

## The Coastal Hazard Wheel system 2.0 - Guidance note for wave exposure classification

For use together with Fig 1 in Rosendahl Appelquist & Halsnæs, 2015, DOI: 10.1007/s11852-015-0379-7

General wave climate	Waterbody size	Specific coastal conditions	CHW classification
<b>Swell wave climate</b> <i>(West coast swell, East coast swell, Trade/monsoon influences)</i>	Any	Extreme swell (West coast swell south of 30°S) and sloping nearshore zone	Exposed
		Extreme swell (West coast swell south of 30°S) and reef/shallow nearshore zone	Moderately exposed
		Swell and sloping nearshore zone	Moderately exposed
		Swell and reef/shallow nearshore zone	Protected
		Backbarrier, fjord, inner estuary coast	Protected
<b>Non-swell wave climate</b> <i>(Storm wave, Tropical cyclone influences, protected area)</i>	> 100 km	Sloping nearshore zone and stronger on-shore winds	Exposed
		Reef/shallow nearshore zone or weak on-shore winds	Moderately exposed
	10 - 100 km	Sloping nearshore zone and stronger on-shore winds	Moderately exposed
		Reef/shallow nearshore zone or weak on-shore winds	Protected
	< 10 km	Any	Protected

### Notes:

- The general wave climate of an area is determined using Fig 1.
- Areas with extreme swell can be identified using Fig 1 and the coordinates displayed in Google Earth.
- Presence of reefs/shallow nearshore zones can be roughly visually identified using Google Earth and further verified with nautical charts for Step 2-3 assessments.
- Presence of weak on-shore winds can be identified with basic information on the local wind climate. For regions categorized as "Protected area" in Fig 1 one should be particularly aware of weak on-shore winds and the "Protected area" of Southeast Asia can generally be considered as having weak on-shore winds.