Chapter 26
Do Our Ocean Policies Make Any Difference in the Wellbeing of Coastal Communities?

Yves Henocque

Abstract Like many other countries, France and Japan now have their own ocean policy, though at different stage of development and in quite different context. On the European side, buzz words like 'Blue Growth', 'Maritime Spatial Planning', and others, are on the forefront and could make us feel that ocean policies are primarily focused beyond the coast, in offshore waters and their corresponding human activities, somewhat leaving coastal communities in the back seat. Through case studies, we will try to show that ocean policies should be coast-to-coast, across oceans, regional seas, or local well delineated water body, never forgetting that, beyond 'Blue growth', we should be heading towards a 'Blue society'.

Keywords Ocean policies · Ecosystemix approach · Blue growth · Blue society · Coastal communities

26.1 Ocean Policies Are Integrated, Ecosystem-Based and Co-implemented

Since coastal areas were first included in public policy, the number of concepts has multiplied; in the era of globalization, where the sea provides for all possible interconnections: human and non-human, universal and political, natural history interlinked with social histories, ebb and flow, ecology and economy, from sovereignty to world governance, sanctuary and network, enjoyment to catastrophe, etc. Oceans and coastal areas are hotspots of global phenomena and their consequences (climate change, bioinvasion, waste, pollution, piracy, migration, etc.). The answers to these problems are applied locally, but must be reflected on globally,

The original version of this chapter was revised: A high-quality image of Figure 26.2 has been replaced. The correction to this chapter is available at https://doi.org/10.1007/978-3-030-00138-4_33

Y. Henocque (✉)
Ifremer/JAMSTEC, Yokosuka, Japan
e-mail: yves.henocque@ifremer.fr

T. Komatsu et al. (eds.), *Oceanography Challenges to Future Earth*,
https://doi.org/10.1007/978-3-030-00138-4_26

thus requiring shared governance. This presupposes the coordination of state, interstate and supra-state actors, as well as cooperation with different actors in civil society. The growing awareness of the global issues, and the role of the seas and shorelines, is rather recent and for the first time was high on the agenda of the Rio + 20 summit.

In the Rio + 20 outcome document, *The Future We Want* (which could have been called *The Ocean We Want*), oceans and their role in planetary survival and human wellbeing receive a central attention. Paragraph 158 of the Rio + 20 outcome documents highlights the importance of integrated, ecosystem-based ocean governance:

> We recognize that oceans, seas and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical to sustaining it and that international law, as reflected in United Nations Convention on the Law of the Sea (UNCLOS), provides the legal framework for the conservation and the sustainable use of the oceans and their resources. We stress the importance of the conservation and sustainable use of the oceans and seas and of their resources for sustainable development, including through the contributions to poverty eradication, sustained economic growth, food security, creation of sustainable livelihoods and decent work, while at the same time protecting biodiversity and the marine environment and addressing the impacts of climate change. We therefore commit to protect, and restore, the health, productivity and resilience of oceans and marine ecosystems, and to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations, and to effectively apply an ecosystem approach and the precautionary approach in the management, in accordance with international law, of activities impacting on the marine environment, to deliver on all three dimensions of sustainable development.

26.2 National Integrated Ocean Policies and Regional Sea Strategies

The principles and objectives as stated above underpin the national ocean policieslike there are now in many countries that have, or are taking concrete steps toward, cross-cutting and integrated national ocean policies (Cicin Sain et al. 2016).

In Japan, the "Bill for the Basic Ocean Law" took effect in July 2007. The contents of this new Law "define the basic principles of Japan on the ocean, clarify responsibilities of the national government, local governments, business operators, and citizens, specify the basic items concerning measures on the ocean, and stipulate the establishment of the Headquarters for Comprehensive Ocean Policy for the purpose of promoting these measures in a comprehensive and systematic manner, aiming at realizing a new ocean-oriented nation" (Kuribayashi 2008). As the basis of the Basic Ocean Plan, 12 basic measures have already been agreed upon. They include the promotion of development and conservation of the marine environment within the EEZ and other areas, securing the safety and security of the oceans including maritime transport, promotion of ocean science and technology, ocean industries and their international competitiveness, integrated coastal management and enhancement of citizen's understanding of the oceans, conservation of remote islands, and international cooperation.

Five years later (2013) and with the Great East japan Earthquake disaster in between, the Basic Plan on Ocean Policy was reviewed amid, among others, the ongoing national debate on future energies including marine renewable energies, exploration and future exploitation of deep sea mineral resources, and maritime safety and security. The new Basic Plan on Ocean Policy cites four targets for the stance on future efforts and the direction to be pursued: (1) contributing to international cooperation and the global community; (2) gaining wealth and prosperity by developing and utilizing the oceans; (3) changing from "a country protected by the sea" to "a country that protects the sea", and, 4) challenging unexplored frontiers (Yamamoto 2014).

In France, the recent national move (2009) for the management of the coast and ocean has been largely influenced by the new European Integrated Maritime Policy and its Marine Strategy Framework Directive (2008). It was initiated within the framework of the "Grenelle Environment" and then "Grenelle of the Sea" national consultations ending up with the publication of a Maritime Policy Blue Book giving the outlines of the national maritime strategy related to knowledge enhancement, governance arrangement, maritime activities development, education and training, and international commitments in metropolitan France and its overseas territories.

A first Basic Act (LoiGrenelle 1) enacted in 2009 was complemented in 2010 by a second more detailed one (LoiGrenelle 2) setting out the institutions and governance mechanism for implementation of the national maritime strategy. Although France does not yet have a full-fledged ocean policy as in the case of Japan, it started to actively create the conditions of its future development, more particularly through the national application of the EU Marine Strategy Framework Directive. From the Channel to the Mediterranean, consultative multi-stakeholders councils have been set up for each of the four 'ecoregions' designated within the Exclusive Economic Zone (EEZ). These consultative bodies are in charge of developing a coastal and ocean strategy and implementation plan for each of the four ecoregions. The ongoing development of 'programme of measures' to attain the 'Good Environmental Status' of the Directive, will represent the environmental pillar of each regional strategy.

In these respective national contexts, both countries have numerous ongoing local ICM-related initiatives, including Marine Protected Areas (MPAs), taking place in specific regional and local context. The question is therefore how to progressively build up from national to local and vice versa an adequate, viable and well supported governance and management process that can help each nation to consolidate their national framework hence promoting their ocean-state position in their respective maritime region and in the international arena.

Looking at both national maritime policies (though a formalized French maritime strategy has still to be drafted and enacted), respective goals and objectives look somewhat similar (Table 26.1) except the specifics of the French overseas territories, which are quite strategic since their EEZ represents around 97% of the French entire EEZ.

Table 26.1 National maritime policies France/Japan

France (Blue book on ocean policy)	Japan (Basic plan on ocean policy)
Invest into the Future 1. Generate the people's passion for the sea 2. Improved knowledge for improved management 3. Maritime education and professional training 4. Protect the coastal and marine environment 5. Develop coastal and ocean monitoring	Enhance the Knowledge of the Sea 1. Promotion of marine surveys 2. Promotion of marine science and technology R&D 3. Enhance citizens' understanding of the sea and foster human resources
Develop a maritime sustainable economy 1. Natural resources sustainable development 2. Sustainable fisheries and aquaculture development 3. Innovating and competitive shipbuilding industry 4. Rethink maritime transport 5. Develop ports international dimension 6. Strategy for leisure boats and aquatic sports development	Harmonize sea development and environmental protection 1. Promote development and use of marine resources 2. Preserve marine and coastal environment Sound development of maritime industries 1. Secure maritime transport 2. Promote maritime industries & strengthen international competitiveness
Promote maritime France in Europe and the world 1. France and international governance development 2. France and EU integrated maritime policy building up 3. Maintain sovereignty and fulfil responsibilities 4. Strengthen France's intervention capacity for defence and security	International partnership with regard to the sea 1. Secure international coordination and promote international cooperation
Set up a renewed governance 1. Coastal and ocean governance setting and policy instruments development 2. Foster the state operative capacity at sea 3. Foster operative efficiency at international level	Comprehensive governance of the sea 1. Promote development in EEZ and continental shelves 2. Comprehensive management of the coastal zones 3. Preserve the islands. Secure safety and security at sea 1. Secure safety and security at sea
Promote the French overseas territories' maritime dimension 1. Territorial governments, developers of the national policy 2. Marine environment: an asset as well as responsibilities 3. Marine resources as one of the key economic sectors	

26.3 The Millennium Ecosystem Assessment: A Common Inheritance

The 2005 Millennium Ecosystem Assessment (MEA) emphasises that 60% of ecosystem services are deteriorating. Among these, the renewal of fishery stocks and the production of freshwater seem to be the most threatened. This erosion has been more substantial during the last fifty years than in all of human history, and it will be even more substantial in the next fifty years hence the label of 'anthropocene' era.

Based on its assessments, the MEA has developed a table showing the dangers expected over the next hundred years in the form of four scenarios constructed using both the pooled opinions of experts on the "possible futures" of ecosystems, ecological services and human well-being, and global models which include the principal forces for change that impact ecosystem services, i.e. mainly habitat change (changes in land use, physical alteration of rivers or extraction of water from rivers); over-exploitation; invasive species; pollution; climate change.

Among these scenarios, one is very close to the current 'globalization' process, which envisages an increase in the liberalisation of trade, as well as stronger global interconnections and the emergence of a world governance (UN organisations). The approach to the management of environmental crises is still a reactive one. This scenario leads to the strongest economic growth and the weakest population growth, with an increase in environmental risks to human populations.

Its most wishable alternative would be the 'Adapting Mosaic', which refers to a vision of the world in which governance moves not towards the global but towards the local level. A great diversity of local styles of ecosystem management will then co-exist. Out of these local experiences networks are formed to improve the overall ecosystem management. However, there is no global-level governance. Economic growth is relatively weak at the beginning but increases after some time. Population growth is substantial.

Since the actual outcome will not be one but probably a combination of scenarios, the 'Adapting Mosaic' approach will need be supported by an ecological engineering approach and the integration of ecosystem services into the commercial sphere, in an approach that uses revolutionary technological change to reduce the use of physical resources and reach optimal management of ecological functions. It is the concept that underpins the EU "green/blue growth" policy which, at local level, is touching upon the matching of traditional ecological knowledge with scientific knowledge and new technologies, very much in the sense of the Japanese 'satoumi' concept that combines the use of ecological engineering with traditional coastal habitats and resources co-management (Fig. 26.1).

Such is the commonly accepted framework putting forward the importance of an integrated ecosystem- based management approach in managing biodiversity and ecosystem services, recognising the mosaic composition of ecosystem types and their inherent inter-linkages while pointing out the need for networking "unconnected and piecemeal" initiatives and setting up new forms of governance allowing

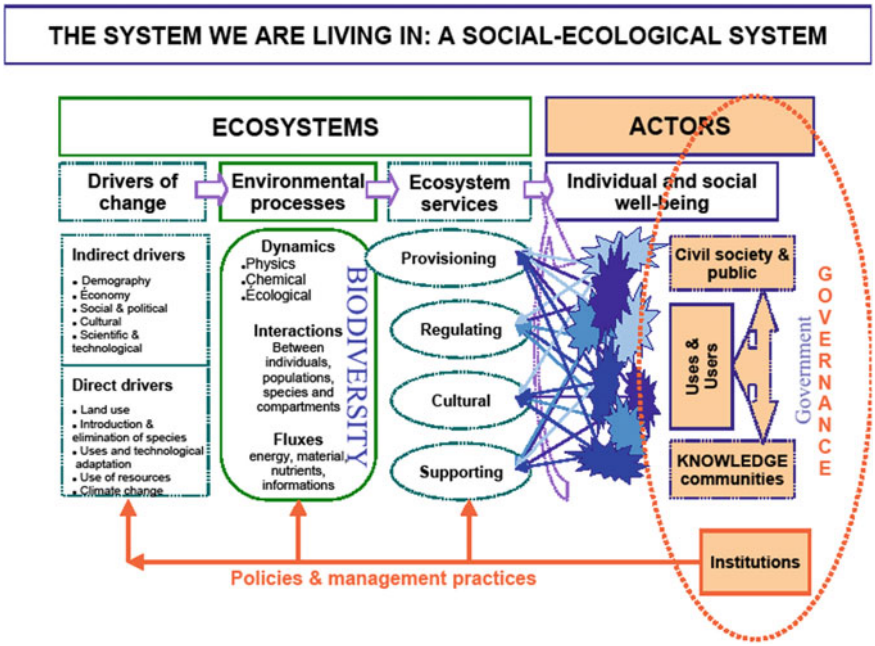

Fig. 26.1 A representation of the social-ecological system after the MEA model

the decentralised management of the "commons", which is particularly true for the marine areas. As regards drivers of change, the 11 March 2011 Great East Japan earthquake and tsunami correspond to an abrupt and "giant composite disaster" (Mimura et al. 2011) which led to the entire destruction of centuries-built social-ecological systems and their ecosystem services along the coast of Tohoku. More than never, reconstruction should take into consideration this fragile equilibrium between man and nature.

26.4 Respective Landscape and Seascape Cultural Values

Satoyama in Japan refers to a mosaic of ecosystems including wetlands, grasslands, woodlands, farmlands, paddy fields, and settlements. The interaction of humans with nature has led to the emergence of these ecosystems that provide significant habitats for a great variety of wild animals and plants. Thus, the interaction of humans with the satoyama social-ecological systems has played a vital role in biodiversity conservation, socio-economic progress, and the emergence of traditional knowledge on different components of these ecosystems.

When the newspaper *Asahi Shimbun* conducted a large public survey in 2008 (Iwata et al. 2011), the main conclusion was that among the nominated sites it was

the Forest Type (areas covered by at least 90% forest) which came first with keywords such as 'nature', 'landscape beauty', or 'traditional lifestyle of local people'. The frequent use of 'genuine' or 'pristine' indicates that this type is regarded as being the ideal Japanese rural landscape by many people.

Next was the Mixed type (60% forest, 20% paddy field, 10% other fields) regarded as the place to conduct Satoyama, and the Paddy Field Type regarded as 'home village' (*Furusato*) indicating the strong emotional attachment to paddy field landscapes. The Coastal Type was generally ignored except by specialised organisations like Japan Fishery Associations, the National Institute for Islands, or NGOs like Marine Blue 21, the chosen sites being concentrated around the Seto Inland Sea and on the west coast of the Kyushu region where large inner bays are numerous.

In France, a Burgundy landscape with its vineyards in the foreground, the result of centuries of human interaction with vineyards and their "terroir", may be considered as a kind of Satoyama cultural landscape. Closer to the sea, marshlands and lagoons are characterized by centuries-old activities on the watershed, in the water body and along its shore at the interface between land and sea. Like in Japan, we traditionally have a continuum linking satoyama and satoumi practices.

26.5 NPOs, NGOs, and the Predominance of Coastal Fisheries in Japan

At this stage, a point about civil society and interest groups composition and activities should be made: although two countries like France and Japan function generally speaking on different types of governance though interest groups and the civil society in general present some similarities in their relation with the bureaucracy which remains central in structuring the political relationships of civil society organizations.

The difference is certainly that in Japan the type of group most emblematic of "civil society", business organisations have much greater resources and access to policy making. There is a well-known high level of communication and interaction (and the making process of the Ocean Basic Law and Ocean Basic Action Plan is a good illustration of it) between business organisations and the economic bureaucracy and policy-makers. In short, a "think tank" organisation like the Ocean Policy Research Institute (OPRI), its lobbying capacity based on research and networking activities, does not exist in France, at least specifically for the sea.[1] Interestingly, the French Maritime Cluster[2] is a federation of maritime industries which tend to play this role though it is specifically devoted to the private sector.

[1]The French think tank IDDRI (International Relations and Sustainable Development Institute) could sustain the comparison though it is devoted to all topics related to sustainable development including ocean.

[2]http://www.cluster-maritime.fr.

Soon after the March 11 devastating earthquake and tsunami, one could read the following editorial title in a regional newspaper[3]: "Japan earthquake underscores importance of social capital". It was said that "the conduct of the Japanese people after the most devastating disaster of the century showed the country's indestructible social capital". As a matter of fact, if considering one of the typical indicator of structural social capital, there has been a growing density of association (NPOs and NGOs) since the 50's in Japan, and this increase is considered to be a response to emerging social demands and problems; the recognition of the limitations of public and private-sector enterprises; and an increase in government subcontracts (Inoguchi 2002).

As stated in the Japan *Satoyama Satoumi* Assessment (2010), the origins of the latter (*satoumi*) "can be traced to the attempts of local communities to understand the relationship between human beings and the sea in the coastal areas of the Seto Inland Sea", hence very much dealing with the available social capital since these initiatives, though recently encouraged by governmental programmes, are much dependent on "citizens, non-profit organisations (NPOs), and non-governmental organisations (NGOs)".

Then, in most of the cases, the *satoumi* initiatives are related if not led by members of the Fishery Cooperative Association (FCA) and Fishery Management Organization (FMO), the functions of which facilitate the co-management regimes through the fishing rights "in response to declining harvest volume that threatened fishermen's economic well-being" (Uchida and Wilen 2004).

The strong sense of environmental ownership developed by the fishermen thanks to their fishing rights has also been instrumental in national programmes like the Fisheries Agency's "Promoting the multifunctionality of fishing community and fisheries", mainly focused on marine ecological engineering to restore nursery habitats (e.g. seagrass beds) and strengthened the productivity of locally important species.

In Japan, fisheries organisations and their networks at provincial and regional levels make them an important component of social capital for the benefit of *satoumi* initiatives provided they open up to the other coastal and maritime activities and their various private sector organisations including the NPOs.

In short, though *satoumi*is conceptually linked to the centuries-old *satoyama*in a very specific cultural context, it may be usefully compared to the adaptive co-management approach that has been developed in many places around the world while it is particularly focused on "enhancing biological productivity and biodiversity through human intervention" (Japan *Satoyama—Satoumi* Assessment 2010).

In France, after the French revolution abolishment of guilds and religious societies, there has been a new surge in associational life from the first half of the nineteenth century. It was most especially manifested in mutual aid societies, created to provide self-help insurance against the costs of sickness, accidents, old

[3]Want China Times. Editorial of 28 March 2011.

age, and burial. At the same time, cooperative organizations also began to spring up among both producers and consumers with two more and more entrenched camps: the state and the civil society organisations. More recently, a number of small associations devoted to the coastal areas and ocean sustainable development (e.g. LittOcean[4]) have started to develop their own strategy and activities in regard to public awareness, capacity building and expertise services.

In both cases, whatever each country respective context, civil society organisations should not be regarded as powerless or insignificant in politics and policy-making. As for any other group, they still have to come up as well-structured networks of local NPOs/NGOs in a same region in order that they can also counterbalance well organized international NGOs and their country representatives which tend to have a standardized approach, not always adapted to local cultures and needs.

Fishing communities, local stakeholders and authorities, both in Japan and in France, know very well what is and will be at stake tomorrow: the ecosystem health and its capacity to keep on providing the needed goods and services. Therefore, a lot of local initiatives, including marine protected areas or the like, have been developing in the last 20 years, but with great difficulties in interrelating them to pass at the next bigger scale, i.e. Department, Prefecture, and/or Region level.

26.6 Looking at Common Issues

26.6.1 Local Governments' and Stakeholders' Involvement

Beyond local initiatives, in regard to the implementation of a national ocean policy, what is the appropriate governance and planning system that may link the land and the sea, allowing local authorities to get into the process and to develop a sense of ownership?

Any ocean policy implementation requires local action ('Think global, act local'). Local government involvement is therefore essential to the successful implementation of the various economic development and environmental management policies and action plans forwarded by central government. This is practised through different arrangements in France like in Japan, but the question is totally new when it comes to the management of the marine and maritime area.

Generally speaking, there is an increasing shift in management responsibilities to local governments or coastal communities through specific institutional arrangement. In many of the known models, community sustainability issues often relate to traditional resource usage as a key management issue while overall socio-economic considerations have usually been a weak component of many of these coastal management models.

[4]http://www.littocean.fr.

At present, economic viability is the most pressing concern in sustaining coastal communities, particularly those linked to fisheries and any other kind of coastal and sea-related livelihood. Their sustainable development should therefore constitute an important component of any regional and national integrated maritime policy. To achieve this, any local initiative must be, among others, related to community development, regional/provincial land use and maritime spatial planning, as well as sector planning at the national and regional level.

26.6.2 Current State in France

In France, local authorities are increasingly creating their own institutional arrangement for allowing a cross-sectoral dialogue but they are doing so in a rather disorderly manner, without much consultation between them. One of the best example is the Sea Forum created by the Brittany Region under its Coastal Areas of Brittany Charter where the State is co-chairing the Forum. In other coastal regions, various kind of governance arrangement is gradually building up as well.

At a larger scale, the new national maritime policy legal framework has set a new consultative body at national level: the Coast and Sea National Board which, under the chairmanship of the Prime Minister, gathers representatives from the local governments (elected officials), private sector (all maritime activities) and the civil society (NGOs). The regional ramification of this national body is ensured through the setting up of inter-regions Coast and Sea Maritime Councils chaired by the State (Prefect of Region/Maritime prefect) in charge of preparing the corresponding interregional strategic plan. The latter will be articulated with the region (Sea and Coast regional strategy) and then with the local implementation arrangements between municipalities and departments.

Currently, the operational framework is given by the EU Maritime Strategy Framework Directive (MSFD), the environmental 'pillar' of the EU integrated maritime strategy toward the 'Good environmental status' or "*the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive" (MSFD, Article 3).* It is within the boundaries of pre-defined 'ecoregions' (Fig. 26.2) that the 11 descriptors of the 'Good Environmental Status' have to be stated and corrected when needed.

26.6.3 Current State in Japan

In Japan, there have been a series of almost simultaneous amendments of the River Act (1997), the Coast Act (1999), the Harbour Act (2000), and the Fishery Port Act (2001) towards the inclusion of environmental conservation. In 2000, these amendments were completed by the National Land Agency with the "Guidelines for Integrated Coastal Management Plan" addressed to Prefectures and Municipalities (Fig. 26.3).

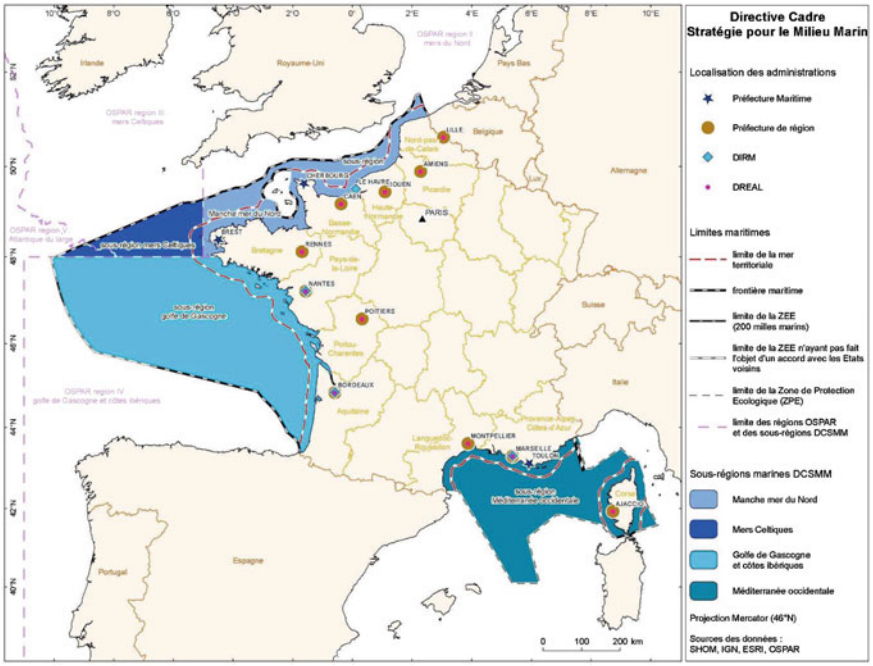

Fig. 26.2 MSFD marine eco-regions and interregional strategic plan boundaries within France EEZ

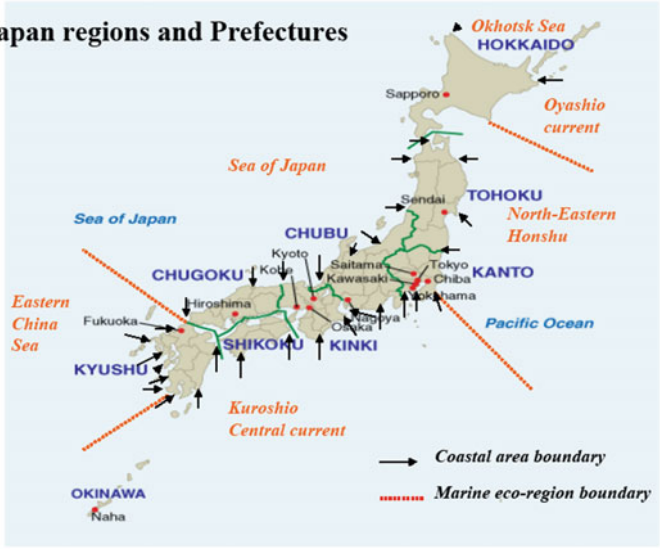

Fig. 26.3 Japan pre-defined 48 coastal areas and marine eco-regions (Spalding et al. 2007)

The main principles put forward by these guidelines were: (i) Participation and cooperation, concerning stakeholder groups such as the central and local governments (Prefecture and Municipalities), private sector, Non-Profit Organizations (NPO), fishermen and local communities; (ii) Wide overview, giving full consideration to entire bays, inland seas and river estuaries; (iii) Long-term view, setting a future vision of coastal areas following natural cycles analysis; (iv) Continuous implementation, based on the results of regular monitoring and evaluation.

- An Integrated Coastal Zone Management Commission was planned as well at the level of each coastal Prefecture and/or Municipality with a representation of all stakeholder groups.
- It seems that since then, there have been only a few initiatives from local governments, most of them coming from Municipalities and almost none from Prefectures. There may be a number of reasons to explain such a situation (Ebara 2000).
- The articulation between land use and urban planning (Municipal master plan) and the coastal zone management plans is uncertain. This has taken place mainly in the Seto Inland Sea, in regard to reclamations impacts assessment and marine environment recovery, while the development of non-coordinated sectoral policies remained the rule.
- The articulation between the 48 pre-defined coastal areas (which most of them correspond to one or two prefectures boundaries) and the bigger marine eco-regions that surround Japan is currently unknown as the respective role of local and central governments.
- The new coastal zone management plan has no statutory basis contrary to other administrative plans (e.g. Municipal Master Plans; Prefecture: Coastal Management Plan mainly related to the coastline defence).
- Although some municipal governments have tried to incorporate innovative methods for promoting public participation in the planning process, the average level of participation remains limited, often reduced to the use of passive channels such as written survey.
- There are many overlapping administrative statutory plans which make the integration process quite difficult to achieve and to enforce.
- Users other than fishers have a few legal channel to sue engineering projects like reclamation since most of them are considered of “public interest” (Kobutsu) and therefore entirely depend on the Governor’s or administration’s decision.

26.7 Conclusion

In both countries, there is a gap between top-down driven national ocean policies and bottom-up driven local coastal management initiatives, the meeting point of which could be at regional (France) and Prefecture (Japan) level. In France, an interesting exception is the region of Brittany which, a few years ago, set up a

regional integrated coastal management strategy promoting and coordinating fourteen local initiatives representing a continuum along the whole coastline of Brittany.

Whatever the context, we need a 'nested governance system' or to consider a 'polycentric approach', i.e. mechanisms that build coherence of purpose and synergy of action at the varied scales from municipal to national layers of government. The dynamic interplay among local, regional and national levels is a common thread in both countries that need to be articulated on coastal and ocean matters.

In Europe, the situation is now changing in the frame of the EU Integrated Maritime Policy and new Directives like the Marine Strategy Framework Directive. Depending on countries, stocktaking analysis and demonstration programmes regarding their coast and marine waters led the way to legal and institutional arrangements where an interdepartmental committee may be replaced by an interdepartmental unit, and eventually an independent unit with overall responsibility for coastal and ocean management.

Emerging principles and practices of participation and subsidiarity both support the idea that decision making should be taken as near to the local level as possible, but a broader framework needs to be in place to ensure adequate perspective and coherence between different local initiatives, and to provide appropriate technical and financial support to make them sustainable.

The Region or other administrative level (e.g. Prefecture, in Japan) associated with strategic planning may hold the key to resolving the problem of territorial and sectoral integration in a manner which both reflects national and international policies and is adapted to local conditions. This is not necessarily the level at which detailed action planning and management should take place since they are essentially local tasks, but the Region (France)or the Prefecture (Japan) is potentially a critical enabling level in terms of ICM initiatives coherence in between the local and national level.

The whole process will be facilitated at national level by ensuring that policies relating to the coast and ocean are compatible, providing a national focal point for regional and local initiatives, and facilitating integrated approaches to coastal and ocean management.

References

Cicin Sain B, Vanderzwaag DL, Balgos MC (2016) Routlege Handbook of National and Regional Ocean Policies. Routledge Ed. 640 pp

Ebara A (2000) Coastal management system and ecological preservation in Japan. In: Proceedings of the international symposium on protection and management of coastal marine ecosystems, Bangkok, Thailand, 12–13 December 2000

Inoguchi T (2002) Broadening the basis of social capital in Japan. In: Putnam RD (ed) Democracies in flux: the evolution of social capital in contemporary society. Oxford University Press, New York

Iwata Y, Fukamachi K, Morimoto Y (2011) Public perception of the cultural value of Satoyama landscape types in Japan. Landscape Ecol Eng 7:173–184
Kuribayashi T (2008) Thinking about the basic ocean law: enactment of the Basic Ocean Law and its significance. Ship and Ocean Newsletter No. 10, September 2008
Mimura N, Yasuhara K, Kawagoe S, Yokoki H, Kazawa S (2011) Damage from the great East Japan earthquake and tsunami. A quick report. Mitig Adapt Strateg Glob Change 16:803–818
Spalding MD et al (2007) Marine ecoregions of the world: a bioregionalization of coastal and shelf areas. Bioscience 57(7)
Uchida H, Wilen JE (2004) Japanese coastal fisheries management and institutional designs: a descriptive analysis. In: IIFET 2004 Japan proceedings
Yamamoto I (2014) On the new revision of the basic plan on ocean policy. Ocean Newsletter No. 18. Ocean Policy Research Foundation