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Supplement of

Global distribution of nearshore slopes with implications for coastal retreat

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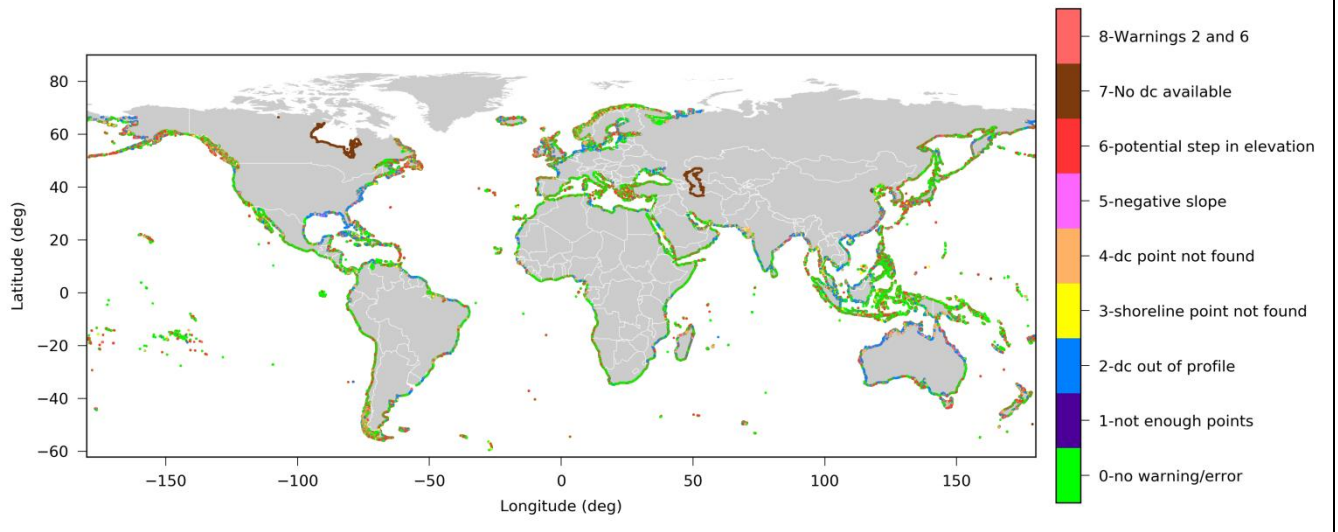
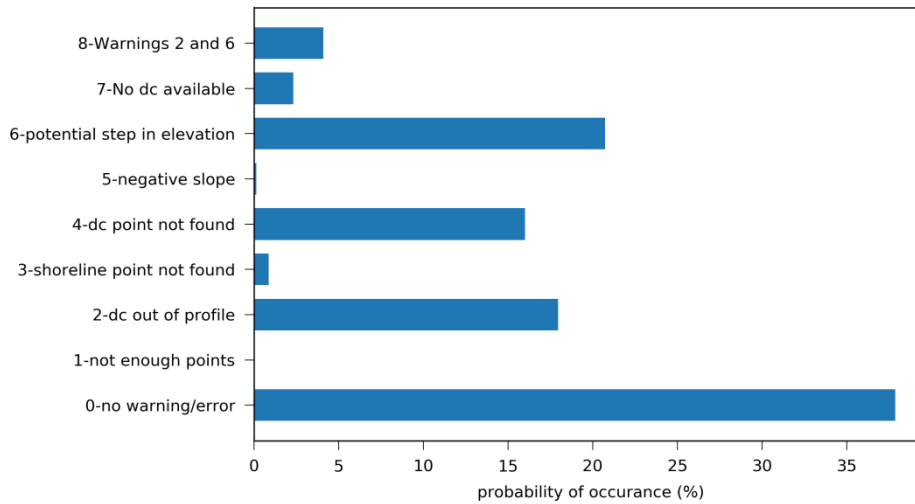


Figure S 1: Global map of error and warning tags. Tags 1,3,4,5 and 7 are error tags (i.e. failure of slope calculation) while tags 2, 6 and 8 are warning tags (i.e. imperfections in elevation profile).



5 Figure S 2: Histogram of the probability of occurrence of each error/warning for all the transects.

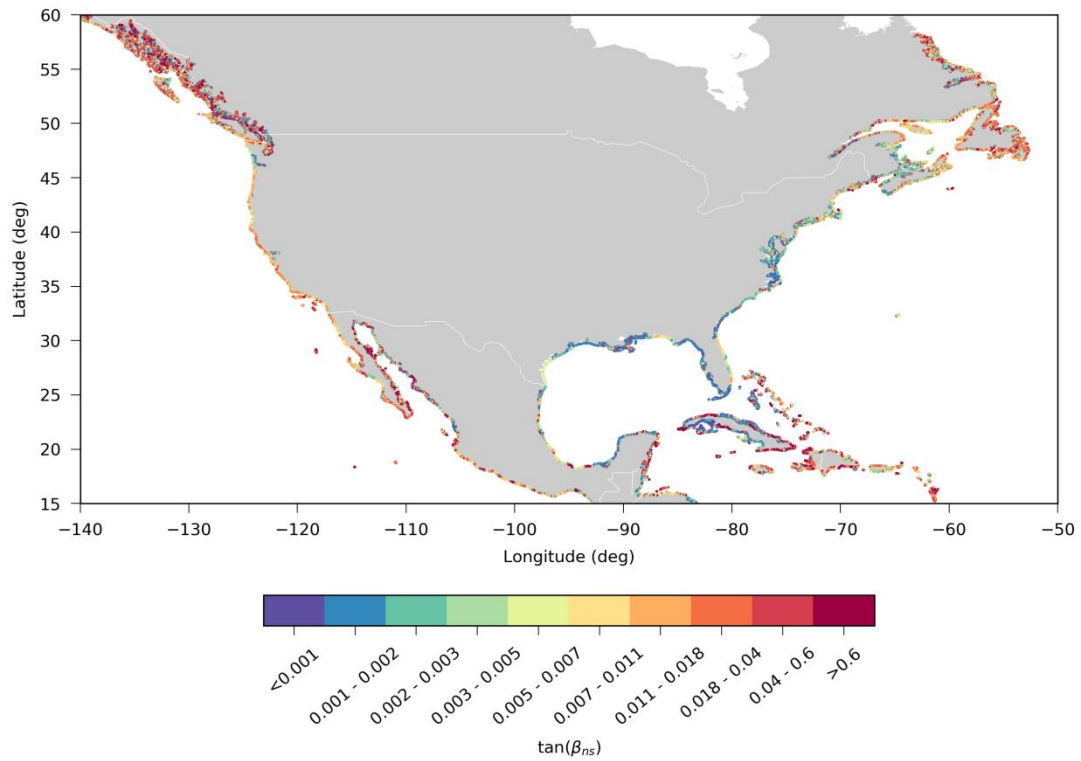


Figure S 3: Map of nearshore slopes for North America. Red colours indicate steeper slopes while blue colours milder slopes. Note that in the colour scale the slopes have been grouped in non-equidistant increments in order to highlight the spatial differences.

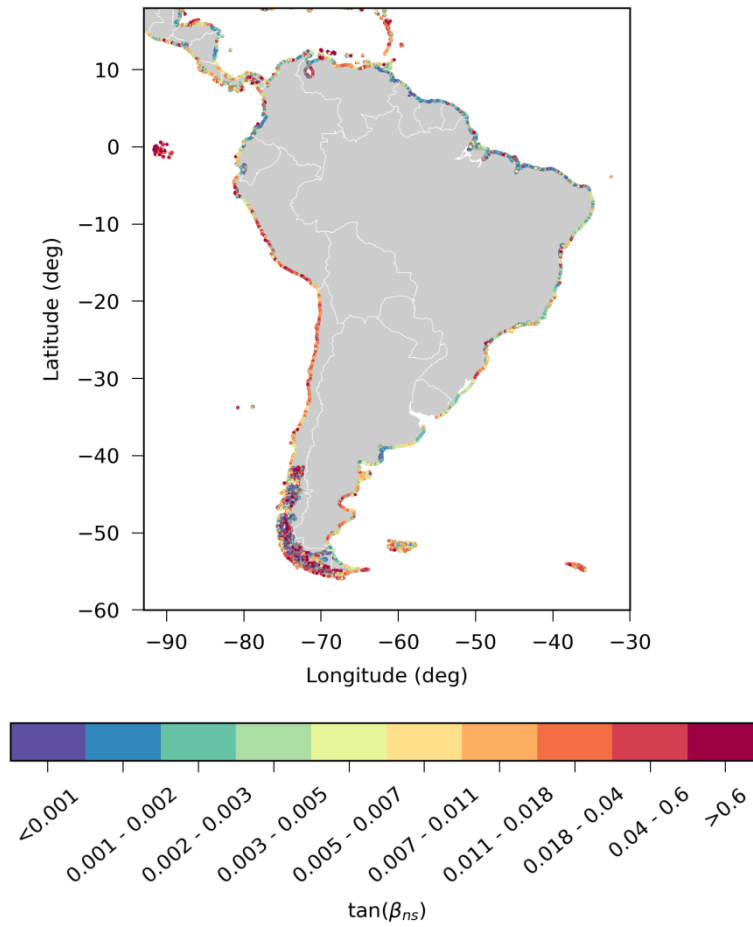


Figure S 4: Map of nearshore slopes for South America. Red colours indicate steeper slopes while blue colours milder slopes. Note that in the colour scale the slopes have been grouped in non-equidistant increments in order to highlight the spatial differences.

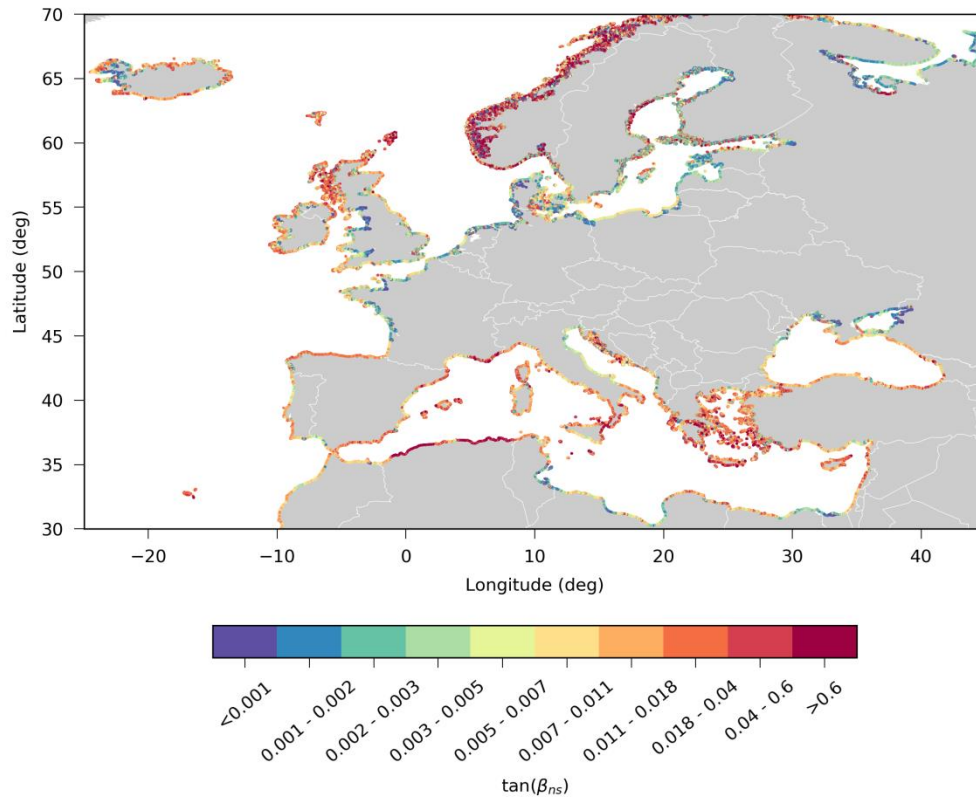


Figure S 5: Map of nearshore slopes for Europe. Red colours indicate steeper slopes while blue colours milder slopes. Note that in the colour scale the slopes have been grouped in non-equidistant increments in order to highlight the spatial differences.

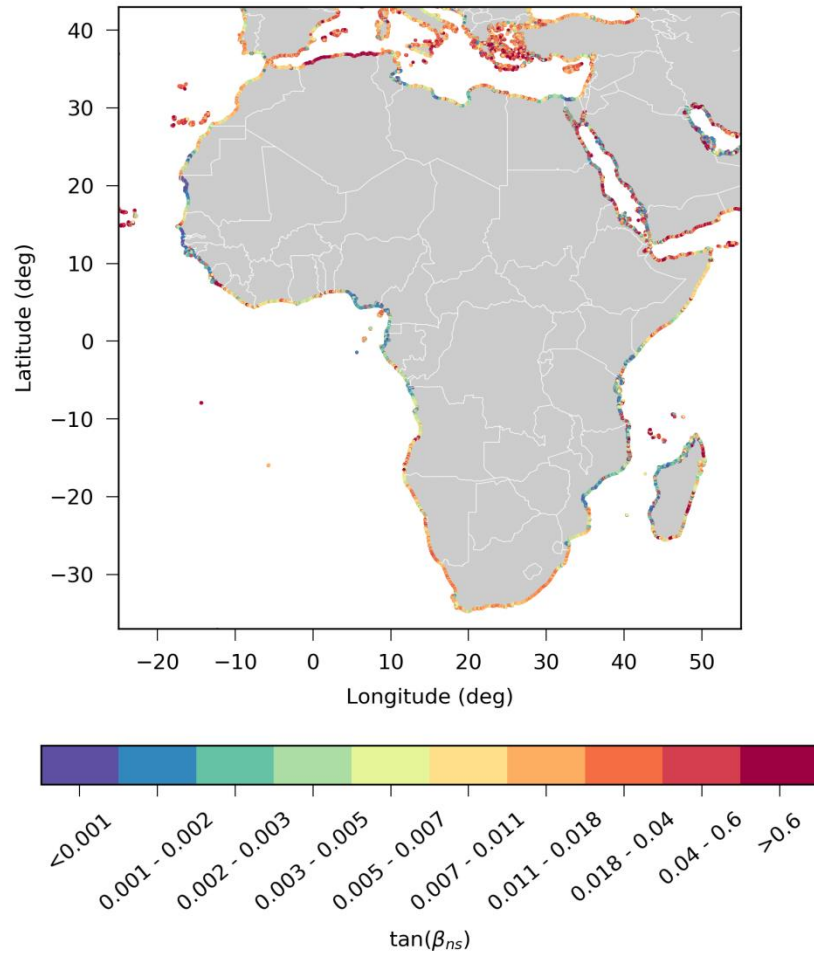


Figure S 6: Map of nearshore slopes for Africa. Red colours indicate steeper slopes while blue colours milder slopes. Note that in the colour scale the slopes have been grouped in non-equidistant increments in order to highlight the spatial differences.

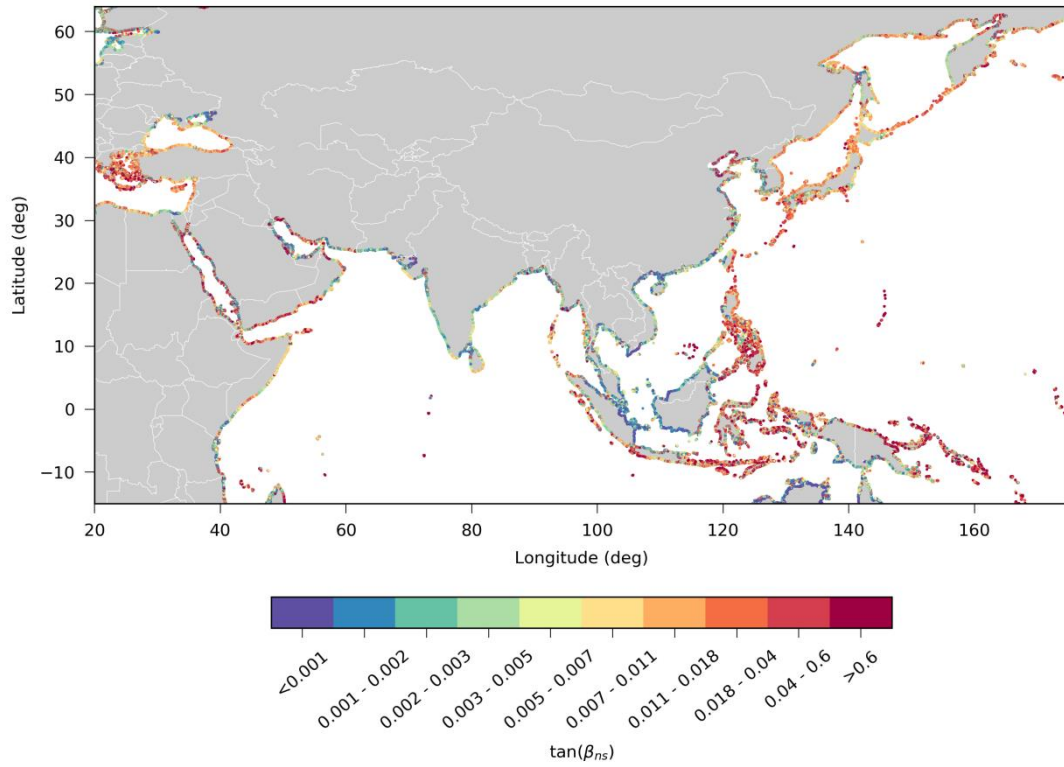


Figure S 7: Map of nearshore slopes for Asia. Red colours indicate steeper slopes while blue colours milder slopes. Note that in the colour scale the slopes have been grouped in non-equidistant increments in order to highlight the spatial differences.

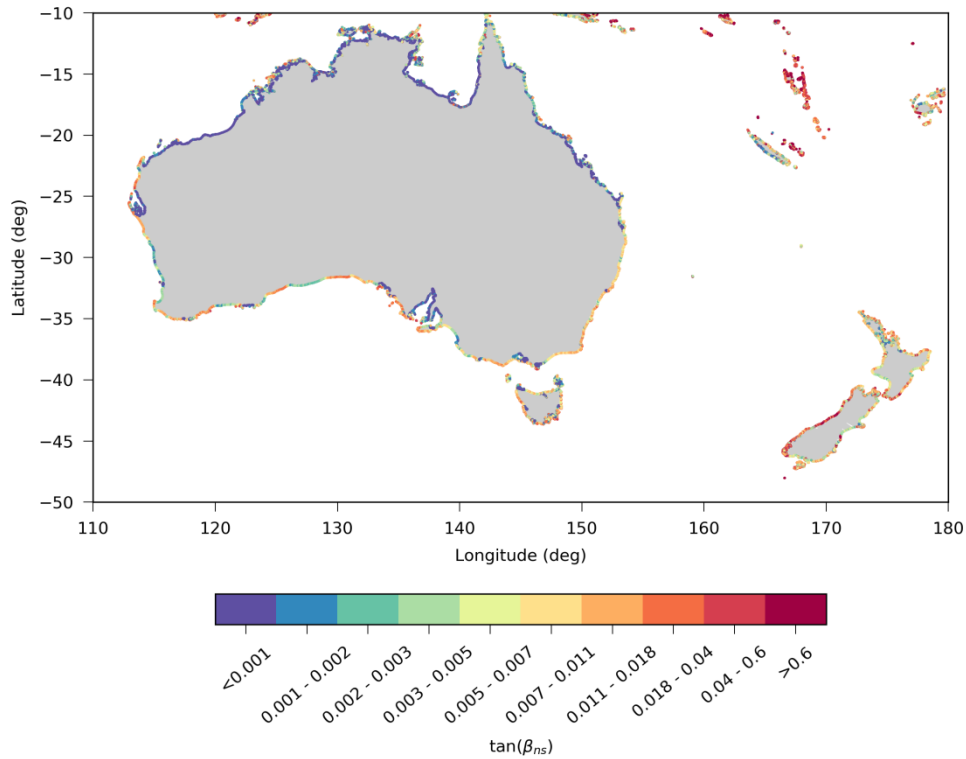
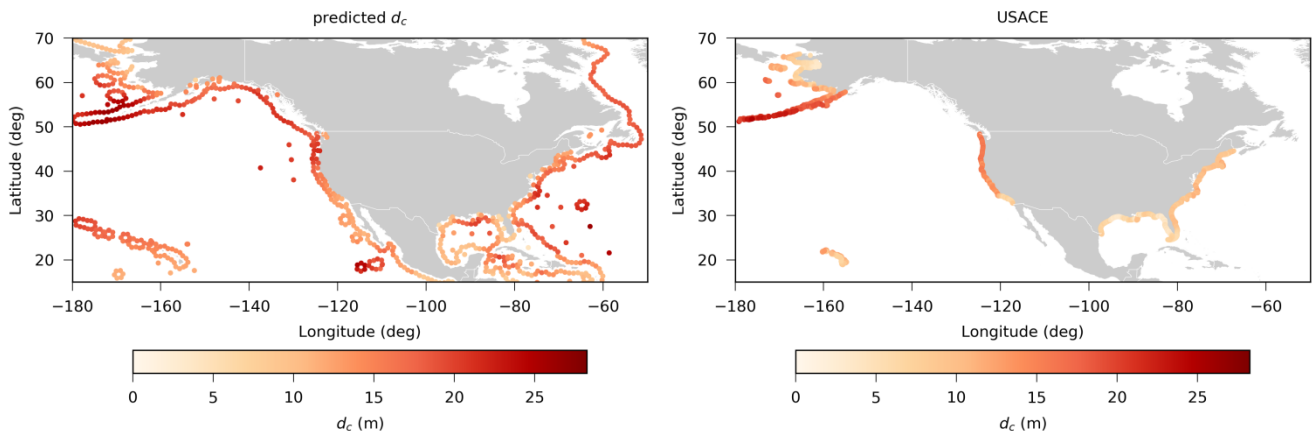


Figure S 8: Map of nearshore slopes for Oceania. Red colours indicate steeper slopes while blue colours milder slopes. Note that in the colour scale the slopes have been grouped in non-equidistant increments in order to highlight the spatial differences.



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Figure S 9: Map of d_c calculated in the present study (left) versus the ones calculated at the U.S coast by USACE (Brutsché et al., 2016) (right).

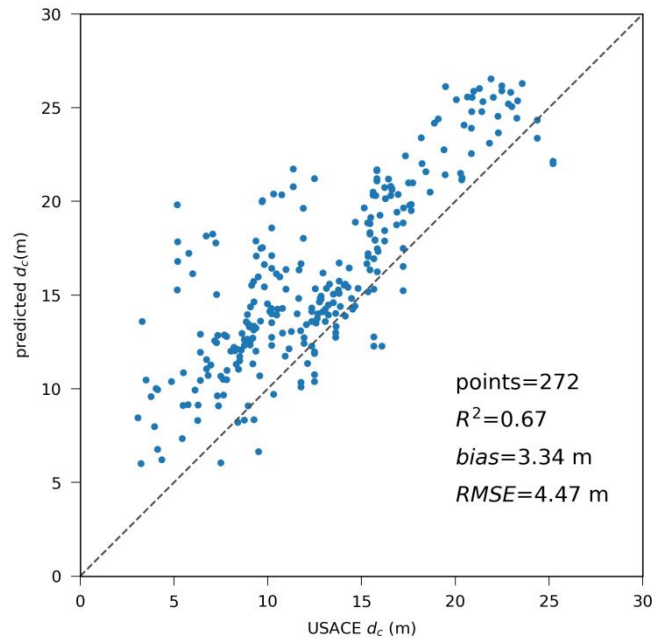


Figure S 10: Validation of the predicted d_c against the estimated d_c at the U.S coast by USACE (Brutsché et al., 2016). The validation was performed for the closest USACE point of each offshore point of the present study.

A	Rocks and/or cliffs made of hard rocks (little subject to erosion) with eventual presence of a rock platform.
B	Conglomerates and/or cliffs (example: chalk) i.e. subject to erosion: presence of rock waste and sediments (sand or pebbles) on the strand.
AC	Mainly rocky, little erodible, with pocket beaches (< 200 m long) not localised.
C	Small beaches (200 to 1000 m long) separated by rocky capes (< 200 m long).
D	Developed beaches (length of the beach > 1 km) with strands made of coarse sediments: gravels or pebbles
E	Developed beaches (> 1 Km long) with strands fine to coarse sand.
F	Coastlines made of soft non-cohesive sediments (barriers, spits, tombolos).
G	Strands made of muddy sediments: "waddens" and intertidal marshes with "slikkes and schorres"
H	Estuary (virtual line).
J	Harbour areas
K	Artificial beaches
L	Coastal embankments for construction purposes (e.g. by emplacement of rocks earth etc.)
M	Polders (reclaimed coastal areas). Only used in CCEr database
N	Very narrow and vegetated strands (pond or lake shore type)
P	Soft strands with rocky "platforms" (rocky flat) on intertidal strands
R	Soft strands with "beach rock" on intertidal strands
S	Soft strands made of mine-waste sediments
X	Soft strands of heterogeneous category grain size
Y	Artificial shoreline or shoreline with longitudinal protection works (walks, dikes, quays, rocky strands) without sandy strands
Z	Soft strands of unknown category grain size
	According to MCD
1	Sandy beaches
2	Unerodible (cliffs/rocks/human structures)
3	Muddy coastlines/Estuaries
4	Rocky with pocket beaches

5 Figure S 11: Reclassification of the 20 EUROSION (A-Z) geomorphological classes to the 4 MCD classes (1-4).

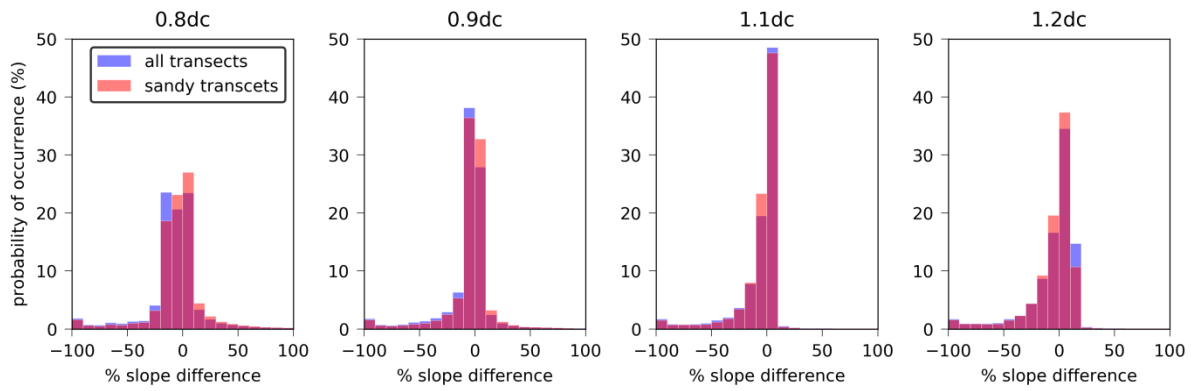


Figure S 12: Histogram of normalized nearshore slope difference for all the transects (blue) and sandy transects (red) for four changes in the depth of closure (-20%, -10%, 10% and 20%). The data have been grouped in bars in increments of 10%.

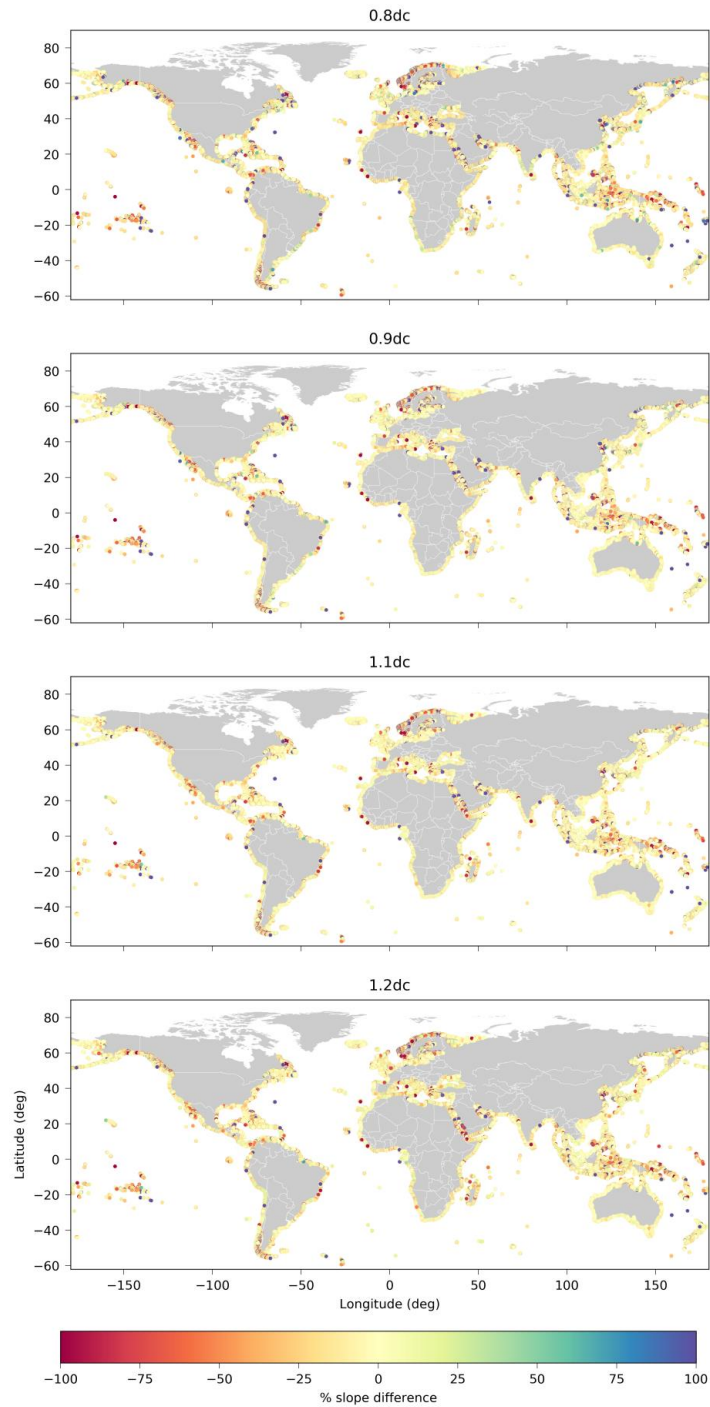


Figure S 13: Global maps of normalized nearshore slope difference for all the transects for four changes in the depth of closure (-20%, -10%, 10% and 20% from top to bottom).