



Constraints and Solutions for the implementation of MAES in European Overseas

Acronym: MOVE

Title: MAPPING AND ASSESSING THE STATE OF ECOSYSTEMS AND THEIR SERVICES IN THE OUTERMOST REGIONS AND OVERSEAS COUNTRIES AND TERRITORIES: ESTABLISHING LINKS AND POOLING RESOURCES

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Summary

Ecosystems play crucial functions for our economic and social well-being that go under the name of Ecosystem Services (ESs). The uptake of ESs in national public policies and decision-making is advancing slowly; the application of the concept still lags behind in many national and subnational systems within the European Union (EU). Delays are particularly long in the EU Outermost Regions (ORs) and Overseas Countries and Territories (OCTs). This report presents the research we conducted in some of these ORs and OCTs between 2020 and 2021. Data were collected through semi-structured interviews in three ORs and three OCTs related to four of the current Member States of the EU (France, the Netherlands, Portugal and Spain) and the United Kingdom (UK). The report describes the level of knowledge and use of ESs in these six overseas entities and analyses the major obstacles to the uptake and presence of ESs in public policies and policy practices. Finally, it proposes possible solutions based on the experience of the practitioners interviewed for this study.

Publishable Summary

Idem



Contents

PART I – Introduction	5
1. Ecosystem services in public decision-making	6
2. Methodology	8
PART II – Level of uptake of ESs	10
3. Knowledge of ESs	11
4. ESs in legislative and regulatory frameworks	13
PART III – Major problems for the uptake of ESs in public decisions	15
5. Conceptual innovation	16
6. Administrative capacity	18
7. Political coordination	20
8. Scientific advice	22
9. Clashes with vested interests	24
PART IV – Possible paths for improvements	25
10. Policy recommendations	26
Conclusions	29
References	30



MAPPING AND ASSESSING THE STATE OF ECOSYSTEMS AND THEIR SERVICES IN THE OUTERMOST REGIONS AND OVERSEAS COUNTRIES AND TERRITORIES: ESTABLISHING LINKS AND POOLING RESOURCES

PART I- Introduction

1. Ecosystem services in public decision-making

Ecosystems play crucial functions for our economic and social well-being. These beneficial functions are referred to as ecosystem services (ESs); the concept received worldwide attention thanks also to the Millennium Ecosystem Assessment that took place in the early 2000s (MA 2005). Examples of ESs are the provision of food, freshwater, clean air and materials (e.g., timber). Other important, though less tangible, ESs are the protection from natural disasters (e.g., through the moderation of floods), regulation of climate, purification of water, pollination of crops, decomposition of waste, and regulation of pests and diseases. Ecosystems also provide cultural services (e.g., recreational use and physical health) (Wanjui 2013). Through ESs, the planet's natural assets (i.e. Earth's environmental resources) provide us with important inputs for our economies and societies, which makes them our natural capital (UNSD 1997). The degradation of natural ecosystems alters their provision of ESs with negative consequences for human well-being (McFarland & Gerdes 2016). Therefore, the concept of ESs could have a positive impact on policymaking for biodiversity conservation, spatial planning and climate change adaptation strategy at all levels of governance.

However, the uptake of ESs in national public policies and decision-making is advancing slowly; the concept has remained predominantly in the international debate. This happens in many European countries despite the effort of the European Union (EU). During the last decade, EU policies have promoted the concept of ESs. The EU Biodiversity Strategy 2020 aimed to protect biodiversity and halt the loss of species included a call for all Member States (MSs) to map and assess ecosystems and their services (MAES) (EC 2011). More recently, the Green Deal (EC 2019) and the new Biodiversity Strategy 2030 (EC 2020) have confirmed the need to embed the concept of ESs into decision-making and policy practices. This political acknowledgement of ESs has brought them forward in the policy discourse and partially influenced policy developments in national systems where legislative revisions are timidly trying to bring national policy frameworks more in line with EU policy objectives.



MAPPING AND ASSESSING THE STATE OF ECOSYSTEMS AND THEIR SERVICES IN THE OUTERMOST REGIONS AND OVERSEAS COUNTRIES AND TERRITORIES: ESTABLISHING LINKS AND POOLING RESOURCES

Through EU-funded projects, the EU also contributes to the uptake of ESs in national and subnational public administrations and environmental decision-making of its Member States (MSs) by requesting the monitoring of ESs in project activities. By engaging in these projects, public officials are becoming more familiar with the concept and its application, and are likely to help spread such knowledge within their organisations. However, the application of ESs still lags behind in many national and subnational systems within the EU and, particularly, in its outermost regions (ORs) and overseas countries and territories (OCTs).

This report presents the research we conducted in some of these ORs and OCTs across a semester between 2020 and 2021.

2. Methodology

Our data collection relied on interviewing. Nine semi-structured interviews were conducted between September 2020 and January 2021 in several ORs and OCTs of the EU. We interviewed participants from relevant governmental departments or agencies, i.e. mainly those competent for spatial planning and environmental protection. In two cases, scholars knowledgeable about the OR or OCT were also involved because they brought an additional perspective in our set of interviews or supported and complemented the information provided by the targeted interviewee. In the first case, the interview was treated as a stand-alone contribution; in the second case, the information provided was merged with that coming from the targeted interviewee. The nine interviews allowed us to cover three ORs and three OCTs from four of the MSs¹ with overseas entities – i.e. France, the Netherlands, Portugal and Spain – and the United Kingdom (that has recently left the EU) (table 1).

Table 1 – Selection of Europe’s overseas entities.

	ORs	OCTs
France	Reunion	New Caledonia
The Netherlands		Sint Maarten
Portugal	Azores	
Spain	Canary Islands	
United Kingdom		Falklands

Although we tried to cover all MSs (and the UK) with overseas entities and have a balanced participation between ORs and OCTs, the design of our research project did not aim at generalisability, and we fully acknowledge the limitation to any effort of generalisation to all ORs and OCTs. In the framework of our qualitative approach based on a small number of cases, our aim was to highlight the level of knowledge about ESs, their uptake in legislative and policy frameworks, and the major obstacles to their inclusion in decision-making in some of Europe's overseas entities.

¹ The only EU's MS with overseas linkages that was left out of our investigation is Denmark as it was not part of the EU-funded project MOVE.



MAPPING AND ASSESSING THE STATE OF ECOSYSTEMS AND THEIR SERVICES IN THE OUTERMOST REGIONS AND OVERSEAS COUNTRIES AND TERRITORIES: ESTABLISHING LINKS AND POOLING RESOURCES

We have treated the data obtained during our interviews in a way that makes it difficult to trace the exact source; this was done on purpose, to respect our commitment to the principle of anonymity and confidentiality.



PART II – Level of uptake of ESs

In the next two chapters, we present the results of the interviews conducted in the six overseas entities with regard to three dimensions in the uptake of ESs:

- the individual understanding of ESs (chapter 3),
- the state of organisational knowledge about ESs in national and subnational public agencies (chapter 3),
- the presence of ESs in the legislative frameworks (chapter 4).

3. Knowledge of ESs

3.1. Personal knowledge and perception of ESs

All participants in our interviews knew the concept of ESs. Interviewees showed personal knowledge of ESs either based on their personal, professional experience or educational background. Our selection of interviewees biases this type of response as we relied on a purposive sampling of our interviewees so that interviewers and interviewee would speak a "similar language".

The purposive selection of our interviewees also explains their positive attitude towards ESs. Mapping and assessing ecosystems and their services (MAES) was commonly perceived as relevant for the territory.

3.2. Organisational knowledge of ESs

In general, knowledge of ESs emerged as part of the participants' personal (educational or professional) background. The knowledge about ESs in organisations seems to vary considerably across the different geographical contexts we have investigated.

In some cases, from very different geographical and political contexts, there is no awareness, familiarity and understanding about ESs within the public agencies that are competent for the environment. The concept of ESs is not yet integrated into the language of national or subnational (environmental) administrations. The concept of ES remains quite unknown in other types of public organisations (e.g., research institutes) also involved in environmental matters.

In other cases, the concept is used within the organisation where the interviewees worked. One interviewee reported that the rationale of ESs – if not the exact wording – is also conveyed by public officials while they advise policy-makers. In this science-policy interaction, it is common practice to leave out the technical terms because policy-makers would not understand it. The concept of ESs is more simply communicated as the benefits humans can get from their natural environment.

4. Ecosystem Services in legislative and regulatory frameworks

In the overseas entities we have investigated, ESs are not often included in sub-national or national policy frameworks, where sub-national refers to ORs of EU countries and national to OCTs linked to MSs of the EU.

The country may simply lack environmental legislation that is recent enough to include the concept of ESs. In other words, some national laws are outdated and precede the same concept of ESs.

The absence of ESs from national or sub-national laws can be partially balanced by the acknowledgement and adoption of the concept in national political strategies (rather than legal documents) and policy debate. However, this only applies to some areas: in some context, the concept is absent from the policy discourse about environment and natural resources.

Another way ESs have entered public policies even in the absence of specific reference to this term in the legislative frameworks is through policy practices. Considerations on ecosystems can, indeed, enter decision-making processes under other framings.

EXAMPLES. *One interviewee reported that all national policies need to include considerations on how they will impact the environment (“environmental sustainability impact”). In this case, policy decisions are screened for environmental sustainability and ecosystem impacts before they are adopted; this is when environmental experts within public agencies can advise policy-makers on ESs. Impacts on ecosystems are also duly taken into account when an Environmental Impact Assessment is conducted for specific projects. Another interviewee argued that actions already taken in the territory – for instance for the restoration of habitats – are probably associated with the idea of ESs although there is not full awareness of ESs, nor any policy initiative referring explicitly to ESs.*



In the case of subnational entities – like the ORs – it can happen that ESs are not yet integrated into the policy landscape of the region, although they have been foreseen in national documents.

EXAMPLES. *At national level, ESs are taken up in national environmental legislation (e.g., in France – Loi n°2016-1087 pour la reconquête de la biodiversité, de la nature et des paysages) and national strategies for biodiversity (e.g., in Spain – Plan estratégico del patrimonio natural y de la biodiversidad 2011-2017).*



PART III – Major problems for the uptake of ESs in public decisions

This section analyses the major obstacles to the uptake and use of ESs in decision-making. Several hindrances emerged from the interviews we conducted; they have a cognitive, organisational and political nature as we explain in the following chapters.

5. Conceptual innovation

A first obstacle in the uptake and use of the ESs resides in the novelty of the concept itself. More precisely, interviewees have stressed the complexity of the concept as a major impediment.

ESs are not easily understood everywhere we conducted our interviews. The status of OR and OCT seems to determine a substantial delay in some cases. We present here the main issues raised during our interviews and related to the concept of ESs and the conceptual innovation it brings along.

- ESs is an innovative approach, a “new way of doing things”; hence, it requires a high technical skills level.
- The mindset of the human resources employed in public agencies might – in some cases – be too old to be permeable to new ideas and innovative approaches to solve public problems.
- The concept implies a paradigmatic shift that demands a strong commitment to its use by the technical and scientific personnel of public administrations and the scientists advising public decision-makers before it can reach policy-makers practitioners and the society as a whole.
- A clear awareness of decision-makers about the importance of ESs and their benefits is still lacking.
- ESs is an “alien concept” remote from decision-makers’ priorities and people’s daily life; it is sometimes perceived as too innovative and applicable mainly in the “First World”.
- The institutional (i.e. legislative and regulatory) frameworks in which public agencies operate are often outdated, precede the development of the ESs’ concept, and are not aligned with this recent scientific development.



- The novelty of the concept also explains its low popularity among the general public. However, public awareness of environmental issues varies across the cases we have studied.
- Some target groups (e.g., the farming community and the fishing industry) may understand the substance of what ESs mean but are not familiar with the term itself.
- The core of ESs is well known in traditional knowledge and probably more deeply rooted than in the Western culture, though under other labels than ESs.

6. Administrative capacity

The conceptual innovation embodied by ESs is strictly linked to another important obstacle to the use of ESs in public decision-making; it consists of the weak in-house capacity, understood here in terms of expertise and personnel.

Our interviewees raised the following key aspects about administrative capacity.

- There is a general need for more knowledge and know-how about the ES methodology within the public agencies competent for the environment.
- However, human resources are undersized.

EXAMPLES. *One of our interviewees reported that the competent team in the public agency has just expanded: until some time ago only one person was dealing with the environmental area. Even the current number (i.e. three employees) is not sufficient to cover all environmental sub-areas, from biodiversity to land management, from pollution to energy and climate change. Likewise, in a very different geographical context, the public agency responsible for environmental matters had recently expanded with the arrival of one person. These increases of human resources are significant in relative terms, but still too little in absolute numbers.*

- The weak staffing often obliges public agencies to rely on external consultancies, which deprives the organisation of the possibility to build capacity.

EXAMPLES. *The regular reliance on external consultants for the past years resulted, in one case, in the absence of internal structural datasets available.*



- The reasons for insufficient staffing are related to the availability of funds. Financial resources are often too small to maintain a bigger administrative machine; ad-hoc projects are usually supported by international organisations (e.g., EU or World Bank).
- Most ORs and OCTs suffer from their dimension and remoteness too. The small scale of many of these overseas entities makes it difficult to attract people. Even when students from those entities go abroad to follow higher education courses, they tend to remain abroad to pursue professional opportunities in more favourable labour markets.
- The quality of human resources (HR) is impacted by the regular turnover of personnel, which is common to several ORs and OCTs and deprives public agencies of expertise. High turnover makes it difficult to build and maintain capacity since “people come and go”.
- Civil servants move across agencies with very different mandates within the same OR or OCT, as well as from local to national agencies in some ORs. Such loss of knowledge hinders any uptake of (complex) innovative ideas such as the ESs.

7. Political coordination

Another organisational dysfunction that emerged from our interviews has to do with weak coordination, both along a horizontal and a vertical dimension.

We have grouped the major points under these two dimensions.

7.1. Horizontal coordination

- At the horizontal level, strategic documents define the planning of interrelated policy areas (e.g., energy, transport and infrastructures) in a very fragmented way. Even areas that are intertwined – such as environment and fisheries – are often dealt with separately.

***EXAMPLES.** In one case we investigated, marine services do not fall in the competence of the environmental department (that focuses more on terrestrial services) but are managed by the department responsible for fisheries.*

- Fragmentation also affects projects that are executed with little coordination within the same (regional) authority competent for the environment.
- In these fragmented contexts, a major flaw is the absence of any guidance higher in the organisational hierarchy that would promote (in a top-down way) and monitor the adoption of the ES methodology. This weakness was stressed for both ORs and OCTs.

7.2. Vertical coordination

- The vertical dimension of coordination has to do with intergovernmental relations between the central and subnational level in ORs, and the subnational/local implementation of national priorities.



- In ORs that – with varying degrees of autonomy – respond to national authorities, the control of the central government might be too weak to guide policy developments at the subnational level.
- The bodies representing the central government and its ministries at regional level (in ORs), often have little competence; such competence is limited to a role of enforcement of laws and regulations.
- In the framework of a general transfer of powers from central governments to regions located remotely, it is, then, difficult – or politically inopportune – for central agencies to try to promote new concepts and ideas (such as ESs) and introduce them in the public debate around environmental and marine affairs.
- Even when the central government tries to exert some pressure on the regional level, implementation in ORs can simply not happen. Implementation of directions from the central government can meet subnational opposition due to a lack of (local) political will and inadequate resources, understood as both public funding and local capacity (see the previous section).
- Finally, the same national and subnational legal framework might lack coherence despite coordination efforts between the two levels of governance.

8. Scientific advice

The science-policy interface varies a lot across the overseas entities we have investigated, which hinders the adoption of ESs in public decisions.

We report here the major differences we have experienced across the places where we conducted our research.

- In some overseas entities, there is no scientific input into decision-making. Policy-makers take public decisions quite rapidly, based on poor evidence and information/data of bad quality. On the other side, most scientists lack good knowledge of the decision-making process: which decisions are taken, when and how.
- In other entities, science and policy interact on a rather informal basis, but there is no formal science advice mechanism. Such interaction can occur through ad-hoc studies conducted by research centres and universities and commissioned by public authorities. The top management of these public agencies might eventually use the results of these studies and bring them to the attention of policy-makers.
- Science advice is not only delivered through academic research but also via NGOs' activities and consultants' expertise.
- In general, international NGOs (INGOs) (e.g., IUCN and WWF) involved in environmental matters are a good channel of science advice due to their connection with international epistemic communities. However, this does not apply to all overseas territories that took part in our research.

EXAMPLES. *In one of the territories where we conducted our interviews, we could find elements of a general distrust for INGOs; they are perceived as external actors, unaware of the local complexity and almost as a threat. This was explained by our interview on the basis of a strong sense of ownership and appropriation of the local population with regard to their territory where local decision-makers and local*

associations want to keep complete control of the environmental policy (and priorities).

- When overseas entities are part of a MS of the EU, as in the case of ORs, institutionalised science advice mechanism (at least for the environment) tend to exist at the national level even when it is weak in the region.
- In more institutionalised contexts, any policy decision that has an impact on the environment is passed through an advisory committee; this committee can include politicians, industry representatives (from agriculture, fisheries and tourism), scientific advisors and NGOs.
- Where science advice is more institutionalised, public decisions tend to be based on sound evidence. In these cases, the small scale typical of ORs and OCTs has an important benefit: the scientific evidence presented to decision-makers is not watered down through multiple layers of bureaucracy.
- The varying degree of science advice to decision-making through which ESs could be channelled can be further weakened by political instability. The turnover that characterises many HR policies in the ORs and OCTs also concerns governmental and ministerial positions for their very political nature. At each electoral round, changes of functions and positions follow. Then, the whole process of information to decision-makers about ESs has to start all over again to try to build new support from the people in key positions.

9. Clashes with vested interests

The paradigmatic shift represented by the uptake and use of ESs faces not only technical and organisational challenges; it also has important socio-political implications that might slow down the uptake of ESs in public decision-making.

Here are the most important socio-political obstacles we identified during our interviews.

- In any overseas entity, public policies have been developed and implemented in a context populated by an array of existing interests (e.g., agriculture, forest production and mining industry). This has often happened in the absence of any information and quantification of the services provided by ecosystems. Public policies would be quite different if they had to be based on ESs.
- The policy change that would be implied by the application of ESs is very likely to generate clashes with vested interests willing to keep current favourable policy arrangements.
- The inclusion of ESs in public decision-making 'is always a political decision at the end'; this political decision could bother existing interests in the territory.
- In this context, the pursuit of the objective of biodiversity conservation can become politically sensitive for many elected officials. The issue of conservation (and ESs) might even be perceived in the eye of the electorate as a form of *appropriation* of the territory by a small group of scientists.



MAPPING AND ASSESSING THE STATE OF ECOSYSTEMS AND THEIR SERVICES IN THE OUTERMOST REGIONS AND OVERSEAS COUNTRIES AND TERRITORIES: ESTABLISHING LINKS AND POOLING RESOURCES

PART IV – Possible paths of improvement

10. Policy recommendations

Based on the results of our interviews, this section develops indications on five areas of improvement for the uptake of ESs in decision-making:

- Legislative reforms
- Science advice
- Science communication
- Public engagement
- Organisational capacity

10.1. Promoting legislative reforms

Many of the entities that we have investigated have shown a clear gap in the incorporation of ESs in their legislative frameworks. This is certainly the case for OCTs, whose national laws are adopted in full autonomy from the MS to which they are historically and constitutionally linked. This can happen also for regional legislative frameworks in ORs even when the concept of ESs has entered national legal and strategic documents (as in France and Spain). One explanation of this gap is timing: old legislative frameworks predate the concept of ESs. In the case of temporal asynchrony between the emergence of the concept and the institutional frameworks, legislative revision is needed.

The EU could promote such revisions in its MSs by including the uptake of ESs in binding instruments directed to MSs (e.g., environmental directives). However, EU policies are only directly applicable in ORs and not in OCTs (Benzaken & Renard 2011).

The process of amendment of existing national laws offers the right moment to channel ESs into new national legal frameworks. Such inclusion can only happen if scientists promptly advise (national and regional)



policy-making during the process of policy reform, which leads us to the next point.

10.2. Aligning science advice with socio-political priorities

The availability of robust information on the mapping of ecosystem and ESs will be pivotal for promoting change in public policies and the uptake of ESs in new legislative and regulatory texts. However, scientific evidence is not always clearly communicated to policy-makers even when it is available. Science advice needs to focus on public issues on which policy-makers are called to act. In other words, research (and research questions) on ESs needs to address political and policy priorities; otherwise, it would be perceived as an abstract scientific effort remote from the practical problems decision-makers often struggle to solve.

10.3. Targeting science communication to decision-makers

In addition to their role of advice to decision-making, scientists also need to inform and educate decision-makers to increase their awareness about environmental problems. During our interviews, we have not found data suggesting strong political opposition or bad will vis-à-vis the uptake of ESs by policy-makers; interviewees have rather reported about the lack of knowledge and understanding of ESs among politicians and decision-makers. As a general trend, the relevance of the environment has climbed up in the political agenda in the last couple of decades; governmental priorities have changed in favour of more attention to biodiversity. In particular, in the last few years, policy-makers have been made even more aware of environmental problems by current planetary threats such as climate change. Therefore, they are inclined to adopt innovative concepts of environmental management such as ESs. This favourable inclination needs to be nurtured through more and better science communication targeting decision-makers.

10.4. Enhancing public engagement

Scientific information on ESs should not only be disseminated to public officials and decision-makers. Science should be more often communicated to the general public, too, in the framework of a broader public engagement effort. This will allow citizens to familiarise with new environmental management concepts such as ESs and, eventually, build social support for this innovative approach to decision-making. The informed public could also represent an important channel for the uptake of ESs in public policies by exerting pressure on politicians and elected officials via its electoral support. Politicians and elected officials are interested in promoting public decisions and actions that have a positive return in the next elections; an electorate that is aware and favourable about ESs would more easily vote for people with similar sensitivity.

10.5. Strengthening organisational capacity

The importance of local capacity and the lack of it has been signalled during some interviews. In order to build local capacity, two points have been raised at different moments during our investigation and by different interviewees: training and procedures.

First, training on ESs should be made available for those working in the public departments that deal with the environmental impacts of human activities. In addition, education programmes should be developed for high schools and universities to ensure that knowledge is diffused to the local community. This will allow building local capacity that can sustain itself across time even if contingent political support for ESs disappears due to electoral turnover.

Second, the development and adoption of corporate guidelines that formalise a precise workflow around the mapping and assessment of ecosystems and their services within competent public agencies were considered important. This type of documents would be crucial for the systematic uptake of ESs in the activities of national and regional agencies even when ESs are not institutionalised by inclusion in legal or political documents.



6. Conclusions

Ecosystem services are crucial for our economies and societies. Unfortunately, the concept has not yet been fully integrated into public decisions and policy practices beyond the international arena and the policy discourse. The uptake and application of ESs still lag behind in many national and subnational systems across the EU. Particularly remote areas and overseas entities such as its ORs and OCTs face several obstacles in the policy use of ESs. This report has highlighted the major cognitive, organisational and political difficulties and indicated some possible solutions. Although ESs have not yet become common practice in most of the geographical areas we investigated, spaces for improvements are available and need to be the focus of a sound strategy of intervention at multiple levels of governance.

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