

The amount of protection provided by marine and coastal habitats serving as natural buffers against incoming waves. Shoreline-protecting habitats include mangrove, saltmarsh, coastal sea ice, coral reefs, and seagrass.

x_{cp} is the status of the coastal protection goal

$$x_{cp} = \left(\sum_{k=1}^N (h_k \times w_k \times A_k) \right) \left(\sum_{k=w}^N (w_k \times A_k) \right)^{-1}$$

$$h = \frac{C_c}{C_r}$$

h is a measure of the habitat's condition with respect to its reference condition

C_c current health of shoreline-protecting habitat k in a region

C_r is the reference condition of habitat k

w is the rank weight of the habitat's protective ability

A is the area within a region for each k habitat type