

Geological Survey Department (GSD)

Decision support systems (DSS) for coastal vulnerability assessments

GSD does not currently utilise DSSs for coastal vulnerability assessment and is not aware of other institutions in the country using such systems. GSD produces a variety of maps to evaluate geology in relation to coastal vulnerability. These include geologic maps of rock types and structures; topographic and bathymetric maps; seafloor sediment maps; shoreline change maps; hazard maps identifying areas at risk from specific hazards. Further, Coastal Vulnerability Index (CVI) is also applied and incorporated in maps showing overall vulnerability based on the other data outputs as well as relative sea level rise.

Input parameters mentioned in the figure may comprise multiple sub-parameters. For more information on the input parameters see Larsen et al. (2025; Table 1, p 17).

Further readings:

Larsen, I. R., Ernsten, V. B., Maspataud, A., Dakin, N., van Heteren, S., Koutroulli, A., Poyiadji, E. & the GSEU T5.4 Consortium (2025). EGDl multifunctional 2D/3D decision-support module v1. GSEU Report on Deliverable 5.7, 165 pp.

