The Marine Cadastre: Legal and Spatial Data Contribution to Economic, Environmental and Social Development

Michael SUTHERLAND, Canada

Key words: Marine cadastre; multi-criteria decision analysis; decision support; information system; marine information management; GIS; marine tenure; coastal tenure; property rights; sustainable development

SUMMARY

The concept of what constitutes a cadastre varies across jurisdictions. A marine cadastre is an even fuzzier concept. Generally, though, it is agreed among experts and interested parties that the administration of rights to marine and coastal spaces requires the management of legal and spatial information to these spaces. Depending on the jurisdiction and school of thought, this (formal) management of marine and coastal legal, environmental, and spatial information (among others) is ideally accomplished through an established marine information system, or a marine cadastre. In this paper, the term "marine cadastre" will be used as a matter of convenience to describe any information system established to manage legal (and even informal) marine and coastal tenure (and other) information, and its linked spatial quantity.

Legal and informal marine and coastal tenure contributes, negatively or positively to the economic, environmental, and social development of jurisdiction. This occurs whether the tenure and spatial dimensions are known or not. However, if these dimensions are known steps can be taken by the appropriate authorities to accommodate and improve formal and informal social arrangements, equitably allocate rights, monitor and mitigate the environmental impacts of social and economic activities among other things. Tenure information used, for example, in association with environmental and ecological information related to the same spatial extent enhances the decision-making process. A marine cadastre makes the achievement of these objectives easier by providing all appropriate information to support socioeconomic and environmental decision-making.

Using a case study, this paper underscores the point that data stored in a marine cadastre must be meet the test of desirable data quality (i.e. be complete, up-to-date, useful etc.), and be within the framework of collaborative governance to be of optimal use as support for the social, economic and environmental objectives of jurisdictions.

1/11