

## CLIMATE CHANGE ADAPTATION FOR EASTER ISLAND

Easter Island is the most isolated inhabited island on earth. Even as a high relief volcanic island, Easter Island is vulnerable to coastal climate change as its only settlement and iconic cultural heritage monuments are located on the coast. This study assessed the coastal climate change impacts on Easter Island based on projections contained in the International Panel on Climate Change Assessment Report 4. A consultative risk-based approach was adopted in the development of an overview of potential coastal impacts with a focus on coastal (oceanic) inundation. Valuable information was obtained in meetings with key stakeholders during an ACCARNSI funded two week field trip to the Island. Stakeholders consulted included the Governor and Mayor, the Chilean Navy, utilities management authority, national parks authorities, public works and other governmental agencies and local elders and fishermen.

table below. A1B overtopping. All harbour infrastructure is likely to be at risk of regular tidal inundation in 2

Climate Parameter	Projected Change for Easter Island in 2100
Annual average precipitation	-10% to -15% annually -20% to -30% during summer -5% to -10% during winter Dry spells and storm intensity likely to increase
Sea Level Rise	A1FI : 0.26 –

was found that tsunami inundation risk is greater than that estimated for the 100 year ARI event.

Beach shoreline recession is likely to cause one of the two beaches on the island to be permanently inundated. Sea cliff instability may be exacerbated due to rainfall intensity and the potential for greater wave energy reaching the cliffs.

Fishery stocks are likely to be impacted due to rising sea surface temperatures. Agriculture and existing erosion issues are likely to be impacted due to changes in evaporation and rainfall.

### ***Outcomes***

Potential engineering adaptation options were also discussed but Easter Island will face greater challenges within the next decade perhaps before any serious effects of climate change are experienced. However, effective adaptation may require effective planning and decisions now to deliver a sustainable future for Easter Island.

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