

Projections of Beach Erosion and Associated Costs in Chile

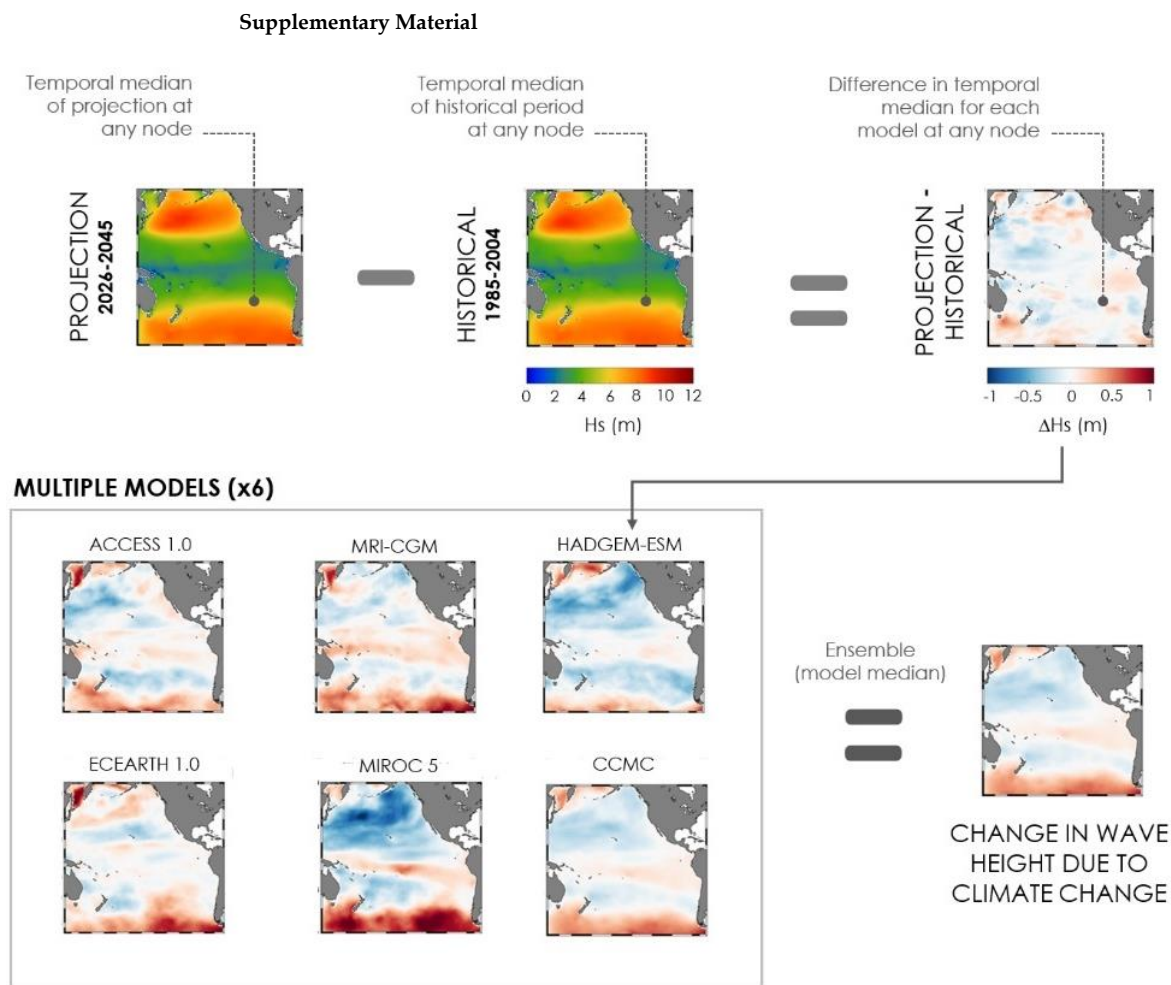


Figure S1. Conceptual model to compute changes in wave climate between the projection (2026–2045) with respect to the historical period (1985–2004). The top panel shows the computation of the temporal median for the historical period and projection and the difference between them in the modeling domain for one GCM (HADGEM-ESM as an example). The bottom panel shows the differences for all six models from which the median difference is computed and attributed to climate change. In this example, fields of significant wave heights are shown in the Pacific Ocean. Extracted from Winckler et al. [Error! Reference source not found.].

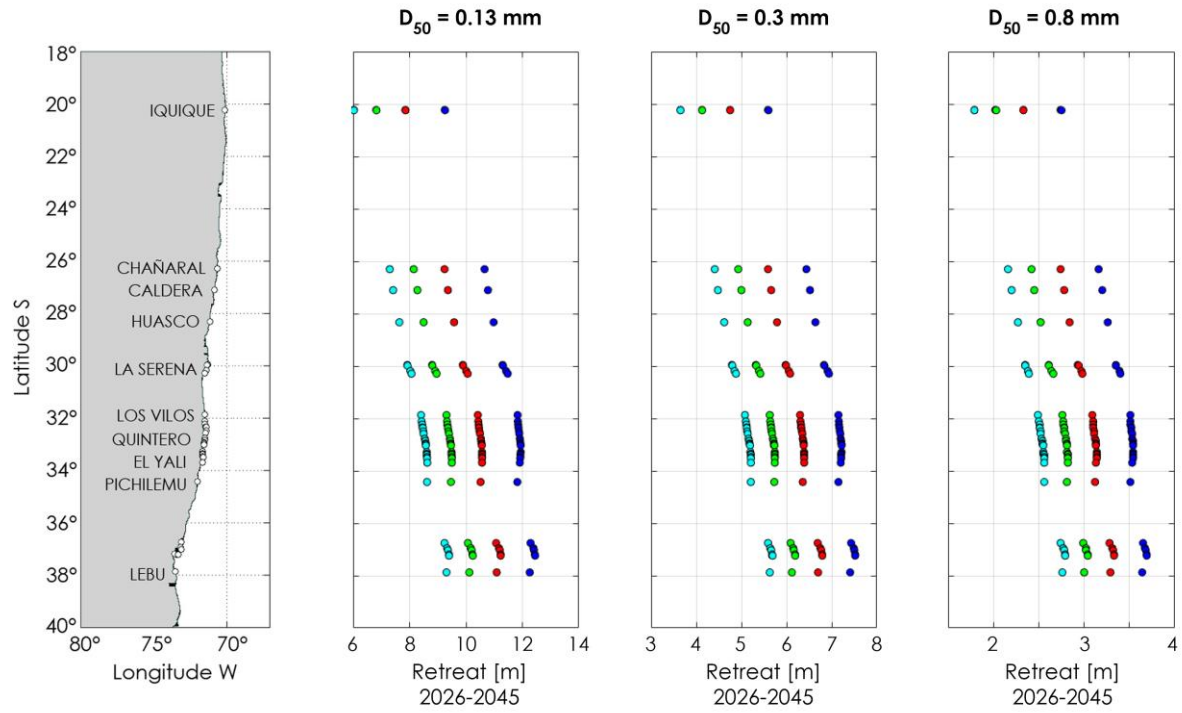


Figure S2. Projection of shoreline retreat in continental beaches for the RCP 8.5 mid-century projection (2026-2045) with respect to the historical period (1985-2004) in meters. Retreat per location is shown for grain sizes of $D_{50} = 0.13, 0.3$ and 0.8 mm and berm heights of $B = 1, 2, 3$ and 4 m. Main cities or sites are included in the map.

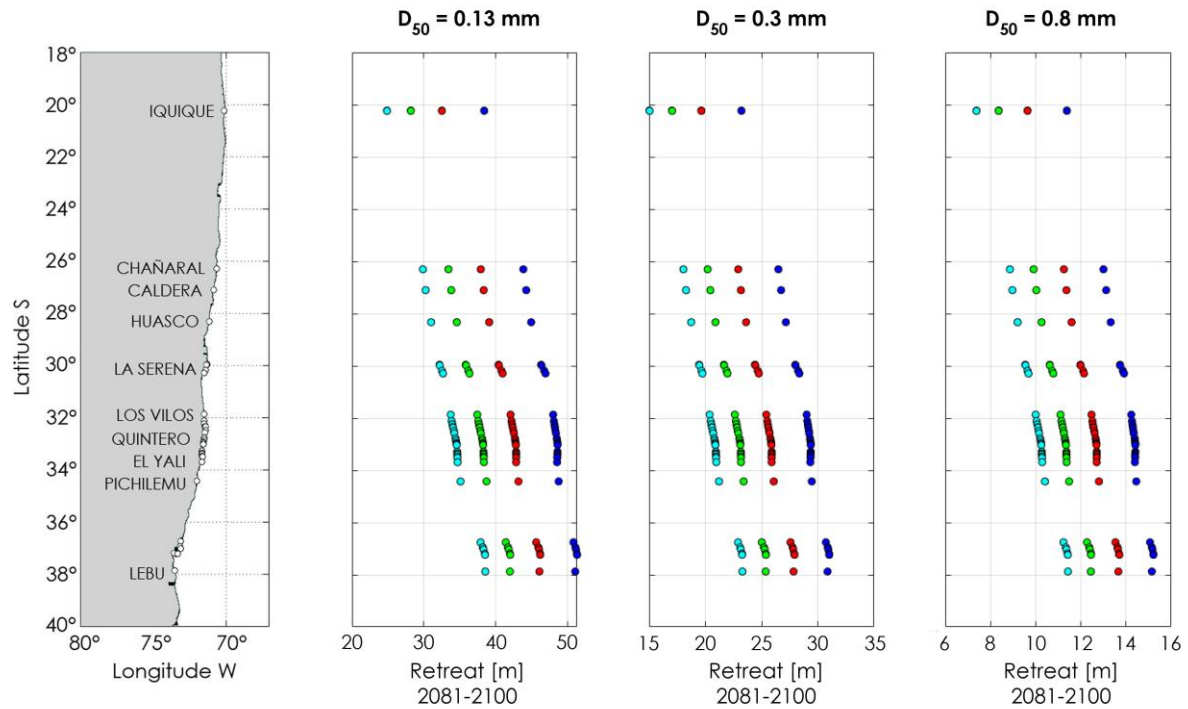


Figure S3. Projection of shoreline retreat in continental beaches for the RCP 8.5 end-of-century projection (2081-2100) with respect to the historical period (1985-2004) in meters. Retreat per location is shown for grain sizes of $D_{50} = 0.13, 0.3$ and 0.8 mm and berm heights of $B = 1, 2, 3$ and 4 m. Main cities or sites are included in the map.

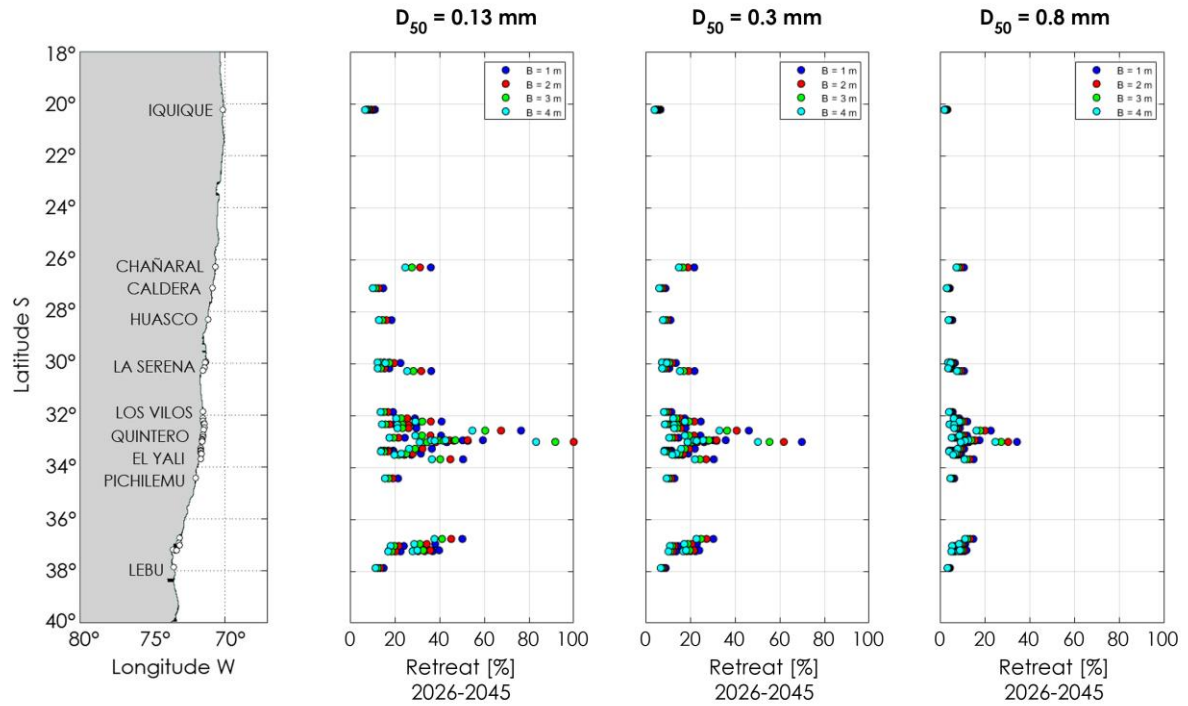


Figure S4. Projection of shoreline retreat in continental beaches for the RCP 8.5 mid-century projection (2026-2045) with respect to the historical period (1985-2004) in %. Retreat per location is shown for grain sizes of $D_{50} = 0.13, 0.3$ and 0.8 mm and berm heights of $B = 1, 2, 3$ and 4 m. Main cities or sites are included in the map.

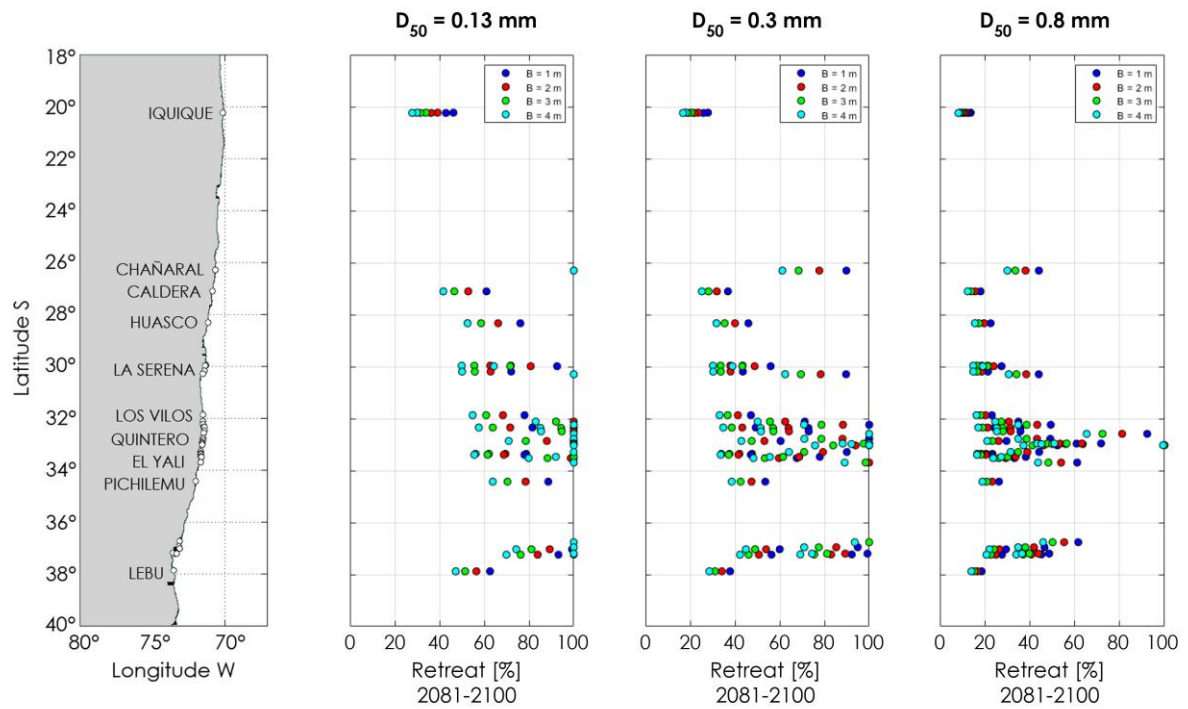


Figure S5. Projection of shoreline retreat in continental beaches for the RCP 8.5 end-of-century projection (2081-2100) with respect to the historical period (1985-2004) in %. Retreat per location is shown for grain sizes of $D_{50} = 0.13, 0.3$ and 0.8 mm and berm heights of $B = 1, 2, 3$ and 4 m. Main cities or sites are included in the map.