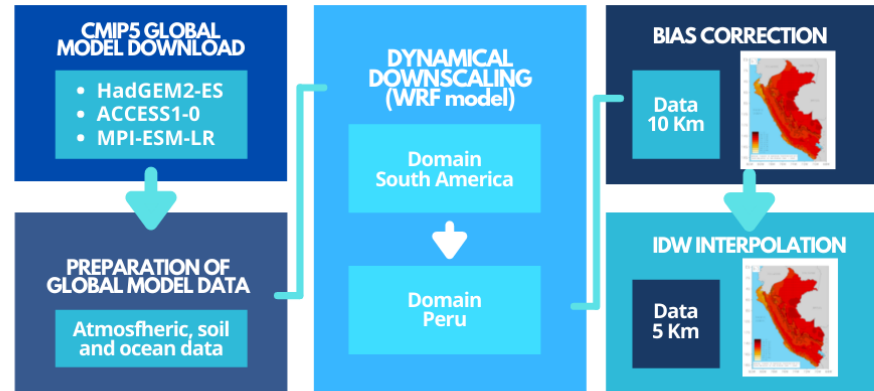
Using climate scenarios to support adaptation planning

NATIONAL WEATHER AND HYDROLOGY SERVICE OF PERU (SENAMHI PERU)



Peru is located on the west central part of South America, it has economic activities such as agriculture, fishing, tourism, among others; that are affected by the variability of atmospheric conditions in their different spatial and temporal scales. For this reason, SENAMHI has prepared climate scenarios for the mid-future (2036-2065, focused on 2050).

A dynamic downscaling was performed to better represent the regional climatic conditions over Peru. It consisted of using the Weather Research and Forecasting (WRF) model to obtain a domain over South America and then another over Peru to three global climate models ACCESS1-0 , MPI-ESM-LR and HadGEM2-ES under high emission scenario (RCP 8.5). In addition, a bias correction and complementary spatial interpolation are applied to obtain data at 5 km.



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Figure 1. Methodology for the climate scenarios over Peru

<https://www.youtube.com/watch?v=ijh4kdfK5b4>

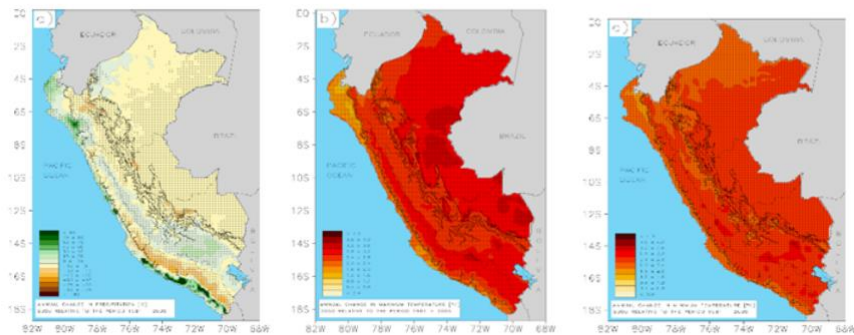


Figure 2. . Spatial changes of a) Precipitation, b) Maximum temperature and c) Minimum temperature. Dotted area indicates significant changes.

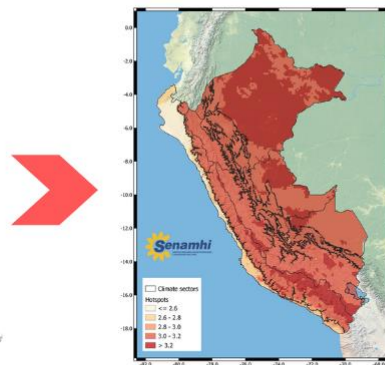
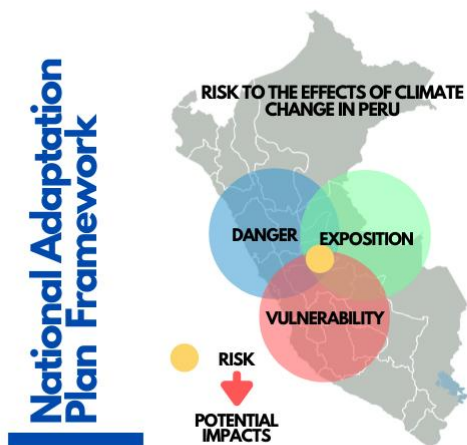
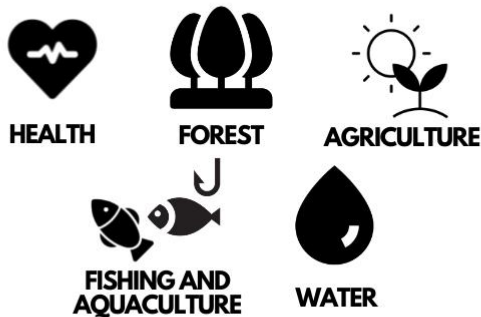


Figure 3. Hotspots over Peru



Thematic areas



National Adaptation Plan to 2030 and 2050



- IMPLEMENTS ADAPTATION MEASURES
- REDUCE EXPOSURE AND VULNERABILITY
- INCREASES ADAPTATION AND RESILIENCE CAPACITY