Aspects of spatial planning and governance in marine environments

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Abstract Marine environment is under threat, due to the constantly growing and unplanned use of the marine resources and the constantly growing (in volume and size) human activities taking place in the sea. Given these facts and tendencies, spatial planning in marine environments (Marine Spatial Planning - MSP) has lately become a promising procedure of growing importance in tackling developmental and environmental issues related to the oceans and seas.

However, even though spatial planning has a long tradition in land (Terrestrial Spatial Planning), not all procedures and philosophy can be "transplanted" to MSP. Governance issues fall into the same delimitation. Indeed, marine space has rarely had administrative limits designated or even an EZZ proclaimed. This means that decision making when planning in the sea may involve an unusual number of Offices/Heads, in some cases deriving from different countries. At the same time it may involve new types of stakeholders (e.g. fishermen) previously not involved in spatial planning procedures.

The paper deals with complexities related to governance issues for spatial and environmental planning in marine ecosystems. The paper aims to highlight irregularities and differences when planning in the sea. The ultimate objective is to contribute to the discussion on how marine ecosystems will maintain their ability to deliver valuable services both to the environment and to humans.

Keywords: Marine Spatial Planning (MSP), environmental planning, governance, Greece

1. Introduction: about territorial governance and participatory democracy in spatial planning

Governance is a special term that can be defined in different ways (Rhodes, 2000), from country to country (Kohler-Koch, 1999) or even within each country (Loughlin, 2007). According to the United Nations Development Program, governance is defined as *"the rules of the political system to solve conflicts between actors and adopt decisions (legality)"* and also as the *"proper functioning of institutions and their acceptance by the public (legitimacy)"*. At the same time, according to several authors, including Eising and Kohler-Koch (1999) and Stead (2013), governance is not always formal. It also includes informal, horizontal and vertical arrangements, and it is also interwoven with reaching binding decisions in public affairs. In other words, it consists of *"structured*

ways and means in which the divergent preferences of independent actors are translated into policy choices 'to allocate values', so that the plurality of interests is transformed into co-ordinated action and the compliance of actors is achieved" (Eising and Kohler-Koch, 1999).

Regarding *territorial governance*, according to the CEMAT (Conférence de l'*Europe* des *Ministres* responsables de l'Aménagement du Territoire), it is defined as "a *global concept which characterizes the way spatially-relevant policies, considered together, are applied"*. In addition, according to the same Body (CEMAT), territorial governance is described as *"the result of multi-level and cross-sectoral relationships in the field of public policies"*, also referring to *"horizontal and vertical cooperation in the shaping and implementation of these policies"*. In a similar way, OECD (2001) defines territorial governance as "*the manner in which territories… are administered and policies* are *implemented, with particular reference to the distribution of roles and responsibilities among the different levels of government (supranational, national and sub-national) and the underlying processes of negotiation and consensus-building"*. According to Wassenhoven *et.al. (2010),* good territorial spatial governance is characterised by: Inclusion; Subsidiarity / proximity; Acknowledgement of diversity; Accountability / transparency; Sustainability; Equity of access; Efficiency and effectiveness; and Openness to innovative public management.

Even though Faludi (2012) notices that in some circles the term "territorial governance" has lately become synonymous to "spatial planning", it is not. Lidström (2007) argues that territorial governance is responsible for drawing borders, allocating functions, defining the autonomy and the way that units are governed, defining patterns of co-operation and collaboration, both between governmental and non-governmental actors and between units of government. In this way, as stressed in the Handbook of CEMAT, "for territorial democracy and planning participation in spatial planning" (announced in 2014 during the Greek Presidency), territorial governance is directly connected with "consultation" as well as "public participation". Besides, "advocacy planning" (initially introduced in the mid '60s by the American planner Paul Davidoff) is a long-term objective, whenever addressing competing interest groups, in order to achieve consensus.

Given the above, the present paper examines key issues of territorial governance, not in terrestrial but in marine space. In other words, it examines aspects of territorial governance not for TSP (Terrestrial Spatial Planning) but

for MSP (Marine Spatial Planning), which is a totally new procedure and tool. To this end, the paper begins with conceptual and key information on MSP and continues with a brief presentation of governance and planning irregularities and particularities related to the marine space. The paper focuses on the case of Greece, using the examples of the Ionian Islands Region and the Corinthian Gulf. The ultimate objective of the paper is to contribute to the emerging discussion on how to achieve good governance when planning in the marine space, taking fully into consideration existing practices from the land and TSP (Terrestrial Spatial Planning).

2. Spatial and environmental planning in the marine space

2.1. About Marine Spatial Planning

According to UNESCO, Marine Spatial Planning (MSP) is defined as "*a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that usually have been specified through a political process. Characteristics of marine spatial planning include ecosystem-based, area-based, integrated, adaptive, strategic and participatory*" (Ehler and Douvere, 2009).

The need for the extension of spatial planning from the land to the sea is relatively new. It was evoked after recent research (e.g. Millennium Ecosystem Assessment, 2006), proving that the marine space is under serious threat. Indeed, due to the constantly growing and unplanned use of the marine resources and due to the constantly growing (in volume and number) human activities taking place in the sea (Maes, 2008), marine resources are seriously threatened by exhaustion and degradation, while marine biodiversity is threatened by severe alterations (Smith *et.al*, 2011; Douvere, 2008). As a result, under threat too, is the ability of the ecosystem to keep delivering valuable services both to the environment and to humans as well (Gilliland and Laffoley, 2008).

Considering the above facts, there is no wonder why spatial planning of the oceans and seas (MSP) is constantly gaining ground as the number one process, promising proper management of the augmenting human activities in the sea (sea uses), as well as proper management of the environmental impacts that these activities have on the marine ecosystem. Therefore, during recent years, a constantly growing number of countries as well as international Bodies include Marine Spatial Planning in their Policies and practices. Among them are the United Nations and the European Union, that have recently launched the ICZM Protocol (2008) and the EU Directive (2014/89) for MSP, respectively.

However, even though spatial planning has a long tradition in land, not all experiences, procedures and philosophy can be automatically "transplanted" to MSP. Governance issues fall into the same delimitation. Given this fact, the following section presents the most important irregularities and particularities related to the marine space, so that critical conclusions are reached regarding the key issues that territorial governance, when planning in the marine space (MSP), has to consider.

2.2. Particularities and irregularities of the marine space affecting governance and planning

Despite the fact that more than two thirds of planet earth is covered with water, oceans and seas are still considered to be "terra incognita". Indeed, availability of data for the sea is extremely low, compared to the land. Missing information usually regard: a) geophysical data (bathymetric / terrain data, geological faults, sea streams, currents, tides, ripples, whirlpools, wind power, etc), b) ecosystem data (posidonia oceanica meadows, coral reefs, etc) and c) resource data (fish breeding areas, fossils, minerals, oil resources, etc). Beyond the missing ones though, existing data too, fall into several delimitations. In fact, existing data are usually available at different resolutions and digital analyses, different formats (hardcopy maps, digital maps, etc), different coordinate systems, or even different time-scales, whilst their accessibility is not always for free (PAP/RAC and University of Thessaly, 2015).

Other peculiarities related to the marine space (affecting spatial planning and calling for different conceptual and methodological approaches) also regard the legal and geopolitical nature of the sea. These are (Coccossis and Beriatos, 2016; Papageorgiou, 2016):

a) the property status: which on land varies considerably (among private, public properties, etc.), whilst in the sea for most coastal countries the marine space is public property. This fact facilitates planning implementations, since private interest is mainly absent.

b) the legal status: jurisdictions in the marine space are totally different than in land. Up to the Territorial Waters (T.W.) absolute jurisdiction falls under the coastal states. Beyond T.W. marine space is regulated almost exclusively by the International Law for the Sea (UNCLOS). In this case, governance and spatial planning practiced is not only a matter of each coastal state but also concerns and affects the international community as well.

Other issues, also affecting governance and spatial planning, regard the administration and competencies for the marine space. Indeed, in most countries, administrative limits (boundaries) extend up to the coastline and not up to the marine limits (i.e. up to the borders in the marine parts of a country). This means that competencies and jurisdictions in the sea are usually not defined. At the same time, in most coastal countries designation of the outer (marine) limits (such as the Exclusive Economic Zone, Continental Shelf, etc) is still undetermined. Thus, in most cases, transboundary cooperation in a sine qua non, if Marine Spatial Planning is to take place.

Considering the above, it becomes obvious that planning and governance in the marine space necessitates a different approach than the one in land, firstly, because completely different types of stakeholders within a country are involved, and secondly because an unusual number of Offices/Heads are also involved, in some cases deriving from different countries. In the following section, examples of these peculiarities in governance and spatial planning are presented, taking the Greek practice as a case study.

3. Experience from Greece

3.1. Governance in spatial planning and competencies in the marine space

Governance in marine spatial planning in Greece is not explicitly or separately defined from terrestrial spatial planning. However, and despite its Greek origin, "governance" ("kyvernan") in Greece has no significant weight. With the exception of the *National Council for Spatial Planning*, and the *Co-ordinating Committee of Governmental Policy regarding Spatial Planning* (ministerial body, chaired by the Minister for the Environment), there are no other similar governance bodies either at the regional or local level (Papageorgiou, 2015).

Regarding consultation and participation of stakeholders and actors, although foreseen at all levels by the Greek planning legislation, it is mainly at the local level that public participation is facilitated the most. Even then, however, participation is not properly formed. Instead, there are some formal or informal processes, involving (in a non-systematic way) certain local actors and stakeholders in the elaboration of plans.

Although participation provisions are similar between MSP and TSP, competencies in spatial planning slightly differ between the land and the sea. In land, they fall under the jurisdiction of the Ministry for the Environment (which is the only one competent for spatial planning). In the marine space, however, competencies belong to two different Ministries: a) the Ministry for the Environment, having responsibility for all spatial planning procedures, and b) the Ministry of Mercantile Marine, having responsibility for the surveillance of the seas. Beyond those two, however, other Ministries that are also involved in spatial planning are those articulating/providing sectoral policies with a spatial impact [e.g. Ministry for Agriculture and Fisheries, Ministry of Culture (for underwater antiquities) etc.].

3.2. Administrative and planning challenges in the Corinthian Gulf

The Corinthian Gulf (or the Gulf of Corinth) is a deep and narrow inlet between the Ionian and the Aegean Seas. Its length reaches 130 km, whilst its width varies between 8.4 and 32 km. Regarding its maximum depth, it is measured at 935 meters (3,068 ft).

The coasts of the Corinthian Gulf are known to have been inhabited since the neolithic era. The Gulf served as a shipping route in ancient times, i.e. well before the opening of the canal in Corinth (in 1893 A.C.). Today, the Gulf of Corinth is a vivid and resourceful marine and coastal space with an unusual number of administrtive units having jurisdiction and responsibility for its environmental protection, thus for the permission of human activities to take place there.

At the Regional level, there are four having competencies in the Gulf: the Peloponnese Region, the Central Greece Region, the Western Greece Region and the Attica Region. At the local level, thirteen are the related Municipalities with a sea front in the Corinthian Gulf: Aegialia; Velo-Vocha; Distomo – Arachova – Antikira; Dorida; Thebes; Corinth; Levadia; Loutraki – Ag. Theodori; Mandra – Idilia; Nafpaktia; Xylocastro; Patreon; Sikionia. Given this administrative complexity, a special Association was launched in 1993, being explicitly responsible for the Corinthian Gulf as a whole and not as a fragmented natural and administrative unit.

However, despite the launching of this special Body, the Corinthian Gulf is still not seen as an explicit ecosystem entity. Even today, administrative complexity is present and is always reflected in spatial planning implementations. Indeed, the management of (parts of) the Corinthian Gulf is tackled by four Regional Spatial Plans (the ones for Central Greece, the Peloponnese, Western Greece and for Attica). At the same time, it is also managed by a great number of Local Spatial Plans that are approved at the Municipal level. Needless to say, all these Plans usually ignore one another, i.e. overlook potential conflicts among them.

In short, having such natural attributes and geomorphology and of course such peculiarities in administrative terms, it is obvious that the Corinthian Gulf will never be wisely managed or governed, unless it is regarded as a marine ecosystem, extending from the sea to the land and not vice versa (from the land to the sea, which is the common practice up to now).
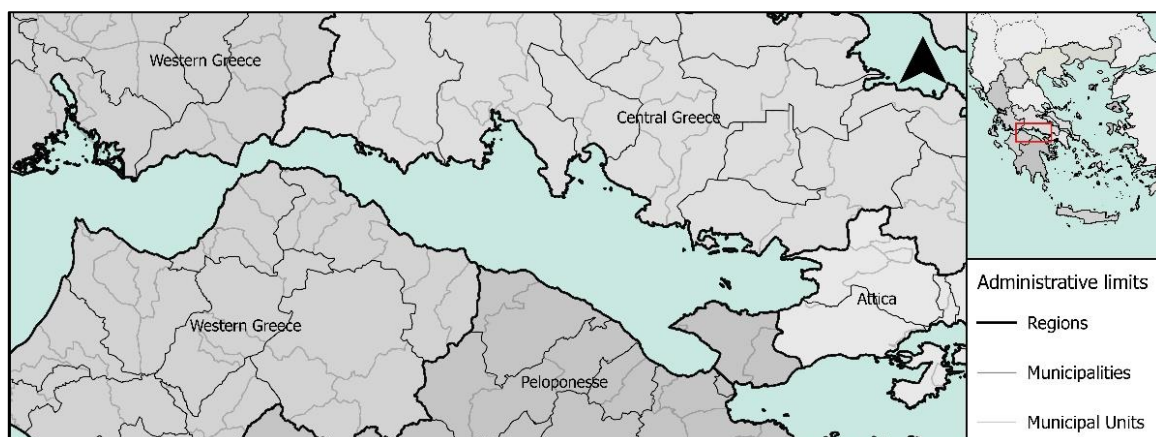

Figure 1. The Corinthian Gulf and its administrative structure

3.3. Public participation experiences from the Ionian Sea

During 2015, PAP/RAC (under the UNEP/MAP responsibility) financed the University of Thessaly (Greece) to carry out a project for MSP (and ICZM) in the Mediterranean Sea. The case study of the project focused on the Ionian Islands Region, in which apart from methodologies and tools for MSP, governance schemes and public participation were also tested.

The testing of these procedures highlighted the following organizational difficulties (that are uncommon to territorial governance in the land) (PAP/RAC and University of Thessaly, 2015):

➢ Skepticism on behalf of the Participators and Actors regarding the purpose of the project, especially since no governmental policy for the marine parts of the country was known up to then,

➢ Skepticism on behalf of the Participators and Actors, regarding other stakeholders' participation in the meeting (due to previous conflicts among them, etc),

➢ Adversities regarding the ability of Participators and Actors to reach the venues of the meetings (due to poor ferry connections, bad weather conditions, etc),

➢ Absence of an up-to-date list of Authorities, NGOs, etc, resulting in time-consuming efforts to reach all competent stakeholders and Officers.

Other difficulties observed, as part of the simulation processes, regarded participation differentiations:

➢ Participation in the project meetings varied considerably per stakeholder group (both in terms of representativeness and of active participation in the discussion),

➢ More influential and powerful stakeholder groups were either absent or very cautious when expressing their views,

➢ Involvement in the project meetings also varied per island, according to the "theoretical distance" from the regional or government decision-making centers.

4. Conclusions

Marine space constitutes a fragile ecosystem, undergoing tremendous pressure lately and facing many challenges and threats, due to the growing competition for the marine resources. Given these threats, spatial planning in the marine space (MSP), which is a new concept, is considered to be a promising procedure in tackling developmental and management issues related to the oceans and seas and a promising tool for the protection of the environment and the natural ecosystem.

Being a totally essential part of marine spatial planning (MSP), governance too, is of paramount importance for reaching consensus and thus, for the formation of balanced policy and decisions, regarding the growth and development of the marine space. However, even though planning and governance in land has a long tradition, not

all methodologies, concepts and tools can be automatically "transplanted" in the marine space. Given this fact, irregularities and unfamiliar issues to be considered in planning and governance when dealing with the marine space regard:

Planning issues

✓ The legal status (beyond Territorial Waters and up to the State's jurisdiction limits)
✓ The geopolitical context (especially in regions where severe geopolitical conflicts take place)
✓ The property status (since usually marine state is in public hands)
✓ The deficiencies in geo-spatial data (calling for special considerations, or even extrapolations)

Governance issues

✓ The lack in administrative and international borders (such as the EEZ, the Continental Shelf etc),
✓ The necessity for transboundary cooperation, especially for the protection of the natural and cultural ecosystems, as well as the natural resources,
✓ The different kinds of stakeholders involved in the participation procedures (compared to the land),
✓ The unusual number of administrative Heads/Offices having jurisdiction for the same marine area, as well as the sharing of competencies at the governmental level for the marine space.
✓ The alienation of the islanders (both from the inland and form the regional or the governmental decision-making centres).

To conclude, implementing planning and practicing governance in marine environments cannot just rely on experience acquired from the land. Instead it has to be considered thoroughly, having always in mind the peculiarities and irregularities related to the marine space (compared to the land). In any case, given the fragile geopolitical issues related to the marine parts of a coastal country (if no EEZ is proclaimed), MSP and governance in the marine space should always consider the involvement of foreign countries and international Bodies when planning and governing the marine space.

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