

STAKEHOLDERS, LEGAL AND TECHNICAL ISSUES

Governing Marine Spaces

The governance of any geographical area, including marine space, is the management of stakeholder relationships with regard to spatial-temporal resource use for many sanctioned economic, social, political and environmental objectives. The authors explore a number of issues and identify a narrow approach to stakeholder participation as one of the greatest limitations to marine programmes and projects.

Interests in marine space can be expressed in a variety of ways: sovereignty, jurisdiction, administration, ownership (title), lease, license, permit, quota, customary rights, aboriginal rights, collective rights, community rights, littoral rights, public rights, rights of use, and public good. One feature of a coastal state is its multidimensional tapestry of these interests (and perhaps others) in coast and offshore. Marine administrators are challenged with trying to understand and communicate this to the various decision-makers and stakeholders.

Marine Cadastre

A marine cadastre serves to meet the information requirements for governance of marine space by facilitating the management of thematic information, boundaries and limits. In past research it was initially assumed that spatial delimitation of interests would help clarify resource management and use-regime in marine spaces. This approach was very limited and probably impossible, because there are numerous marine boundaries and at least four dimensions had to be considered. Drawing lines on charts was often not feasible, legally valid or of value. And the legal profession taught us of myriad boundaries: at least one, if not more, for every resource and every resource use. Starting from the boundary perspective was a non-starter.

Marine Governance

The governance of marine space is the management of stakeholder activities in these spaces. Collaborative, co-operative and integrative governance offer improved frameworks for dealing with stakeholder issues. Governance is all-encompassing and touches virtually every area of human existence. It can take many forms and takes place on many levels. Each form of governance makes use of facilitative processes, mechanisms and systems to pursue goals; it is about the provision of direction towards the achievement of objectives. The direction taken must take cognisance of the interests, rights, responsibilities and differences amongst all stakeholders. The governance process can be defined in terms of listening, listening, learning and leading.

Stakeholders

One of the greatest limitations to most marine programmes and projects is having a narrow approach to stakeholder participation. This is often driven by time constraints, lack of knowledge, single-issue focus or governmental silos. The "top-down approach", while perhaps the easiest to manage, is the least likely to give sustainable results. Spending time at local level in the initial stages of marine activities can help identify the breadth of stakeholders and their interests. Information meetings frequently allow question time but do not include processes for taking and putting input to use. Information provided for consultation has to carry the right message and be carried on the right medium to reach a variety of audiences. Once input is obtained, consensus-building strategies are required to establish priorities and identify appropriate solutions. Priorities often differ at local, regional and national level. Whoever is leading also has to listen and learn if such differences are to be accommodated and/or resolved. And this is an on-going process that will affect the life of the governance activity. This may all seem simplistic, but ignoring these issues can undermine the best-intentioned activities.

Legal Issues

Another perspective is found through analysis of governance functions that link it to law and information, including:

- allocation of resource ownership, control, stewardship and use within society
- regulation of resources and resource use
- monitoring and enforcement of various interests
- adjudication in disputes
- management of spatial and other types of information.

The United Nations Law of the Sea Convention establishes a framework for national and international governance by establishing limits of national-resource use and control. Each nation must also have a set of procedures for allocating resources within marine zones. To illustrate the related complexity, consider the terms listed in the side bar, often used interchangeably or inappropriately.

Myriad Boundaries

Legal frameworks governing the marine environment evolve rapidly and may thus be incomplete and contain more uncertainty than land legislature. This is due to an expanding list of national territories coming under the Law of the Sea, and the need to clarify

intergovernmental title, jurisdiction and administration within them. Rapid development of new and existing marine-resource use, conservation and environmental-risk reduction and recognition of the rights of indigenous and other groups cause further uncertainty. There are virtually no rights of exclusive use or ownership in marine space. The three-dimensional (3D) aspect of a parcel™ is more apparent on water than on land because rights are usually allocated for specific portions, such as seabed and water column, or specific activities, such as fishing and navigation. Such interests usually coexist, and even this coexistence may change over time, as with seasonal rights. This increases the number of stakeholders that must be considered for any marine/coastal area. It also results in myriad boundaries of jurisdiction, administration, ownership and use, in some instances a boundary or limit for each specific resource or activity.

Terms used Interchangeably or Inappropriately

Sovereignty: Supreme rights of ownership; entities holding sovereign rights reserve the right to impose their will on others and to usurp the ownership rights of others.

Legislative jurisdiction: Sphere of authority of a legislative body within which it may enact laws and conduct all business incidental to its law-making function. Or that aspect of power where rules (i.e. rights, responsibilities and restrictions) of social, cultural, economic and political behaviour are defined and wherein it is determined how and when these rules are applied and enforced.

Administrative authority: Power of an agency or its head to carry out terms of the law creating the agency, as well as define regulations for the conduct of business before the agency; distinguishable from legislative authority to make laws.

Title or ownership: Means whereby an owner of rights to an object of property may claim just possession of the object (although actual possession or occupation may be by another).

Where sovereign, jurisdictional and administrative rights are normally rights vested in governments and their agencies, various levels of government, group and individual may hold title. Depending on the legal system, ownership™ may be full or partial and usually consists of derivative interests.

Land-water Interface

Much marine activity is focused on the coast. Intensity of land use in many countries is greatest at the coast because of transportation and shipping through ports. This results in and is affected by:

- overlaps and gaps: there are often overlaps of jurisdiction, administration, and ownership between government bodies primarily land-based and those that are marine-based
- complex private and public interests: private land interests frequently extend into marine space. Often these rights are undocumented and have been acquired through traditional use. They are not usually well understood by planners, managers and policy-makers without a background in water law™
- lack of appropriate information for traditional governance practices. No single agency has responsibility for leading data-management activities in both coastal-land and marine spaces
- boundaries and limits not well delineated because in the coastal zone typically made with reference to variable physical features such as high water, the shoreline and the normal baseline. The land-water interface is ambulatory and traditionally most boundaries and limits followed the motions of that interface. The law delimits boundaries when and if an issue arises. Therefore, without court decisions or specific legislation, the location of many boundaries is a matter of considerable interpretation.

Technical Issues

Information about resources, the nature of the environment within which these exist, and on their users and uses is required for effective evaluation and monitoring of marine areas. Information on, for example, living and non-living resources, bathymetry, spatial extents, shoreline changes, marine contaminants, seabed characteristics, water quality and property rights can all contribute to sustainable development and good governance. All such information types have spatial components and therefore spatial information is important for the good governance of marine spaces. Boundary information is spatial information essential for such management and administration. Recent research supports the relevance of imprecise or ill-defined boundaries; precise delimitation becomes important in relation to the need equitably to allocate resources perceived as dissected by the potential boundary.

Looking at marine environments from a rights-based perspective, it must be realised that one column of the marine environment implies several disparate sets of rights. Rights to the surface of the water column, for example for navigation; to the water column itself, for example for fishing; to the seabed, for example for fishing and mineral resources and to the subsoil, for example, for mineral resources. The nature of the marine environment requires that rights be considered in terms of at least three dimensions, and more practically four; marine spaces change over time. Marine geospatial-data infrastructure initiatives are underway in many parts of the world with the aim of co-ordinating the dissemination of data for support of good governance. The components of any marine geospatial-data infrastructure are expected to include key spatial-data, computer network infrastructures, spatial-data management software and other software, data and other standards, metadata, stakeholders, and possibly a spatial-data clearinghouse. Table 1 shows spatial-data infrastructures as part of a marine-information system viewed from a property-rights perspective.

Coastline Boundaries

Because tidal datums are related to specific sea-levels and are therefore subject to temporal and spatial variations, and because marks left by tidal action on shores also vary with changes in sea-level and tides, boundaries defined by these methods are sometimes subject to ambiguous positioning in 3D space. Constant tidal action can cause deposits or erosion and thus the physical configuration of the shoreline is subject to constant change. This necessitates occasional re-survey in order to update coastal-boundary information. These and other factors influence the definition of coastline boundaries and therefore indirectly affect the governance of marine spaces.

Concluding Remarks

To be of maximum benefit for the governance of marine spaces, information systems will have to be able to manage and visualise information on multiple marine-resource interests that overlap in 3D space and time. The oceans provide an opportunity to avoid the mistakes already made in land-resource management and land-information systems. Perhaps we can create systems for marine space that will help improve our governance and information systems on land.

Further Reading

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