

A Case Study in Land and Sea Data Interoperability

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Key words: Capacity building, Coastal Zone Management, Hydrography, Marine cadaster, Spatial planning

SUMMARY

A Case Study in Land and Sea Data Interoperability Patrícia GASPAR (Netherlands), Andrew HOGGARTH (Canada), Gordon JOHNSTON (United Kingdom), Charles de Jongh (Netherlands) Key words: Marine Spatial Planning, Coast, Bathymetry, Database, Interoperability The diversity of the coastal environments and the rich marine resources present along Ghana's 550 km long coastline provide important economic and social opportunities to the region. Ghana has one of the fastest growing economies in the Gulf of Guinea, based mostly on agriculture, mining and forestry. The recent discoveries and exploration of oil and gas reserves offshore have brought an increase in shipping traffic, offshore and onshore related infrastructures, with additional pressure being placed in existing resources for the safety of navigation and also creating potential added risk for degradation of the marine and coastal ecosystems. Tools for marine spatial planning and coastal zone management are therefore necessary. This paper outlines the lessons learnt, from previous collaborations in Africa, to develop a regional database. The paper also outlines the development of a seamless topographic and bathymetric elevation model using off-the shelf software. The topo-bathymetric model would serve as the geospatial base information for the different stakeholders who would base their planning and recommendations on it. Applied in assessing scenarios such as for the protection of the marine environment, ensuring safety of navigation and planning the mitigation and reduction of the possible effects of maritime disasters are then possible.