PLANNING WITHOUT BORDERS: IMPLEMENTATION OF MARITIME SPATIAL PLANNING DIRECTIVE (2014/89/EU) IN THE ADRIATIC IONIAN REGION

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Abstract
Over the last decade, in response to the increasing demand for maritime spaces a
2012), a growing attention has been paid to Maritime Spatial Planning, identifi
promoting a rational allocation of maritime uses and for balancing the demand for
maritime activities with the need to preserve the integrity marine ecosystems (Ehl
tough spatial planning is not a formal EU competence, the European legislator has
develop a common approach to maritime spatial management across all Member States
COM(2008)791 final). In particular, with the entering in force of the new Directiv
be ratified within 2016, all Member States will have to identify competent author
boundary maritime spatial management plans within 2021.

The development of trans-boundary MSP and its integration with existing planning s
of specific challenges, mainly in terms of cooperation efforts, which are required
adaptive planning schemes in marine spaces (Ehler & Douvere, 2009). The first or
boundary cooperation. The adoption of an ecosystem-based approach to MSP (Dir. 200
necessity to stimulate neighbouring countries to embed their marine spatial plan
context that takes into account ecosystem issues beyond their national boundaries
the same time, the cross-border nature of maritime affairs requires a strong
barriers imposed by administrative borders and international framework agreements
also be fostered among subjects with authoritative power on maritime spaces a
planning authorities, in order to promote a multi-scalar approach to MSP and to ov
national and sub-national scale. A second, important, organizational challenge co
coordination: it is indeed necessary to promote the cooperation among public bod
the sectoral development of those maritime activities, whose management has to be
MSP umbrella. Finally, MSP should be based on a continuous process of institutio
based on mixing expert, scientific and sectoral knowledge and ultimately aimed a
planning process.

The guiding question to be answered in this work concerns the role that planners s
On the one hand, it is argued that spatial planners could guide this coordinat
organization of collaborative and adaptive MSP, also contributing to foster the in
existing land planning systems (Smith & Maes, 2011). On the other hand, it is
will have to significantly update their professional skills and competences to p
challenges posed by trans-boundary MSP issues.

As an example, the case of the ADRIPLAN Project (ADRIPLAN.eu) will be presen
supported by the DG Mare - is setting the first example of maritime spatial pla
Ionian Macroregion, involving 6 countries in the basin (Italy, Slovenia, Croat
Greece). It will test a transboundary MSP example for the AIR and for two focus
realistic scenario at 2020 and proceeding with the definition of an actions por
programs 2014-2020, local land and coastal planning, regulative and legal system
planning test for AIR will terminate by July 2015.

1. Introduction: towards a common maritime spatial management in the EU

Coastal and marine ecosystems have been subjected to increasing anthropogenic p
fifty years (UNEP MEA 2005). The demand for maritime and coastal spaces for diff
one for natural resources are indeed constantly and rapidly increasing (UNESCO 20

2009). On the one hand, this is leading to an overexploitation of marine and coas
loss of biodiversity in marine and coastal systems and to the consequent decr
ecosystems to produce ecosystem services (see Worm et al. 2006). On the other han
have emerged with respect to the use of marine and coastal spaces. As a consequenc
develop a comprehensive framework capable of promoting the definition of common ma

The need to define policies and tools for the integrated management and planning
areas has acquired an increasing relevance in the European context. The EU l
foundations for the development of an Integrated Maritime Policy (IMP, launched t

Blue Paper), which in general terms aims at conciliating economic developm
have been established by the Blue Growth Strategy (2012/494/EU) – with marine a
requirements, as defined by the Marine Strategy Framework Directive (Dir. 2008/
identified Maritime Spatial Planning (MSP) as a proper tool to be used for the rat
uses. According to the new Directive on MSP (2014/89/EU), all Member States wi
Directive within 2016, to identify competent authorities for MSP and to dev
management plans within 2021.

A functional coexistence of human activities in the marine space and the reduc
marine and coastal environment are some of the main goals of the European polic
Directive 89/2014 identifies MSP, using an approach ecosystem-based (EBA), as t
achieve these goals. Eheler and Douvere (2007) defined Maritime Spatial Planning
analyzing and allocating the spatial and temporal distribution of human activities
achieve ecological, economic and social objectives that have been specified throu
order to be effective, the process must have some key characteristics. It has to
both across sectors and governments, adaptive, thus capable of learning from exp
oriented, and ecosystem-based. The application of an ecosystem-based approach ai
collective pressure of all the human activities is kept within levels compatibl
current ecosystem services and that the capacity of marine ecosystems to respond t
is not compromised. As a matter of fact EBA is defined a process that recognizes t
the ecosystem as a whole and humans as part of the ecosystem and of its dynamics.
of ocean space are thus closely interrelated and need to be considered as a w
ecosystem-based approach are to: (i) balance the increasing number, diversity
activities with the sea s ability to provide services; (ii) incorporate appropria
and cultural perspectives; (iii) support management that is coordinated at the sc
political jurisdictions (Foley et al. 2010).

2. Implementing Maritime Spatial Planning: new challenges to be faced

A first important element to be considered when approaching MSP is that it is a
researchers, planners and practitioners. Despite a number of approaches to in
developed, a common methodological framework has not yet been established. Further
have been implementation, so that there is a substantial lack of transferable bes
the development of the different phases which composed the adaptive MSP planni
consideration concerns the difficulty of applying a common framework to a process
place-based, i.e. grounded on the specificity of local economic and ecological dyn

In this framework, a major challenge is represented by the development and imp
within a context the maritime one where borders are often uncertain and fleeti
to the one used in land-based planning. A substantial lack of well defined mar
boundaries is often accompanied by disagreements among involved authorities and st
to the boundaries established. The adoption of transboundary planning in a maritim
at least four significant challenges:

1) Integrating MSP in existing (land-based) planning schemes

The inclusion of maritime spaces within existing planning systems constitutes a fu
at the governance and at the implementation level. It deals not only with the app
MSP, but also with the adoption of a new perspective in approaching both to ma
planning. The integration of MSP in the existing, land-based, planning schemes r
trans-boundary cooperation effort: planning schemes and planning management syste

country to country. Not only competent authorities for planning operate at diffe
management of maritime activities is highly fragmented (within and among cou
competences fields, spatial jurisdiction and regulatory frameworks. Planners shou
the relevant bottleneck related to governance and management fragmentation, and
definition of planning measures the definition of spatially e sectorally integra

2) Defining shared management and planning boundaries

Notably, the need to adopt a new, sea-oriented, perspective does not only emerge f
specific normative provisions (i.e. to the elaboration of MSP plans within 2021),
necessity to solve both user-user and environment-user conflicts. This need h
local/regional scale, and has been raised by stakeholders involved in the use/ma
coastal spaces. The necessity to define, at different scales planning and mana
shared by different authorities and involved stakeholders is crucial in order
politically accepted plan.

3) Define boundaries capable of embracing ecosystems

The previously described ecosystem-based approach to maritime spatial planning
planning measures that consider the specificity of local ecosystems and environ
pursue this objective, a significant effort is needed to overcome the definition o
considering political issues related to competence areas (e.g. national boundari
traditional approach to boundary definition should necessarily be based on trans-b

4) Knowledge sharing

Finally, the definition of integrated MSP strategies and actions should be based o
information and, in more general terms, on a mix of expert, scientific, operat
Acquiring data and information from different sources (including relevant sta
overcoming of science-policy barriers and the fostering of cross-border cooperat
acquisition and management.

3. A new role for planners

The challenges described in the previous part require a revision of the role that
complex process of decision-making posed by MSP. As a matter of fact, an effective
and coastal areas involves not only technical capabilities of problem solving, bu
building among sectors and economic actors, capacity building between communiti
policy-makers, and sharing of knowledge and technical data as recommended in the E
Policy (IMP). MSP requires a substantial new role of planner as coordinator of
disciplinar competences. In certain sense planner as to anticipate the extensio
maritime spaces, finding proper connection between land&sea starting with existist
The adoption of a new perspective requires an update in the planning competence
plans will have to encompass social, cultural, economic and environmental issue
include in the planning team planners with heterogeneous knowledge and expertise.

4. Lesson learned from the EU experiences

Following the increasing importance attributed to ICM and MSP and within the no
has led to the elaboration of the Directive on MSP, a number of planning exercis
been developed at different scales. Within the EU, the most relevant examples
financed by the European Commision – are the following (see EC Maritime Affairs

1. BaltSeaPlan – Baltic Sea Region Programme project "Introducing Maritime Spatial
   Baltic Sea" (2009-2012): aiming at identifying MSP strategies for the Baltic
   eight focus areas, the project was strongly focused on cross-border cooperati
   coming from Germany, Poland, Denmark, Sweden, Estonia, Lithuania and Latvia c
   Vision for the Baltic Sea, based on the motto Think Baltic, act regionally .
   identifies pan-baltic objectives and strategies, while establishing the princ
   according to which spatial challenges have to be dealt with at the lowest mos
   level.

2. Plan Bothnia[ii] – Preparatory Action on Maritime Spatial Planning in the Baltic Sea (2010–2012): transboundary pilot project developed in the Bothnian Sea. The Pilot Plan, jo Sweden and Finland and coordinated by HELCOM, aims at providing a long-term s area analysed, also considering possible developments in the land-sea interfa integration of maritime spatial plans in the existing national planning frame established cover ecosystem integrity; protected areas; maritime traffic; ren regional development.
3. MASPNOSE[iii] – Preparatory Action on Maritime Spatial Planning in the North Sea starting from the identification of specific priority uses and strategic sect the project developed an international fishery plan for the Dogger Bank in th an exploration of the potential for collaboration on the Thornton Bank in the North Sea.
4. TPEA[iv] – Transboundary Planning in the European Atlantic (2012–2014): the proj the DG Mare, the project involves partners from Ireland, Portugal, Spain and focused at developing a transboundary planning proposal for two focus areas, region (within the waters of Northern Ireland and the Republic of Ireland) ar Atlantic (within the waters of Spain and Portugal situated around Guadiana).

Such planning exercises have been developed not only to solve effective confl actual allocation of maritime uses, but also to define possible methodological and used in the definition of integrated and ecosystem-based maritime spatial plans. A planning exercises and studies, the following elements have a crucial role:

- Definition of a common vision for maritime areas of strategic importance at
- Enhancement of cross-border cooperation to support EU cohesion and integrate
- Acquisition of data and information related to local ecosystem dynamics, a economic and political characteristics of the uses analysed;
- Identification of relevant stakeholders to be involved in the definition of Establishing of a dialogue among the stakeholders involved in the use an maritime spaces;
  Increase of the coordination among policy makers and coordinators.

The most recent planning experimentation developed in this context is constitu project, financed by the DG MARE, which is finalized to propose and recommend a pl Adriatic-Ionian Region (AIR) (Fig. 1).

Figure 1. Adriatic Ionian Region (IUAV, 2014)

5. Implementing MSP in the Adriatic-Ionian Region: the ADRIPLAN Project

Concerning the AIR, MSP is an important part of EUSAIR (EU Strategy for the A Region), defined as an integrated framework to address common issues of EU Membe Countries located in the Adriatic–Ionian Macro-region. ADRIPLAN (which stands f maritime spatial PLANning) is a 18-months project started in December 2013, a experimentation led in the Mediterranean Basin. It aims at defining a commonly ag border MSP in the Adriatic-Ionian Macro-region, with a particular focus on two a Adriatic and the Southern-Adriatic/Northern-Ionian.

The project, coordinated by CNR-ISMAR, is developed by a transnational partn technical partners (mainly Universities and Research Institutes) which are respo project activities under the steering, the supervision and the support of 9 in regional authorities) and of an external Advisory Board. Through the direct involv and the inclusion of relevant stakeholders in different phases of the planning pro identify key issues to be faced, (ii) define strategic objectives to be set for th and cross-border planning options both in the macro-area and in the two focus are the elaboration strategic recommendations for the development of maritime spatial define a planning proposal for the allocation of uses in focus areas characterized and by high pressures of the identified uses on ecosystems and environmental ADRIPLAN also aims at constructing a solid knowledge base to be used within th available for the elaboration of future plans.

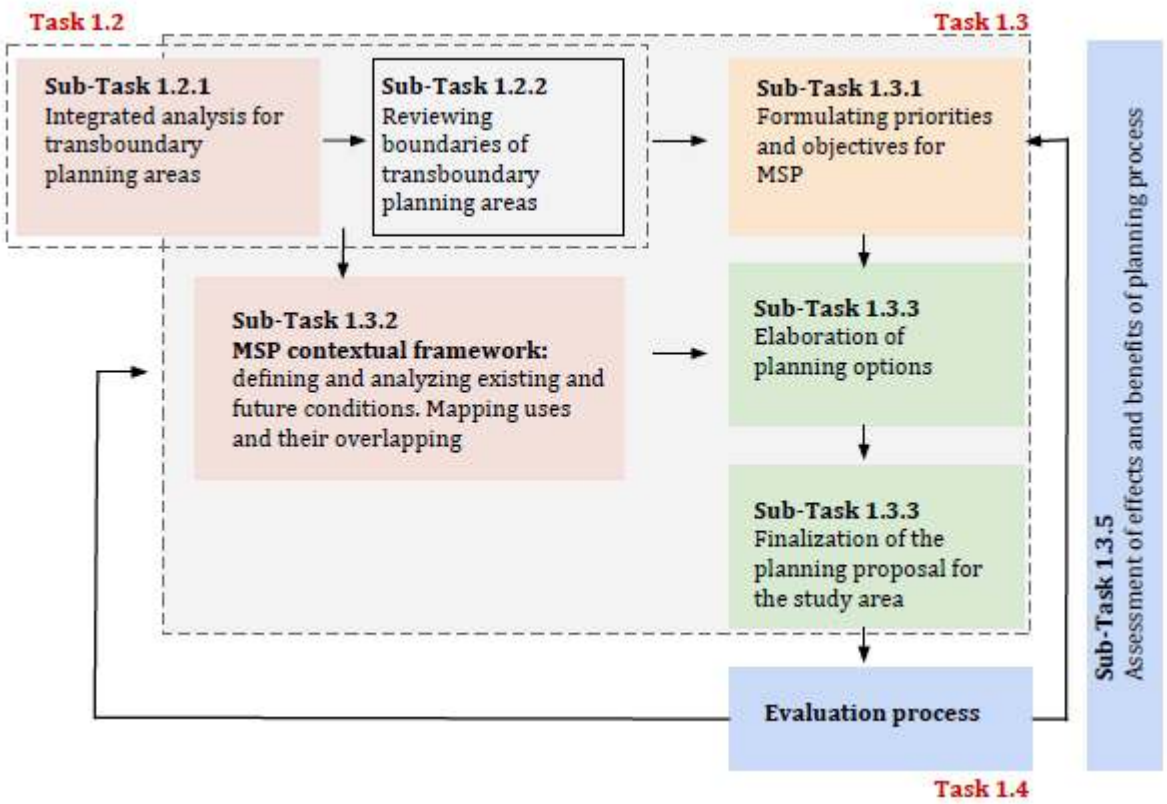

Figure 2. ADRIPLAN Methodology (IUAV, 2015)

Accordingly with the EU Directive on MSP (2014/89/EU), the literature availab
experiences conduced both at European and extra-European level, ADRIPLAN metho
following an Ecosystem-Based Approach. The project methodology is constructed to d
future oriented and integrate plan of the Adriatic-Ionian area and is articulated
First of all, an analysis of the transboundary planning area is structured to col
area s existing conditions, dynamics and current pressures on the environment. Aim

identify human activities present in the project area;
identify the existence of vulnerable ecosystems;
identify the socio-economic issues connected to sea-based activities;
identify planning and governance structures in the different project coun
scales;
identify limitations on current and potential uses;

Secondly, considering that the project aims at developing proposal and recommenda
on the Adriatic-Ionian Macroregion, but also on two Focus Areas (1. Northern
Adriatic-North Ionian), a review of boundaries of transboundary planning areas is
with EBA, the definition of boundaries have to be made considering the different
including: (i) environmental pressures and needs; (ii) intensity and multiplicity
involved in the process; (iv) policy priorities and cross-border issues (v) co
different scales.
Following these two preliminary activities, the formulation of priorities and br
Macro-region and for the two Focus Areas, is established in order to guide the sub
considers the strategic goals and objectives promoted at the International and
transnational, national and local stakeholders issues and needs.

In parallel with this activity, the definition and analysis of existing and futur
uses and uses-environment conflicts, compatibilities opportunities and potential s

activity is performed using different tools, data elaboration methodologies and u
data and information collected in the previous phases. Moreover, the analysis of
conditions, made taking into consideration the defined priorities and objectives,
planning issues, options and measures as indicated in the process of planning elab
In order to acquire all the necessary information, data and suggestions to perform
an EBA, specific activities of stakeholders involvement must be planned and condu
stakeholders acting at different scales and level is essential to support the pla
needs, conflicts, priorities and dynamics.
Finally, an activity of monitoring and evaluation of the different phases perfor
results achieved is established in order to make the whole process as adaptive as

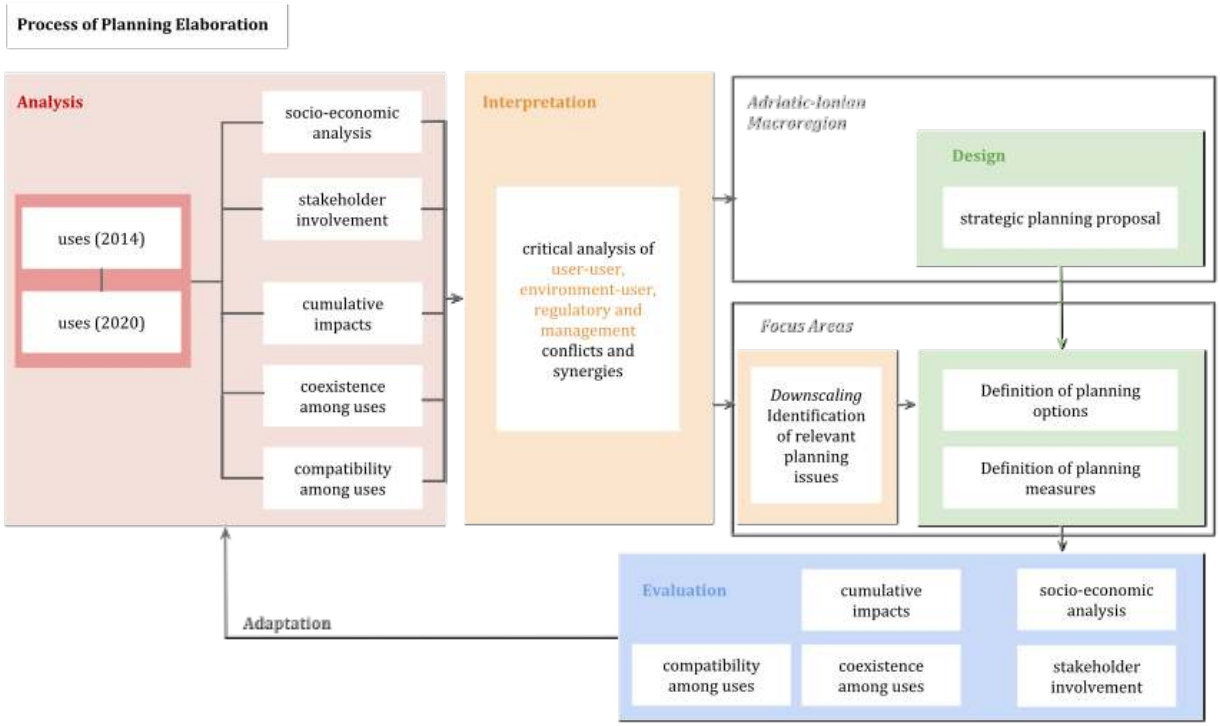

Figure 3. The process of Planning Elaboration (IUAV, 2015)

For what concerns more specifically the process of planning elaboration, in ADRIE
cyclical and adaptive (Fig.3), based on the steps established by the methodologic
Fig. 2.
In the first phase, current and future uses are analysed, considering interact
environmental components. Future uses are part of an explorative scenario (a
interactions of expected projects and already planned initiatives in the region.
future uses is aimed at identifying user-user and environment-user conflicts ar
respectively minimized or fostered by properly designed planning actions, but a
planning issues (including management and regulatory issues influencing planning
priorities by stakeholders involved in the process.
In the second phase, all the information acquired are interpreted, also in light
relevant stakeholders, including institutional actors operating at the national a
face the complexity deriving from the intensity of uses in the area, this critica
starting from the analyses of pivotal uses. These can be defined as pivot of
starting points upon which the planning proposal should be developed, always
objective of achieving an allocation of uses capable of minimizing existing and
uses and between maritime uses and the marine environment in a tranboundary pers
uses are not more important than the others, but are the ones with the higher capa
and of allowing for the emergence of existing and potential conflicts that need to
integrated and interdisciplinary approach. This phase will result in some comment

conflicts/synergies, to be potentially addressed by a strategic plan, as well as potentially addressed by specific planning measures. These will provide the bas planning actions, as defined in the following step.
Thirdly, two kinds of planning proposal are elaborated: a strategic, large-scale Ionian macro-region and some operative planning measures (pilot actions) for t strategic plan will represent a technical and political statement of policy from area of interest and competences. It will consist in a cartographic part and in a former will identify: (i) boundaries for potential management and regulation in management zones; (iii) Potential development areas for pivotal uses; (iv) Protect non-suitable areas for the development of specific uses, in relation to the environmental components and/or to the coexistence of non compatible uses, etc.). (i) at drafting indications/suggestions for regulating specific uses/maritime acti management schemes; and (ii) at providing indications to support trans-boundary co specific themes. The pilot measures will be developed at the focus-area level, a specific challenges emerged always assuming a multi-scalar and- where applica perspective. Planning measures will consist in a zoning proposal and in a descript the indication provided by UNESCO-IOC (2012), the zoning proposal will consist designing zones based on the underlying topography, oceanography and distribution 2) designing a set of indications to define permits, licenses and use rules withi will be set accordingly three elements: a) the environmental components units at b) the vertical zoning where it is necessary to provide different rules of use w case also on the seafloor; c) the temporal zoning to define a timeframe (both periods) to set boundaries, permits and regulations, where needed.
Finally, guidelines for the evaluation of planning measures will be provided, potential redefinition of proposed actions.
To sum up, Maritime Spatial Plan will include a vision, policies, objectives and relevant both at AIR level and at the focus area level to guide decision make undertake activities or development. Taking into consideration the minimum re Directive (EC, 2014), the planning documents will consist on the minimum of:

- strategic spatial visions for the areas;
- targets for key activities and interests, considering maritime activities a
- guidance for statutory planning activities;
- proposed local and transboundary spatial strategies;
- locational possibilities and zoning proposals;
- good practice / user recommendations.

Where possible, more detailed proposals for areas requiring special attention will

6. Conclusions

For too long coasts and maritime space have been seen as sectoral environment mainstream policy regarding land and environmental planning framework. With the approach supported MSP, maritime space will receive the same attentions in terms of land and territorial space. In this sense the expansion of planning processes t connection between land&sea systems with a particular attention to coastal areas t border between the territorial and maritime space. Surely after the approval of EC new perspective in terms of professional skills and competence, is coming for Europ

[i] see http://www.baltseaplan.eu/
[ii] see http://planbothnia.org/.
[iii] see https://www.wageningenur.nl/en/show/Maspnose-Maritime-spatial-planning-in-the
[iv] see http://www.tpeamaritime.eu/wp/

[v] see http://data.adriplan.eu/.

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