

# Integrated Coastal Management plans

Critical review and recommendations for  
Pacific Island countries and territories

Julien Rochette and James Comley

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Secretariat of the Pacific Community, Noumea, New Caledonia

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### **The INTEGRÉ project: Pacific Territories Initiative for Regional Management of the Environment**

INTEGRÉ is an EU-financed (12 million euro) regional project being implemented by the Secretariat of the Pacific Community (SPC) in the European overseas countries and territories (OCTs) in the Pacific (New Caledonia, Wallis and Futuna, French Polynesia and Pitcairn) between 2014 and 2017. The project aims to improve environmental management, promote integrated coastal management (ICM) methods, strengthen regional cooperation in this area and foster sustainable development. ICM projects have been developed at nine pilot sites, chosen by the territories as coherent management units because they: have serious environmental issues, are used by local communities and are suitable for demonstrating integrated management activities. Analysis of INTEGRÉ's outcomes at the site level and promotion of the lessons learned and the methods applied will take place through active involvement in regional networks. INTEGRÉ will promote networking activities and exchanges with mirror sites, provide tailor-made methodological support, and create or strengthen sustainable links between OCTs and their neighbours. It will stimulate a lasting change in methods towards more sustainable development, for the benefit of the populations.

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### **The RESCCUE project: Restoration of ecosystem services and adaptation to climate change**

RESCCUE is a regional project being implemented by the Secretariat of the Pacific Community (SPC) in seven pilot sites in Fiji, French Polynesia, New Caledonia and Vanuatu over a period of five years (2014-2018). The total project budget is 13 million euros, including 6.5 million euros provided by the French Development Agency (AFD) and the French Global Environment Facility (FFEM). RESCCUE aims to contribute to increasing the resilience of Pacific Island countries and territories in the context of global changes. To this end, it supports adaptation to climate change through integrated coastal management, resorting especially to economic analysis and economic and financial mechanisms, including payments for ecosystem services, fees, green taxes, trust funds, offsets and labels. Combining tangible field activities undertaken by "operators" (consultants, associations, NGOs and research centres) and regional activities in partnership with other regional organisations, RESCCUE is a catalyst for change in the Pacific.

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## List of acronyms

BOD	Board of Directors
CAC	Coastal Advisory Committee
CEO	Chief Executive Officer
CMAC	Coastal Management Advisory Council
CZM	Coastal zone management
CZMAI	Coastal Zone Management Authority and Institute - Belize
FFEM	Fonds Français pour l'Environnement Mondial (French Global Environment Facility)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
ICAM	Integrated coastal area management
ICM	Integrated coastal management
ICZM	Integrated coastal zone management
LLCTC	Lauru Land Conference of Tribal Communities
LPAN	Lauru Protected Area Network
NGO	Non-governmental organisation
PSC	Provincial Steering Committee - Choiseul
RMI	Republic of the Marshall Islands
EPA	Environmental Protection Agency
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
UNEP	United Nations Environment Programme

# Executive summary

## Integrated coastal management

Integrated coastal management (ICM) is considered a key approach in the sustainable development of coastal areas and, despite encountering many obstacles, is now heavily influencing the way coastal areas are managed worldwide, including in the Pacific.

Definitions of ICM vary, but five dimensions of integration are usually identified (Cicin-Sain and Knecht 1998):

- Intersectoral integration (horizontal integration among coastal and marine sectors, along with integration between coastal and marine sectors and land-based sectors that affect the coastal and ocean environment).
- Intergovernmental integration (integration among different levels of government: national, provincial and local).
- Spatial integration (integration between the land and the ocean sides of the coastal zone).
- Science-management integration (integration among the disciplines important in coastal and ocean management).
- International integration (integration among nations).

## ICM plans

ICM implementation is based on a wide variety of instruments, including so-called “plans”. ICM plans can be defined as documents that:

- provide for land-use planning;
- are part of a long-term strategic vision;
- aim, including through zoning, to prevent and arbitrate in user conflicts by allocating parts of an area to specific activities or priority uses;
- may include an action plan;
- are regularly evaluated and updated; and
- are designed to contribute to implementing ICM in all or part of a country.

ICM plans can be documents labelled “ICM Plan” and developed for just such a purpose, but can also be land-use planning documents that do not specifically mention the term ICM in their titles, or can be climate-change adaptation documents designed for coastal areas. Such documents are ICM plans when they have, first and foremost, the objective of integrating sectoral policies with strategic resource management planning over an extended timeframe.



## Objectives of the report

Based on a review of the literature and five case-studies, this report aims to identify lessons learnt and best practices regarding: i) the ICM plan development process; ii) ICM plan content; and iii) the relevant governance mechanisms to be established by or around the ICM plan.

## ICM plan development process

The literature and case studies show that the choice of the agency to be tasked with developing an ICM plan depends on national and local circumstances. What is important in all instances is that the agency enjoys the legitimacy required for the task. This can be conferred by a government authority that appoints the agency.

The various stages prior to ICM plan development likewise vary depending on the institutional, legal, social and cultural context. In general, however, the basic stages include recognising that planning is needed (through an official document or an informal initiative); conducting an area assessment; highlighting the needs to be addressed by the plan; defining the area's physical boundaries and identifying priority issues to be addressed; ensuring stakeholder participation; and involving the national and local authorities concerned.

Special care must be taken when defining the ICM plan boundaries. In this regard, recommendations from the literature to go beyond administrative boundaries and define an environmentally-coherent unit must be tempered by practical considerations. If the boundaries of a government authority's jurisdiction are entirely overruled, the outcome may well be that no government agency will feel concerned or become involved, or that time and energy will be wasted coordinating several of them.

Stakeholder participation is extensively applied to ICM plans today. No single form of participation is used and several methods can be observed at the various stages of the plan development process, depending on national and local circumstances.

## ICM plan content

There is no standard or ideal set of ICM plan contents; they depend largely on the assessment conducted during the development phase, when the needs to be addressed and the resources available for implementation are identified.

It is important for the ICM plan to contain provisions specifying how it shall be implemented. This saves considerable time by making the plan immediately operational. It should identify the action to be taken, list the appropriate authorities, include a detailed timetable and specify the implementation issues that are anticipated. Without these, the plan is very likely to be promptly shelved.



## ICM plan governance

An ICM plan should be adopted, or at least recognised, by a national, regional or local government authority. This will give it official status and more legitimacy than an informal initiative. Depending on the status granted to the plan by the government authorities, it may just remain a set of recommendations (“soft law”) or could become legally-binding requirements (“hard law”). In the latter case, the plan would be “enforceable”, its implementation would be mandatory and penalties may be provided for in the event of a breach of the rules. However, whether or not an ICM plan is actually implemented as soon as it becomes legally binding depends on the arrangements made for enforcing its provisions.

The legal status of the ICM plan affects how it fits in with other national and local instruments. If the plan is an informal initiative with no official endorsement, it is governed by an agreement between the stakeholders and, as such, it neither amends nor replaces existing area-planning rules, which can continue being applied regardless of the plan.

Choosing to have an ICM plan formally endorsed or not depends on the local circumstances. Where ‘Western’ law takes precedence, it may be essential to have the plan formally endorsed, but where customary law prevails, an informal plan often has advantages in terms of flexibility and stakeholder ownership. As ICM is a dynamic, ongoing, iterative process, ICM plans must be evaluated and updated regularly.

## Conclusion

The literature and case-study review shows that ICM plans vary considerably from one context to another in terms of their development process, content and governance arrangements. There is, therefore, no standard ICM plan. Instead, ICM plans should be tailored to the context in which they have been designed. That is why it is neither advisable nor even possible to advance hard and fast recommendations on how to develop and implement them or even identify factors that will guarantee their success. However, some advice can be offered on the “dos and don’ts” at the various stages leading to ICM plans, as outlined in the table below.



## Dos and don'ts at the various stages of preparing ICM plans

	Don't	Do
<b>Plan Development Process</b>	Start the plan development process based on an incomplete view of the issues to be addressed. Ignore the successes and failures of past planning experiences.	Conduct an area assessment highlighting the needs the plan should address.
	Define the plan area boundaries based on purely environmental considerations.	Define the plan area based on both environmental considerations and administrative boundaries.
	View stakeholder participation as a mere stage in a procedure.	Ensure the stakeholders participate effectively at the various stages of the plan's development.
	Keep the plan a private initiative.	Involve the appropriate government authorities.
<b>Plan Content</b>	Adopt a short-term approach.	Extend the timeframe to define the area's medium- and long-term future. Incorporate climate-change adaptation issues into the plan.
	Greatly restrict or widen the scope of the issues the plan should address.	Adjust the plan's objectives to the needs identified during the assessment and the resources available for implementing it.
	Fail to anticipate the plan's implementation issues.	Include provisions in the plan for implementing it (actions required, relevant authorities, timetable, etc.)
<b>Plan Governance</b>	Ignore plan status issues.	Assess whether it is advisable to grant legal status to the plan or leave it as an informal initiative.
	Leave the plan to take care of itself.	Appoint one or more stakeholders specifically tasked with monitoring plan implementation.
	Think the task is over once the plan has been adopted.	Make provisions for assessing and updating the plan regularly.





# 1. Introduction

## 1.1 Integrated coastal management

Integrated coastal management (ICM)<sup>1</sup> is considered a key approach in the sustainable development of coastal areas (Hatzios et al. 1998) and is now heavily influencing the way coastal areas are managed worldwide, including in the Pacific (Jupiter et al. 2013), despite encountering many obstacles during implementation (OECD 1993; Billé 2006).

ICM, as a term, has enjoyed considerable semantic success for nearly four decades now and, predictably, is defined many different ways. The earliest definition came from an expert workshop held in Charleston, United States of America, in 1989 and states that ICM is “a dynamic process in which a coordinated strategy is developed and implemented for the allocation of environmental, socio-cultural, and institutional resources to achieve the conservation and sustainable multiple use of the coastal zone” (Sorensen 1993). During the 1990s, when ICM entered the international political arena (Cicin-Sain 1993; Billé 2004), scientific and grey literature generated another dozen or so definitions. For instance, Cicin-Sain and Knecht proposed the following definition in their seminal 1998 publication:

Integrated coastal management can be defined as a continuous and dynamic process by which decisions are made for the sustainable use, development and protection of coastal and marine areas and resources. First and foremost, the process is designed to overcome the fragmentation inherent in both the sectoral management approach and the splits in jurisdiction among levels of government and the land-water interface. This is done by ensuring that the decisions of all sectors (e.g. fisheries, oil and gas production, water quality) and all levels of government are harmonized and consistent with the coastal policies of the nation in question. A key part of ICM is the design of institutional processes to accomplish this harmonization in a politically acceptable manner.

The only supra-national and legally binding instrument devoted to ICM, the Protocol on Integrated Coastal Zone Management in the Mediterranean, adopted in 2008 (Rochette et al. 2012), defines integrated coastal zone management (ICZM) in Article 2f as “a dynamic process for the sustainable management and use of coastal zones, taking into account at the same time the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses and their impact on both the marine and land parts.”

Whatever the definition, the basic underlying principle of integrated management lies in going beyond the silo approach and making coastal system management consistent by dealing with all its components in a coordinated manner (Clark 1992; Post and Lundin 1996; Ngoile 1997). This is the very essence of the term “integration” from the Latin *integrare* meaning “to put back together” or “to make whole”. It involves “bringing together separate components as a functional whole” (FAO 1998). As such, “ICM differs from the earlier form of CZM [coastal zone management] in that it attempts a more comprehensive approach taking account of all of the sectoral activities that affect the coastal zone and its resources and dealing with economic and social issues as well as environmental/ecological concerns” (Post and Lundin 1996).

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1 ICM will be used in this report to describe the general process of coastal management, except when authors use another term (integrated coastal zone management [ICZM], integrated coastal area management [ICAM], coastal zone management [CZM], etc.).

Cicin-Sain and Knecht (1998) identify five dimensions of integration:

- Intersectoral integration (horizontal integration among coastal and marine sectors, along with integration between coastal and marine sectors and land-based sectors that affect the coastal and ocean environment).
- Intergovernmental integration (integration among different levels of government: national, provincial and local).
- Spatial integration (integration between the land and the ocean sides of the coastal zone).
- Science-management integration (integration among the disciplines important in coastal and ocean management).
- International integration (integration among nations).

## 1.2 Plans in ICM implementation

ICM implementation is based on a wide variety of documents aimed mainly at (Billé and Rochette 2015):

- (i) Adapting sectoral policies and regulating coastal activities. Integrated coastal management is no substitute for sectoral policies (Cicin-Sain and Knecht 1998), but rather aims to avoid fragmentation “by focusing on the linkages between different sectors” (Council of Europe 1999). In order to make the overall approach consistent, it is important to strengthen and adapt environmental policy to the special requirements of coastal areas and regulate the sectoral activities that affect them.
- (ii) Changing coastal area governance methods so the public can be informed and participate, plus strengthening integration mechanisms, for example.
- (iii) Engaging in coastal area strategic planning to ensure that management systems are consistent.

This report will focus mainly on the coastal area strategic planning aspect, particularly ICM plans at sub-national level. This means that sectoral policies and governance mechanisms will be addressed through the lens of strategic planning.

## 1.3 Report outline

Section 2 provides a state-of-the-art in ICM plans, based on a review of the literature and case studies focusing on i) the ICM planning process, ii) the content of ICM plans, and iii) the governance mechanisms relating to ICM plans.

As there is no precise definition of ICM plans (cf 2.1.1), the literature review will sometimes have to assume that authors’ statements regarding ICM “effort” (Sorensen 1993), “programme” (Cicin-Sain and Knecht 1998) and “initiative” (Hatzioalos et al. 1998) also apply to the plans themselves. Section 3 of this report draws conclusions from Section 2 on what ICM plans need in order to succeed.



## 2. State of the Art

### 2.1 Review of the scientific and grey literature on ICM plans

#### 2.1.1 Defining ICM plans

In 1993, Sorensen noted that ICM plans were proliferating and gave two main reasons for this. “One reason is that since one of the basic concepts of ICZM is to manage coastal systems, the ICZM planning and management boundary should reflect the boundaries of the respective coastal systems which are to be planned and managed. The second reason for the proliferation of [ICZM plans] is the proliferation of pilot or demonstration projects.”

Scientific and grey literature on the topic use various terms to describe ICM plans, including “special area management plan” (Sorensen 1993), “master plan” (Clark 1997), “integrated coastal master plan” (Brachya et al. 1994) and “area planning” (Cicin-Sain and Knecht 1998). Although it is never expressly stated, the common thread in all of these terms is the use of zoning.

Moreover, although ICM plans have been mushrooming in recent decades, they are never the main subject in the literature. ICM and ICZM plans are always dealt with in a broader context, usually as part of ICM or ICZM “programmes”. ICM plans have been described as “the final product of the basic ICZM planning activity” (Clark 1992), a “stage” of coastal management (Sorensen 1993), an “approach related to the area-based planning function” (Cicin-Sain 1993), “a tool in the sustainable development of marine and coastal areas” (Griffith and Ashe 1993), an element of an ICZM programme (Post and Lundin 1996), “a typical ICM activity” (Cicin-Sain and Knecht 1998), “the principle mechanism” for ICZM but “only one component” of ICZM (European Commission 1999b), and “the important consequence of ICZM” (Ramesh and Senthil 2011).

There is therefore no common language to refer to or define ICM plans or describe how they fit into the broader context of ICM implementation. Confusion can arise when the word “plan” is used to mean both a document about zoning and an ICM programme (Post and Lundin 1996; Cummins et al. 2004; Varghese et al. 2008), when no distinction is made between “plan” and “programme” (e.g. Chapter 17.6 of Agenda 21) or when the same procedure is suggested for an “ICZM strategy, plan or programme” (UNEP 2002).

The legal documents referring to ICM plans are no less vague. For example, the United Nations Framework Convention on Climate Change (UNFCCC) requires states to develop “integrated plans for coastal zone management” (Article 4-1e), but does not define what they are. Similarly, the protocol on ICZM in the Mediterranean requires states to formulate “coastal plans and programmes” (Article 18-3), without specifically defining what a coastal plan should contain.

For the purposes of this report, the term “ICM plan” will be used to mean a document that:

- provides for land-use planning;
- is part of a long-term strategic vision;
- aims, including through zoning, to prevent and arbitrate in user conflicts by allocating parts of an area to specific activities or priority uses;
- may also include an action plan;
- is regularly evaluated and updated; and
- is designed to contribute to implementing ICM in all or part of a country.

### 2.1.2 ICM development process

#### ***Responsibility for developing ICM plans***

The literature makes no specific recommendations on who should be responsible for developing ICM plans, but describes a wide range of existing situations. Depending on the context, such responsibility is borne by a public entity (e.g. a government department or local government authority) or an “outside operator”, such as an ICM project team. Generally, authors concur with Ramesh and Senthil (2011) that “methodology for ICZM planning is differing in relation to the regional culture, society, economics, politics, nature, technology, scientific, human behaviour, etc.”

The European Commission states that ICM plans or strategies can be the product of statutory or non-statutory initiatives. According to the commission, “Non-statutory approaches are often easier to launch and have proven a good way to broaden participation. However, they may be more difficult to maintain, particularly as initial financing sources dry up and if they are not seen to have acquired political ‘legitimacy’” (European Commission 1999b).

Hale and Robadue (2002) note that “Effective and committed leadership at both the political and practical levels is essential for a successful coastal program. Coastal programs are not sectoral, so they will never have all the autonomous authority required to achieve desired outcomes. Hence leaders who can recognize and act on opportunities, seek and obtain cooperation from key actors, and keep the program a priority for the nation, are essential for success.” The remark refers to “coastal programs”, but also applies to ICM plans.

The literature makes no specific recommendations on who should be responsible for developing ICM plans.

Depending on the circumstances, ICM plans can be the product of statutory or non-statutory initiatives.

The lead agency's legitimacy and leadership are both prerequisites for the success of the initiative.



### ***Spatial scale considerations***

The spatial scale to be used to develop an ICM programme or plan is the focus of much discussion in the literature. Authors generally agree that the scale depends mainly on local circumstances but, in keeping with the very definition of ICM, the scale should be independent of traditional administrative boundaries, which are perhaps “convenient but do not reflect geographical realities” (Péron 1998). The ICM area should encompass “a stretch of coast and adjacent ecosystems that are linked by common natural (e.g. climatic, physical, biological) features and / or by the occurrence of particular human activities” (GESAMP 1996). Similarly, Post and Lundin (1996) note that “the management zone should include all of the coastal resources of interest and all of the activities that are capable of affecting the resources and waters of the coastal zone.” This necessarily requires considering the land and sea as a whole. As Hale and Robadue (2002) state, “ICM projects and programs are concerned with both the area of the ocean affected by the land and the area of land affected by the ocean – although the boundaries of coastal programs vary widely depending on issues to be addressed and capacity of implementing institution.”

The spatial scale on which to develop an ICM plan depends primarily on local circumstances.

Spatial integration requires both land and marine environments to be considered.

Should ICM plans' spatial boundaries be based on environmental considerations or administrative boundaries?

### ***Stakeholder participation in developing ICM plans***

Most authors consider stakeholder participation to be an essential requirement in developing ICM initiatives (OECD 1993; Olsen 1993; Post and Lundin 1998; Cicin-Sain and Knecht 1998, European Commission 1999b; Cummins et al. 2004; Nordlund et al. 2013). It is also an obligation imposed by many national laws and international agreements (Principle 10 of the Rio Declaration, Chapter 17-5-f of Agenda 21, etc.)

Involving stakeholders from the earliest stages onwards is believed to facilitate the implementation of the plan or programme. The European Commission (1999) states that “through participatory planning, and a focus on common interest, good coastal zone management can reduce conflict and develop consensus. ... By developing a common perception of major problems among the various stakeholders, each key player can assess what they are prepared to ‘give up’ in order to achieve common goals in management of the coastal zone.” The need to “build constituencies ... by ... involving stakeholders in all steps of the policy process” was likewise noted by Olsen (1993).

Participation should be as broad as possible and involve all stakeholders (UNEP, 2001a), who should not only include economic players (Cicin-Sain and Knecht 1998) but also those “who place a high value on the aesthetic, touristic, and recreational value of the coastal area” (Post and Lundin 1996).

In practical terms, participation must give stakeholders “the opportunity to voice their own ideas and concerns in management decisions” (UNEP, 2001a). The resources committed to this will depend on local circumstances. For Hale and Robadue (2002), “The mechanisms by which the public is involved must be tailored to the culture and traditions of a place, but should strive to assure that key participants at both the national and local level participate in all phases of the policy process.” Ramesh and Senthil (2011) emphasise the importance of “public hearing” in the development process for “active and dynamic public participation in ICZM plan development.”



Cicin-Sain and Knecht (1998) suggest setting up a “coastal users group” that includes “representatives of all groups that believe they have a stake in the coastal and ocean zone” and which has members who “perceive that they are fully informed about the status of ICZM planning in their area, ... believe that their suggestions and input to the ICZM development process will be seriously considered and can affect (improve) the final plan ... [and] do not see themselves as merely a ‘rubber stamp’ to approve work already done by the government staff.” Many “coastal users groups” have been set up in recent years under various names, including “ICM committees”, “coastal zone management groups” (O’Hagan and Ballinger 2010) and “multi-sectoral advisory committees” (Jupiter et al. 2013).

In addition to involving such stakeholders, the literature emphasises the need to involve all the ministries affected by the future ICM plan, and as early as possible (Cicin-Sain and Knecht 1998). Hale and Robadue (2002) note that “Many ICM programs target outcomes at this [local] level, even though they may not have full jurisdiction or control over all the factors and decisions required to realize the outcomes. That is why most effective programs rely upon agreements with other agencies, and reach out to negotiate with private and non-governmental actors to bring the full array of resources to bear.”

European ICM experience also shows that “coastal zone management is not effective if it is not supported by all levels of administration, as well as by all of the relevant sectoral branches of administration concerned with the target coastal area” (European Commission, 1999a). This requires involving a broad range of government bodies at the earliest planning stages.

Involving stakeholders in ICM plans is an essential requirement.

The entire spectrum of players who hold a stake in the plan must be involved from the outset of the process. The level of involvement of individual stakeholders will however vary between locations and over time within a location.

The ministries affected by the future ICM plan must also be involved as early as possible.

### ***ICM planning period***

The literature does not provide many recommendations on the length of stakeholder involvement or ICM plan development, though many concur with Post and Lundin (1996) that “it is important that the plan formulation process be completed in a reasonably short time. The energy and momentum generated in the early stages of initiating the plan should not be lost.”

The ICM plan development time should be long enough to effectively consult and involve the stakeholders, but short enough to maintain the momentum of the process.

### 2.1.3 ICM plan content

#### *ICM timeframe*

ICM plans should extend beyond the short-term. Vallejo (1996) argues that “the need to formulate a long-term perspective or a vision of the future has been recognized as one of the priority needs in development planning.” Similarly Hale and Robadue (2002) postulate that “area planning” contributes providing “a long term vision.”

The plan must have a substantial timeframe and be part of a long-term vision for the country or sub-national area over which management is being undertaken.

#### *Issues addressed by ICM plans*

Authors agree that it is important to have realistic ambitions and refrain from attempting to solve all problems through an ICM plan. Olsen (1993) emphasises the need to focus on “a limited set of issues that are considered significant to the societies affected.”

Hale and Robadue (2002) expand on this requirement, arguing that

“no single program, even an integrated one, can solve all the problems of the coastal region. Initiatives need to maintain a strategic focus throughout the development and implementation process. Deciding which issues to address; and where and when to address them is among the most crucial decisions that a program makes. Programs can fail when they try to do too much at once, are spread too thin, or become too rigid, thus becoming a barrier to solving the problems they were created to address.”

In essence, the literature highlights the fact that the issues addressed by ICM plans depend, above all, on the particular circumstances in an area. In addition to this general precaution, authors do make a few specific suggestions.

According to Clark (1994): “A Coastal Master Plan ... provides a detailed representation of the coastal zone and an inventory of the resources, an identification of critical areas, specifying those in need of special attention and those offering potential for development. The Master Plan identifies the permissible type of uses and the standards for these uses, the procedure for permit approval processes, for monitoring of activities and enforcement of compliance. It indicates options for human progress in the coastal area - e.g., it recommends governmental and private actions to accomplish beneficial and sustainable change; i.e., change that is economically sound and socially just and that maintains the natural resource base. It should have a complete set of objectives as its foundation.”

Clark (1997) adds that “the ‘zoning’ process sets aside key areas for conservation as well as developments such as tourist facilities, port expansions, or aquaculture ponds. In the ICZM context, a comprehensive and integrated approach is used, one that includes social equity as well as economic growth.”

Cicin-Sain and Knecht (1998) focus on typical activities associated with land-use planning, in particular, “studies of coastal environments and their uses; zoning of uses; anticipation of and planning for new uses; regulation of coastal development projects and their proximity to the shoreline; public education on the value of coastal and marine areas; regulation of public access to coastal and marine areas.”

Many authors contend that today ICM programmes and plans should incorporate disaster risk management (European Commission 1999a; Saxena et al. 2013) and climate-change adaptation issues (Rochette et al. 2010; Ramessur 2012; Abdel Gelil 2014), particularly in small island developing states (Griffith and Ash 1993).



Issues addressed by ICM plans depend essentially on the particular circumstances in an area.

It is particularly important that ICM plans incorporate disaster risk management and climate-change adaptation issues.

#### 2.1.4 ICM plan governance

##### ***ICM plan consistency with other national and local policy and legal instruments***

As early as 1996, Vallejo noted that “most of the CZM [coastal zone management] efforts, though technically innovative and in many cases quite successful at the local level ... have evolved in isolation from the mainstream of the national development process.”

ICM plans should, at the very least, not conflict with the provisions of national and local policy instruments: Olsen et al. (2009) note that:

“Planning and decision making at one scale, for example within a municipality or province, should not contradict or conflict with planning and management at another – for example, at the scale of the nation. ... In practical terms this means that a central feature of ecosystem-based governance is that all planning and decision-making must recognize and analyze conditions, issues and goals at least at the next higher level in the governance system.”

The European Commission (1999b) argues in the same vein when it emphasises that “Land use planning at different levels must be coherent.” The need to be consistent requires that objectives, policies and plans be harmonised at the various governance levels by being reviewed at each level in an ICM context (UNEP 2001a). The protocol on ICZM in the Mediterranean goes further than merely requiring consistency, however. Article 18 states that coastal plans and programmes actually implement national ICM strategies.

ICM plans must fit in with other national and local policy and legal instruments; efforts must be made to ensure that the various instruments are consistent with each other.

Furthermore, national and local policy must either be in place or possibly be created to support ICM plans.

##### ***ICM plan status***

Issues relating to consistency between ICM plans and other national and local policy instruments raise the question of the status a plan should have. There are two options. One is that ICM plans can have effective legal status by being recognised by the national legal system or by having their provisions incorporated into other legal documents, such as town-planning documents or other land-use plans. Several authors promote this approach, including Brachya et al. (1994) who argue that “The proposals defined in the Integrated Coastal Master Plan should be formally adopted at an appropriate governmental level.” Similarly, experience in the Mediterranean shows it is advisable for these plans to be “endorsed ... by the appropriate levels of government” (UNEP 2012). In this case, ICM plans fit in with other national and local policy instruments based on the hierarchy of norms and land-use plans developed within the national legal systems.



The other option is for ICM plans to have only informal status. In such cases, implementation of the plan and consistency with other national and local policy instruments would not be based on law so much as on a “moral contract” that would be expected to produce “real engagement from the relevant stakeholders to ensure the implementation of [the] management plan” (Basraouia et al. 2011).

ICM plans may be given effective legal status within internal systems or may be informal initiatives that rely on stakeholder goodwill for implementation.

### ***Penalties for breaches of ICM plan provisions***

While some authors emphasise the need to grant legal status to ICM plans, very few specify the consequences for breaching their provisions. Principle 7 of the “Pacific Integrated Island Management” (Jupiter et al., 2013) does, however, recommend ‘graduated sanctions’.

“Develop a scale of locally appropriate, graduated sanctions for users who violate rules. Sanctions for offences must be consistent with local customs, contexts and the scale of the infraction, but also be sufficient to act as a deterrent for breaking rules. Graduated sanctions with relatively low punishment for first-time offenses can potentially help transform offenders into management implementers by raising awareness of the rules with them and their social networks. They will have greater effect if they are recorded and participants can track the benefits from their implementation.”

If ICM plans have informal-initiative status and are unconnected to the national legal system, no penalties can be imposed for infringing their provisions. It should be noted, however, that in many of the Pacific cultures where chiefly systems, whilst not always legally recognised, can enforce, the notions of law and penalties are not necessarily central.

When ICM plans have legal status, penalties can be imposed for breaching the rules.

If plans are informal, enforcement will depend on stakeholder commitment or on chiefly systems.

### ***Implementing ICM plans***

Some authors note that ICM implementation issues can be forestalled by identifying “the institutional arrangements and the administrative procedures necessary for the implementation of [the] management plan” (Henocque et al. 1997) within the plans themselves. For Brachya et al. (1994), this involves seeking to:

- “Establish the procedures envisaged for the approval and the periodic revision of the plan;
- Identify the authorities which will adopt the planning policies and introduce the planning controls into their operations;
- Define expenditure priorities and the technical personnel required to implement the plan;
- Ascertain how the required “development control” system will operate in principle and the extent to which this system exists (establishment of EIA procedure, cost-benefit analysis, etc.);
- Ascertain the form of instruments proposed, such as building permits, planning permissions, industrial licenses, zoning regulations, development briefs, design directives, etc.;

- Identify the legal basis and, if possible, the administrative body which will exercise these controls;
- Ascertain the powers available to public agencies or corporations for compulsory land acquisition, land banking, land lease, and the practice followed in land valuation in cases of public land acquisition and restriction of private development rights for plan implementation purposes;
- Ascertain the financial institutions which are expected to become actively involved in mobilizing funds for projects, the local budgetary process, the revenue and expenditure structures, and, possibly, avenues for private-public joint ventures, and indicate the likely impact of the implementation measures on the existing structure of financial institutions and processes;
- Specify the instruments to be used in the plan implementation.”

The issue of which authority should be tasked with implementing ICM plans or programmes is discussed by only a few authors. Chua (1996) states that:

“an interagency coordinating body is usually preferred to implement an ICZM program. Most projects of the program will be implemented by the respective local line agencies as part of their normal functions. The coordinating body, on the other hand, oversees the implementation of the projects; monitors and evaluated progress and impacts; and undertakes cross-agency activities, particularly implementation of zonation schemes.”

Several authors emphasise the importance of appointing an authority that has sufficient capacity to implement plans. UNEP (2001a) states:

Many coastal management studies, action plans or even regulations have little or no significant impact on either the resolution of use conflicts or that of the degradation of coastal ecosystems. Often the major reason for this is the absence of resourceful experts with the adequate knowledge and skills to execute step-by-step coastal management procedures. Most coastal planners and managers have a strong sectoral education, encompassing land-use planning, fisheries, urban development, and other sectors.

Hale and Robadue (2002:16) make a similar observation:

“One of the most common mistakes in the design of first generation coastal management programs is to set objectives and place workloads on implementing institutions that outstrip their capacity and financial resources creating an ‘implementation gap’. The result is that tasks are poorly executed, the time required to meet key objectives lengthens and the credibility and efficiency of coastal management endeavours are put at risk. It is important to realistically match the scale and objectives of a program with the capacity of the institutions involved and the strength of the constituencies affected.”

In addition to skills and human resources, ICM implementation also depends on the funding allocated to it. The European Commission (1999b) points to “a need for funding to go beyond planning and to fund implementation and monitoring.”



Cummins et al. (2004) report that innovative financial mechanisms have been identified to help implement ICM, including:

- “Public Private Sector Partnerships: This approach involves cooperative ventures between local government and the private sector.
- Revolving Funds: Used successfully to implement ICZM in parts of Asia, this financing mechanism involves a payback mechanism and can be useful for supporting environmental improvement projects or services. It increases responsibility on behalf of participants at the national or sub-national level. It also ensures sustainable use of financial resources.
- Private Sector Funds: Involving co-financing from coastal users. This approach can enhance responsibility and increase cost effectiveness.
- Investment Funds: This financing approach involves the identification of investment opportunities to generate capital.”

On the whole, however, the literature provides scant detail on funding methods for ICM programmes and plans.

ICM plan implementation issues need to be anticipated by identifying the institutional arrangements, administrative procedures and required financial and human resources.

### ***Evaluating and updating an ICM plan***

The “dynamic” (Cicin-Sain and Knecht 1998), “flexible” (UNEP 1995), “ongoing and iterative” (European Commission 1999a) nature of ICM that is “in perpetual movement” (Clark 1992), requires policies and instruments providing for implementation to be regularly evaluated and updated.

Brachya et al. (1994) argue that:

“The monitoring or ‘watchdog’ part of the ICAM [integrated coastal area management] process must establish a regular flow of information on the decisions, actions and investments involved in the implementation of the ICAM. Evaluation uses the information generated by continuous monitoring to analyze: the effectiveness of ICAM decisions, the efficiency of the investments undertaken, whether the benefits of the ICAM process have been equitably distributed among the various social groups of the community; and the impacts of ICAM actions on the environment.”

The literature is nevertheless silent on the actual operational procedures for evaluating and updating ICM plans.

The dynamic nature of ICM requires that any plans developed must be evaluated and updated on a regular basis through a process of adaptive management.

## 2.2 International case studies

### 2.2.1 Nador Lagoon management plans (Morocco)<sup>2</sup>

#### *Background*

Morocco's Mediterranean coast, from Tangier in the West to Oujda on the Algerian border, has long been an isolated area. Cut off from the rest of Morocco geographically by the Rif mountain range and historically by the heritage left by various colonisers, it has developed more slowly than the centre of the country, which is economically more vibrant. In the 1970s, developing the north coast became a major government priority. The series of large-scale projects that eventuated did not, however, enable the region to catch up. Since 2003, the Royal Initiative for the Development of the Eastern Region has pursued the same objectives while attempting to recast the region's development. Major infrastructure projects have been launched, such as Tangier-Med Harbour, Ksar Sghir Naval Port, the Mediterranean bypass and tourist facilities, auguring well for faster development in the future.

Located on Morocco's eastern Mediterranean coast, Nador is a major urban centre and port city. It overlooks the eponymous lagoon, commonly known as Mar Chica in Spanish and Sabkhat Bou Arc in Arabic. It is the second-largest wetland area in the Mediterranean, with an area of 115 square kilometres (sq. km). The biodiverse lagoon was officially listed on the Ramsar List of Wetlands of International Importance in 2005. Despite this, it has been subjected to great human pressure, including heavy industrial development, farming, and poorly-managed urban growth, resulting in severe pollution from raw sewage effluent and pesticides, which has negatively affected water quality.

#### *Projects and management plans developed in the 2000s*

Nador Lagoon provides an ideal opportunity for development cooperation to offset the area's lagging development and forestall the dangers looming over its natural environment. Driven by various donors, for many years such cooperation has largely focused on sustainably managing the area. Four major coastal management projects have been funded since 2000:

- MedWet Coast, Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region (2000-2005), a project funded by the United Nations Environment Programme (UNEP) and the French Global Environment Facility (FFEM);
- The Cap Nador project ("an Integrated Coastal Zone Management (ICM) approach for the sustainable development of the coast of the Province of Nador, Eastern Region, Morocco") (2006-2008) funded by the European Union and its Short- and Medium-Term Priority Environmental Action Programme (SMAP III);
- The Adaptation to Climate Change in Morocco (ACCMA) project (2007-2010), funded by the United Kingdom's Department for International Development (DFID) and Canada's International Development Research Centre (IDRC); and
- The "Environmental Clean-up" project, which supports the implementation of a clean-up and protection plan for Nador Lagoon, funded by FFEM.

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<sup>2</sup> A case study based on an assessment by the author published in 2012 (Garnaud and Rochette).



All four projects aim at developing lagoon management plans under various designations, i.e. “integrated wetland management plan” for MedWetCoast, “ICM action plans” for the Cap Nador project, “adaptation strategies and land-use planning measures” for ACCMA and “lagoon pollution reduction, protection and management plan” for the “Environmental Clean-up” project. These plans have had very little impact on land-use planning, however, as they were developed without any direct connection with land-use planning documents and, as such, neither replaced nor amended their provisions. Also, even when one management plan was relevant and accepted by the local stakeholders, it had little hope of being implemented, as it was systematically superseded by a fresh document developed under the next project.

Marchica Med is a symbol of this disconnect between the projects and the most decisive components of land-use planning. It is a state-owned, limited-liability company that was set up in 2008 at the behest of King Mohammed VI. It is the dominant player in lagoon development for three reasons. First, the development project run by Marchica Med is spread over a large area, with plans to set up seven holiday resorts made up of 1000 bungalows, 2400 flats and six marinas, covering a total of 2000 hectares. Second, the project is set to operate until 2025, which will inevitably affect other projects over the coming years. Third, and perhaps most importantly, the provisions of the development plan Marchica Med is preparing will take precedence “in the event of conflict, over town-planning documents and, if necessary, any other sectoral plans.”<sup>3</sup>

The final report of the Cap Nador project was published a few weeks before Marchica Med was launched and Cap Nador was, in effect, replaced by the Marchica Med project, which caused the Cap Nador to lose all its strategic significance.

Marchica Med has not taken on board the ICM and adaptation to climate change projects developed since Marchica Med was set up and has not incorporated these into the development project currently being prepared.

The ACCMA project has not built strong links with the land development project, despite being implemented at the very time Marchica Med launched its initial undertakings. The ACCMA project document does not mention it and some of the players involved stated, whether out of ignorance or caution, that they were unaware of the initiative, despite it having the royal seal of approval and being advertised on billboards everywhere in town.

The “Environmental Clean-up” project implementers are aware of the Marchica Med scheme and did consider joining the development agency to prepare the lagoon management plan, but were unable to guarantee Marchica Med’s participation and would have had to rely on the company’s goodwill, which many felt was wanting.

Thus, there has been no consistency or integration between the successive projects and the decisive elements of land-use policy. When Marchica Med entered the stage, the gap widened between the context in which the projects operated and the realities of lagoon management.

Although the coastal management projects may have had positive one-off impacts, they have not affected the determining factors in the lagoon’s development. As a result, the effort became fragmented, as did government intervention generally, and the project approach generated a need for integration (Turner and Müller 2003).

The lack of linkages between the projects and national policy can also be seen outside the land-use planning component. The ACCMA project, for example, contained a component that involved training teachers in climate-change issues. The teachers perceived it to be a useful initiative, but said it would be difficult to pass the information on to their students as the subject was not on the curriculum set by the Ministry of Education.

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3 Section 22 of the Marchica Lagoon Area Planning and Development Act no 25-10.



The implementation and sustainability of the coastal management projects have therefore been considerably hampered by the lack of linkages with the legal instruments and public policy that govern the area and determine the lagoon's future.

### ***Lessons learnt***

This study shows that the coastal management plans have had very little impact on effective management (Mermet 1992) of the lagoon. This is for several reasons, as listed below.

First, each project failed to incorporate the legacy of previous projects in the area at the planning stage, by failing to forge effective links and create continuity with them. Each project therefore appeared to be operating in almost virgin territory, making little use of previous experience beyond references to its predecessors in its initial document, generally to state that they had once existed or to discuss their failures. As a result, the projects started over again on the same basis and suggested using methodologies that, although conceptually different, all too often ended up with similar activities.

Second, the management plans elaborated through these projects did not make provision for sufficiently specific or robust implementation arrangements.

Third, in governance terms, the proposed management plans proved to be somewhat inoperative, due mainly to the disconnection between the plans and the factors that truly determine land-use planning. It was therefore difficult to incorporate the plans into public policy.

Conclusions from past experience must be drawn at the very outset of ICM plan development and plans must take into account past successes and failures.

An ICM plan that has no legal status and that has been prepared without linkages to area-planning documents may have very little impact on the way the area is actually managed.

### **2.2.2 Belize ICM plan<sup>4</sup>**

#### ***Background***

Belize is home to the planet's second-longest unbroken reef system and its coastal zone contains a rich diversity of habitats, including three atolls, several coastal lagoons, mangrove forests, and over 300 cayes (small sandy islands). Over 40 per cent of the Belizean population live and work in the coastal zone, which supports thriving fisheries, aquaculture and tourism industries. As a result of the multiple uses and increasing demand for coastal lands, in 1998 the government of Belize adopted the Coastal Zone Management (CZM) Act to address issues such as overfishing, population growth and rapid development. The CZM Act mandates the Coastal Zone Management Authority and Institute (CZMAI) as the entity responsible for designing a National ICZM Plan. The plan was prepared with a 15-year vision of sustainable marine and coastal resource use and management. Adopted in 2013, it seeks to recommend actions that will ensure sustainable coastal resource use by balancing conservation ideals with the social and economic needs of the country.

<sup>4</sup> This case study is based on the Coastal Zone Management Authority and Institute (CZMAI) Belize Integrated Coastal Zone Management Plan. CZMAI; Belize City; 2013.



### *Elaboration of the ICZM Plan*

The elaboration of the ICZM Plan entailed 17 steps, identified in Table 1 below. Stakeholder participation was critical in every step of the process, especially in data acquisition, ecosystem assessment and marine spatial planning. The stakeholder engagement process was primarily coordinated with the coastal advisory committees for each planning region along the coast and on offshore cays, which convened representatives from multiple sectors and interests – from tourism to fishing to preservation – to make recommendations for development and conservation in their regions. Stakeholder consultations were held countrywide at strategic locations during the planning phase. These consultations included community-level group meetings and interviews with local CZM experts and key partners in the Natural Capital Project.<sup>5</sup> These consultations were crucial in identifying existing conflicts of interest with regard to resource use, and the vision of stakeholders in relation to maintaining a healthy coastal and marine environment that will continue to support livelihoods in the future.

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5 The Natural Capital Project is based in the United States and is a partnership between World Wide Fund for Nature (WWF), The Nature Conservancy, the University of Minnesota and Stanford University.

**Table 1. Steps in preparing the ICZM Plan**

<b>Preparation</b>	Step 1: Coastal Advisory Committees (CACs) for each coastal planning region prepare draft development guidelines, through public consultation.
	Step 2: The CACs forward guidelines, with endorsements, to the Chief Executive Officer (CEO) of the CZMAI.
	Step 3: The CEO forwards the guidelines to the CZM Advisory Council (CZMAC) for review, assessment and evaluation within 30 days.
<b>Modification</b>	Step 4: While CZMAC is reviewing the guidelines, the CEO/CZMAI forwards the guidelines to other relevant government agencies, statutory bodies, non-governmental organisations (NGOs) and members of the private sector that are not on the council for review and comments within 20 days.
	Step 5: The CEO/CZMAI receives comments from relevant government agencies, statutory bodies, NGOs and the private sector and forwards them to the CZMAC.
	Step 6: The CZMAC forwards comments on the guidelines to the CEO/CZMAI, clearly indicating the recommended changes that received the full support of the council as well as areas of non-consensus.
	Step 7: The CEO/CZMAI submits the plan (which is the compilation of all the guidelines with all comments received) to the Board of Directors (BOD) of the CZMAI for adoption. As an attachment, the CEO indicates the agency's technical and professional assessment of the guidelines and process of preparation.
	Step 8: The BOD reviews the plan within 60 days, makes modifications, if any, and publishes in the Government Gazette a notice to the public that the plan is available for public inspection.
	Step 9: The public has 60 days to review and submit comments, in writing, to the CZMAI from the date of notice of the availability of the plan for inspection.
	Step 10: At the end of the 60 days, the BOD may approve the plan subject to modifications it sees fit.
<b>Approval</b>	Step 11: The BOD submits the plan to the minister responsible for the CZMAI for approval (with any comments received from the public).
	Step 12: After approving the plan, the minister tables it in the House of Representatives for approval by affirmative resolution.
<b>Effectuation</b>	Step 13: Upon approval, the plan is published in three consecutive issues of the Government Gazette.
	Step 14: The plan comes into effect on the last date published or on a later date that may be specified within the plan.
<b>Implementation and Monitoring</b>	Step 15: The plan shall be implemented by the government and by non-governmental agencies responsible for certain aspects of the plan.
	Step 16: The CZMAI shall, in consultation with the affected government and NGO bodies, monitor implementation.
<b>Revision</b>	Step 17: Plan revision must occur within four years, commencing from the date the plan comes into effect and must include steps 3-7 above.



### *Content of the ICZM Plan*

The plan includes (i) a national strategy document; (ii) region-specific CZM policy recommendations, (iii) a zoning scheme.

Titled “Vision for a sustainable coast”, the national strategy document focuses on four strategic objectives:

- “Encouraging Sustainable Coastal Resource Use”, with recommendations on coastal research and monitoring; management of protected areas, invasive species and fisheries; mangrove protection; coastal habitat and species conservation; coastal agriculture; aquaculture and mariculture; minerals extraction; and energy development.
- “Supporting Integrated Development Planning”, with recommendations on coastal land-use planning and development; coastal population and growth; beach and shoreline management; marine traffic; marine pollution control; marine tourism and recreation; marine dredging; disaster risk management; cultural heritage conservation.
- “Building Alliances to Benefit Belizeans”, with recommendations on education, awareness and communication; collaboration in enforcement and monitoring; sustainable coastal economies; national network for managing the coast.
- “Adapting to Climate Change”, with recommendations on socio-ecological vulnerability and resilience; socio-economic adaptation capacity; prioritization of ecosystem-based adaptation; and governance as a tool for building resilience.

Specific CZM policy recommendations (“guidelines”) were adopted for nine coastal regions.<sup>6</sup> These guidelines represent the views and recommendations of the stakeholders of each region, and support policy development for ICM. They must be implemented by all those agencies that have legal mandates and/or permitting powers that impact resource utilization in the coastal zone of Belize, in partnership with each region’s stakeholder groups.

The CZMAI, in collaboration with the Natural Capital Project, developed a science-based coastal and marine spatial plan that allows for the continuous delivery of environmental benefits to Belize by creating a zoning scheme to negotiate competing interests for management of the Belizean coastal zone and to resolve conflicts in resource use.<sup>7</sup>

The process of creating the plan consisted of multiple steps, including:

- Design, whereby the process for developing the plan was established and refined.
- Stakeholder engagement, whereby representatives from relevant sectors of government, industry, and civil society, as well as members of the public, were involved in each of the subsequent steps of the planning process.
- Creation of zoning categories and use zones, whereby the current uses and values Belizeans have for the coastal zone were identified and mapped.
- Data collection, whereby quantitative and spatial information about the ecosystems and uses of coastal and marine areas were gathered into a database and catalogued in maps.

6 These regions are: Ambergris Caye, Caye Caulker, Central Region, Lighthouse Reef Atoll, Northern Region, Turneffe Atoll, South Central Region, South Northern Region and Southern Region.

7 See: Map portal for the Belize ICZM plan. [http://www.coastalzonebelize.org/cz\\_portal/index.html](http://www.coastalzonebelize.org/cz_portal/index.html)

- Development of alternative zoning options and scenarios, whereby scenarios for possible future configurations of use and development were designed and mapped.
- Cost–benefit assessment, whereby the options were analyzed to compare the costs and benefits to ecosystems and society with an ecosystem service assessment tool.
- Review and iteration, whereby all maps and analyses were reviewed by experts and stakeholders and thereby improved to ensure broad participation and the highest quality results.
- Elaboration of the written plan, whereby results were translated into a comprehensive zoning scheme and recommended actions.

### *Implementation of the ICZM Plan*

**Table 2. Implementation plan of the national ICZM Strategy**

<b>Strategic objective: “Encouraging Sustainable Coastal Resources Use”</b>			
<b>Topic</b>	<b>Actions required</b>	<b>Lead agencies</b>	<b>Timeframe</b>
<b>Coastal Research and Monitoring</b>	Develop a centralized data repository for Belize on ecosystem health and human use activities within the coastal zone.	Coastal Zone Management Authority and Institute	3rd quarter of 2013
	Facilitate data accessibility among government agencies and non-governmental organizations for monitoring ecosystem health and human use impacts on the coastal area.	Coastal Zone Management Authority and Institute, with government departments and NGOs.	Ongoing
	Establish a national water quality monitoring programme for Belize.	Coastal Zone Management Authority and Institute, Department of the Environment	4th quarter of 2013
<b>Protected Areas Management</b>	Prioritize protected areas management in national planning, including increase in investment in management of coastal and marine protected areas, monitoring and research	Ministry of Forestry, Fisheries and Sustainable Development, and National Protected Area Secretariat	Ongoing
	Strengthen legislation and address management measured recommended by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in order to regain the World Heritage status for the Belize Barrier Reef Reserve System	Ministry of Forestry, Fisheries and Sustainable Development	4th quarter of 2013



### ***Lessons learnt***

The Belize ICZM plan is a particularly ambitious document. Its content includes a national strategy, regional guidelines and a zoning system, and it covers issues ranging from protected areas to mineral extraction and from cultural heritage conservation to climate-change adaptation, attesting to the authorities' commitment to offering an all-encompassing vision of the coastal area's future. The plan was developed based on a major data collection exercise on the state of the environment and user conflicts, in which the stakeholders were involved effectively. The plan development process was also amply supported by the use of scenarios and mapping tools. The document was operational immediately as the action required by the various ministries and agencies had been identified and a timetable set.

An ICM plan can offer a comprehensive view of an area by addressing a very large number of coastal issues.

Mapping tools used to support scenario development prove to be effective decision aids.

When the ICM plan itself identifies the measures required to implement it and it lists the bodies tasked with carrying them out, it becomes immediately operational.

### **2.2.3 The Provincial ICM Plan in Ra (Fiji)**

#### ***Background***

Of the 14 provinces in Fiji, 12 are coastal and two are land-locked. One of the coastal provinces, Ra, is in the final stages of developing a provincial ICM plan. The development of this plan is mandated under the 2005 Environment Management Act. A sub-committee of the National Environment Council, the Integrated Coastal Management Sub-committee, has endorsed the recommendation in Fiji's ICM Framework that ICM plans be developed initially for a few coastal provinces.

The development of the plan in Ra is being funded by donors and additional funds are being secured to replicate this process in other provinces. The process for developing the plan is one of iterative consultation using a bottom-up approach.

While Ra is the first province to develop a formal ICM plan, ICM-related work in Fiji has a long history that began in 2002. The first pilot site for ICM work was the Coral Coast, located on the southwest coast of the main island of Viti Levu. The ICM pilot project brought stakeholders together to identify conflicting uses of and threats to the coastal zone. It established the Coral Coast ICM committee and an ad hoc national ICM committee. Threats to the coastal zone included rapid and often unregulated tourism development, declining fisheries, and pollution. Despite the functional work of the ICM pilot project, no formal plan was developed and no legislated mandate was given to the work, which relied instead on voluntary agreements. A good example of such a voluntary agreement from the Coral Coast work was over the issue of "live rock". Following discussions among traders and other stakeholders, a plan was developed to replace wild-harvested live rock with cultivated rock over a five-year period. One of the key lessons from the ICM pilot on the Coral Coast was the need to codify such agreements and mainstream them into the work programmes and budgets at the local, provincial and national levels. In many ways, the intervening period from this initial ICM work to today has enabled this to happen and to produce a landscape now fertile for the progression of ICM work in Fiji.

### ***Elaboration of the plan***

The specific inclusion of ICM in Fiji's law came from a cabinet submission by the Ministry of Tourism through their participation in the Coral Coast pilot project. The 2005 Environment Management Act (EMA) in Part 2, section 8 dealing with the establishment and function of the National Environment Council states "The Council may appoint a committee for coastal zone management to prepare a coastal zone management plan." The National ICM sub-committee of the National Environment Council was established at one of the initial meetings.

Members of the sub-committee include line ministries responsible for natural resource management and development (e.g. fisheries and forests) and for community development (including the indigenous Fijians and all other ethnic groups and those with a statutory regulatory mandate such as the Department of Town and Country Planning), along with representatives of NGOs/civil society organisations, statutory authorities (Fiji Roads Authority, Water Authority of Fiji) and representatives of the private sector.

The sub-committee was mandated to formulate an Integrated Coastal Management Framework outlining the process, governance and context of establishing ICM plans. The framework called for the establishment of provincial ICM plans, through committed and iterative community and stakeholder consultation. The framework also alluded to multiple provincial plans, in totality forming a national ICM plan.

For the development of the plan in Ra, six districts of the province developed, through participatory techniques, a list of the key threats (existing as well as new and emerging) affecting the coastal zone. These district-level threat analyses were presented at a provincial meeting and threats common to all the districts were identified. The plan will focus around these threats to the coastal zone. It will be issue-based, outlining management interventions suitable for each threat and identifying the roles and responsibilities of various stakeholders in the implementation of the plan.

### ***Content of the plan***

At national ICM stakeholder meetings, it was identified what would be the key content of individual provincial ICM plans. The contents include:

1. Executive summary.
2. Introduction, including the purpose of the plan, its scope (geographic and sectoral), timeline, a summary of relevant laws and policies and a statement of endorsement of the plan.
3. Vision, goals and objectives.
4. Profile of the area (social, environmental and economic), recognizing that the profile is dynamic and that the development of the plan is not contingent on the formulation of an exhaustive profile.
5. ICM issues.
6. Strategies and actions (special area designation, priority ecosystems, development of by-laws and provincial policies).
7. ICM institutions and governance (roles and responsibilities).
8. Communication strategy and socialisation of the ICM plan.
9. Enforcement of actions and regulations.

10. Monitoring and evaluation of management interventions (including key performance indicators and the adaptive management processes for the plan).
11. Financing of the provincial ICM plan.
12. Annexes (detailed implementation plans and annual work plans).

### ***Governance of the plan***

Under the Integrated Coastal Management Framework, the oversight and mandate for the establishment of provincial ICM plans is vested with the national sub-committee. The framework was mute, however, on specific governance mechanisms at the provincial level, instead relying on subsequent stakeholder consultation to suggest the appropriate governance mechanisms.

Subsequent national stakeholder meetings hosted by the ICM sub-committee called for the establishment of provincial ICM committees, so as to begin the process of developing plans at the provincial level. The provincial ICM committees will be co-chaired by the provincial administrator (the government-development officer at the provincial level) and the *Roko Tui* (the government representative responsible for the welfare and development of the indigenous Fijians). The provincial ICM committees will report to and interact with the national ICM sub-committee and it is expected that the co-chairs of the provincial committees will sit on the national sub-committee. Membership of the provincial committees is intended to be a local-scale representation of the members of the national sub-committee, thus including line-ministries, private sector interests, NGOs and statutory authorities, though the membership is intended to be more flexible and responsive to the specific issues in a given province.

### ***Lessons learnt***

The 2005 Environment Management Act defines the coastal zone as “the area within 30 metres inland from the high water mark and includes areas from the high water mark up to the fringing reef or if there is no fringing reef within a reasonable distance from the high water mark.” The national ICM sub-committee felt that this definition was restricted, however, as it did not account for the full range of issues that can affect the coastal zone and it did not follow recognized governance boundaries. Accordingly, the national sub-committee made a submission to the National Environment Council to expand the scope of this definition such that “the inward boundary for ICM should be the inland border of all coastal districts (Tikinas) that have a coastline and that the seaward boundary of ICM plans be the outer boundary of the adjacent traditional fishing ground (iQoliqoli).”

Following discussions on governance of the ICM plan and the process to develop it, it was decided that use should be made of existing decentralized government agencies; the provincial administrator and *Roko Tui* should co-chair the committee. It was also decided, however, that, to improve coordination, a provincial ICM committee should be established.

In initial discussions in Ra to identify the coastal management issues and threats, it was clear that many of the issues relate to a lack of coordination between agencies and the incomplete implementation of existing legislation and policy. As such, at least for now, the provincial ICM committee will have a coordination role rather than a regulatory role.

Another issue that is relevant to ICM in Fiji is that indigenous villages are not currently subject to many of the planning and regulation laws, including the Town and Country planning laws. Whilst efforts have been made to rectify this, including the introduction of the new draft Public Health Act, it is clear that sectoral legislation must apply across all areas and to all stakeholders within the ICM planning area.





More general lessons learnt thus far from the Fiji case study include the following:

1. Bottom-up consultation is necessary to ensure there is grassroots ownership and “buy-in” with the ICM plan. Consultation needs to be transparent and include the participation and empowerment of all stakeholders.
2. Top-down supporting mechanisms are needed. In the case of Fiji, these were provided by the 2005 Environment Management Act and the National Integrated Coastal Management Framework.
3. Existing governance structures should be used wherever possible.
4. Continued efforts are needed to build the capacity of local actors to implement the ICM plan and to engage in regular and informal contact with individuals within the province to empower them to perform their roles.
5. Plans should focus on specific issues identified by stakeholders and need to adapt to new issues as they arise, but should not set out to address speculative issues that may not be of importance.
6. The development of plans is not something that can be done overnight as a desk-based exercise; instead they need several rounds of consultation and will take months to develop.
7. The implementation of plans needs committed financial resources.

The approach taken is critical. It needs to engage stakeholders in a meaningful manner that empowers them. The development of the plan is therefore not something that can happen overnight, but needs concerted, ongoing effort.

The plan is legally mandated and, as such, ensures de-centralised government stakeholders are central to the plan and the implementation of activities it contains.

To ensure the plan is meaningful, it should focus on area-specific management issues as identified by local stakeholders.

#### 2.2.4 The Integrated Climate Change Programme in Choiseul (Solomon Islands)

##### ***Background***

The Choiseul Integrated Climate Change Programme (CICCP), as its name suggests, relates primarily to climate change mitigation and disaster risk reduction. It was born of a history of natural resource management, however, and its long-term objectives are economic development, natural resource and environmental management, and social and human development: all key tenets of ICM. As such, it is a suitable case study. While the programme does not yet have an integrated plan, a number of sectoral plans do exist and a process is in place to integrate these plans.

Choiseul Province is one of the nine provinces of the Solomon Islands and comprises three main islands of which Choiseul Island (locally known as Lauru) is by far the largest. The population of Choiseul Province was 26,372 in 2009 and is growing at a rate of 2.8 per cent per annum, the second-highest provincial population growth rate. Local communities are highly dependent on the natural resources that underpin their economy, with copra, garden crops, seaweed, fish and timber forming the extent of income sources.



Land ownership in Choiseul, as in the rest of the Solomon Islands and much of Melanesia, is based on tribal land tenure. Choiseul has over 300 tribal land-owning groups, and in many instances land boundaries and ownership have been contested; in some instances they continue to be.

Like many of the provinces in the Solomon Islands, Choiseul has had a long history of natural resource management and sectoral planning (discussed in more detail below). In recent years there has been growing impetus to integrate these plans and, in particular, to view these plans through a climate change adaptation and disaster risk reduction lens. This integration is funded largely by donor organisations and is part of the Choiseul Integrated Climate Change Programme.

### *Elaboration of the plan*

While there has been a long history of community-based natural (especially marine) resource management on Choiseul island, the first attempt to integrate this into a province-wide plan was undertaken in 2009 with the formulation of the Luru Protected Area Network (LPAN) as a partnership between the Luru Land Conference of Tribal Communities (LLCTC) and the NGO, The Nature Conservancy.

The resulting protected area network included 12 marine protected areas, five existing community protected areas and six terrestrial protected areas, covering 7913 hectares of land and sea. The role of the LLCTC was critical in forming this initial “ridge-to-reef conservation” plan as many land ownership disputes threatened the process of formulating then implementing the plan.

The LPAN plan was prepared through community-consultation and participatory mapping. Community leaders mapped various conservation features of importance, including water sources, land and marine resource sites in use, cultural and historical sites and important ecological sites. A reserve design planning process was then used to identify key areas for protection and a series of community workshops was undertaken to validate these proposed areas, ensure there were no conflicts and establish the protected areas.

Subsequently, a group of development partners, including the Secretariat of the Pacific Community (SPC), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Secretariat of the Pacific Regional Environment Programme (SPREP), undertook a climate change vulnerability and adaptation assessment in each of the communities in Choiseul. This assessment, published in 2013, built on the earlier work associated with the LPAN plan and recognized the desire of the Government of the Solomon Islands to adopt an integrated and holistic approach to climate change adaptation at the provincial level. After assessing community-specific climate change adaptation (and, more generally, community development) needs, the report went on to propose a series of generic adaptation measures and specific activities, by community.

Once a set of specific actions and activities to improve resource management and climate change adaptation had been prepared, Choiseul Province was selected to trial the approach of integrating climate change adaptation and development. The resulting programme is known as the Choiseul Integrated Climate Change Programme. The programme aims to be an integrated, holistic and programmatic ridge-to-reef approach, supported by government agencies, development partners and NGOs working together in multiple sectors to implement the actions and activities outlined in the climate change vulnerability and adaptation assessment.

### ***Content of the plan***

The content of the initial ridge-to-reef conservation plan focused on the development of protected areas forming the LPAN. The plan was a technical report and did not include details regarding implementation and provided little information on governance mechanisms. Instead, the plan was reliant on the interests of communities that had been approached during the consultation phase.

While the Choiseul Integrated Climate Change Programme does not have a specific written plan, it does have a series of written objectives, both long-term (economic development, natural resource and environmental management and human and social development) and medium-term (improved awareness and understanding of climate change issues, improved governance and leadership, strengthened partnerships and coordination and improved sustainability of programmes).

### ***Governance of the plan***

The LLCTC played a pivotal role in the early establishment of province-wide management interventions as part of the LPAN. The LLCTC employed a full-time Environmental Community Conservation Officer whose role it was to validate community consensus on plans and to ensure there were no underlying conflicts that planning across traditional governance boundaries would exacerbate.

The Choiseul Integrated Climate Change Programme has two tiers of governance. The first is the Partners Advisory Group (PAIG), which comprises national ministries and development partners. This group is responsible for coordinating inputs into the CICCPC. The lead agency within the PAIG is the Ministry of Environment, Climate Change, Disaster Management and Meteorology.

The second level of governance is the Choiseul Provincial Steering Committee (PSC), which includes representatives of the technical offices of both the government line-ministries and NGO partners in the province. The PSC is responsible for coordinating programme implementation across the sectors. The provincial government has the lead in the PSC.

Aside from the mandated responsibilities for development each of the government ministries has at both the national and provincial levels, neither the PAIG nor the PSC has a regulatory role and the existence of these groups is not mandated by any legal statute.

### ***Lessons learnt***

In the case of Choiseul and many other islands of the Pacific, the term “coastal zone” is somewhat meaningless. Instead management of small, high islands needs to include everything from the ridge to the coast and reef. This scale was chosen in the development of both the original province-wide planning document that developed the LPAN and, more recently, the Choiseul Integrated Climate Change Programme.

Working with indigenous rural communities in Choiseul as in much of the rest of Melanesia has both advantages and challenges. Pacific Island cultures emphasise cooperation, collaboration and participation and, as such, are ideally suited to grass-roots participatory planning. However, the complexities of such societies are often hidden and are only revealed over time as project implementation happens. A good example of this is historic and contemporary land ownership disputes. In the case of work on Choiseul measures including ensuring through independent verification that community consensus exists around planned activities.

The financial and technical costs associated with ICM-type initiatives are a key concern in the region. The work on Choiseul is based on a government drive to better integrate planning into holistic management actions at the provincial level. By doing this, the project aims to reduce the overall implementation cost



by integrating across government sectors and nesting adaptation projects within existing government processes and systems. The Choiseul Integrated Climate Change Programme recognizes that the timescale of donor-funded interventions is often not compatible with the timeframes over which true integration at all scales happens. As such, national and provincial governments, NGO partners and local communities have committed to seeking funds and resources to continue implementation beyond the programme and funding lifecycle.

There is a need to respect and align the planning process and implementation of activities with customary institutions and norms (such as land tenure).

The integration committees must ensure that donor-funded and government initiatives are aligned to avoid duplication and the inefficient use of resources.

Planning and implementation cycles often extend beyond the timeframe of donor support. As such it is critical that strategies exist to ensure the long-term sustainability of the approach through mainstreaming it into core government responsibilities.

## 2.2.5 Marshall Islands Coastal Management Framework

### *Background*

The Republic of the Marshall Islands (RMI) consists of 29 atolls and four islands that span a 2-million sq. km Exclusive Economic Zone in the central Pacific. RMI has a population of 68,480 with two thirds of these living on Majuro, the administrative capital, and Ebeye, a densely-populated island. The remaining population is spread across the outer islands, where the population follows traditional rural lifestyles. The population growth rate is 1.72 per cent (estimated in 2014). This growth is focused within the two main population centres, further adding to the extremely high population density in these centres. Environmentally, there is a gulf between the ecological health and function of the outer islands which are near pristine and the two major population centres. The urban coasts have become severely degraded, increasing vulnerability to impacts (most notably to climate change, given the atoll nature of the islands), decreasing the potential of sustainable development and increasing human-environmental health hazards.

Recognising these impacts, in 2008 the RMI Environmental Protection Agency (EPA) established a National Coastal Management Framework. The implementation of this framework at the local scale has been problematic but has led to a number of parallel initiatives being taken throughout the RMI.

### *Elaboration of the management framework*

The 1998 Coast Conservation Act called for, among other things, the formulation of a National Coastal Management Framework. This document was intended to be a living document, periodically reviewed every three years. Work to develop the framework began in 2005 when the EPA conducted workgroups and built the capacity of stakeholders to develop the framework and, subsequently, implement some of the recommendations it made.

The framework itself acknowledged that long paper plans at the national level would do little to ameliorate local impacts on the coastal zone and instead was intended as a summary of activities and proposals to protect and conserve the coastal zone. Several spin-off and parallel processes and legislative instruments flowed from the framework.


The Sustainable Development Regulations (2006) were created to regulate development activities in the coastal zone, which was defined as “the area lying within a limit of twenty-five feet landwards of the high water mark and a limit of two hundred feet seawards of the mean low water line.” The term “development” is used in the regulations to include any activity likely to alter the physical environment in any way. Instead of providing a parallel legislation to existing regulations (such as the Earthmoving Regulations), the Sustainable Development Regulations superseded all existing regulations relating to coastal zone development. The regulations contain a hierarchy of developments: minor, coastal and major, reflecting both the scale of likely coastal zone impacts and the geographic location for these (whether on one of the urban coastlines or the remote outer atolls). Permits are required for most development activities and conditions can be placed on any permit. In addition, issuance of a permit also necessitates the development and endorsement of an Environmental Management Plan.

Local community-based management was also emphasised in the framework and, working through the Micronesia Challenge signed by the President of the RMI in 2006, the National Conservation Area Plan (or Reimaanlok meaning “looking ahead”) was developed in 2008.

### ***Content of the management framework***

The National Coastal Management Framework was intended to be at a national jurisdiction, focused on the issues of greatest urgency in and around the main urban coastal centres. The framework begins by outlining the current condition of the coastal zone and the activities that are posing a threat. For each activity or group of threats, the framework included a series of recommendations as follows:

1. Coastal development, including:
  - a. The development of new Sustainable Development Regulations.
  - b. A phase out of shallow-water lagoon sand mining and dredging for commercial purposes.
  - c. Continued national emphasis on the importance and utilisation of Environmental Impact Assessments as a management tool.
2. Living coastal resource utilisation, including:
  - a. Promotion of sustainable utilisation strategies through the development of local management plans, biological monitoring and EIA processes.
  - b. Promotion of national conservation areas in recognition of the Micronesia Challenge.
3. Land based impacts, including:
  - a. Elimination of plastics and hazardous waste in private landfills that may enter the lagoon during storms or high tides.
  - b. Phase out of private landfills that do not meet EIA requirements.
  - c. Initiation of coastal-zone clean-up programmes in the worst-impacted urban areas.

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4. Marine activities, including:
    - a. Greater coordination and monitoring of vessels such that if a marine accident occurs the response can be instantaneous.
    - b. Increased collection of information pursuant to the Marine Water Quality Regulations for visiting vessels.
  5. Natural threats and disasters, including:
    - a. Awareness-raising both domestically and internationally about the threats posed by natural disasters, particularly in relation to climate change impacts.
  6. Coastal data collection.
  7. Education and outreach.
  8. Legal management options, including:
    - a. Revision of EPA fining systems to provide warnings, appropriately-scaled penalties and the opportunity for judicial redress.
    - b. Review of all regulations that apply to the coastal zone.
  9. Capacity building at the Environment Protection Agency.

### ***Governance of the management framework***

The Coast Conservation Act, in addition to calling for the development of the National Coastal Management Framework, established a Director of Coastal Management post. In order to coordinate this position with existing government agencies, the director is also the General Manager of the RMI Environmental Protection Agency. The Director of Coastal Management assumes the role under the complementary Sustainable Development Regulations and it is through these regulations that the post of Director of Coastal Management is given regulatory powers.

A parallel advisory council (the Coastal Management Advisory Council [CMAC]) was also established. The CMAC is an inter-governmental, non-governmental group led by the Marshall Islands Marine Resources Authority. Though CMAC has no legislated mandate, its membership includes the EPA and the council is now assuming a role as a clearinghouse and coordinating mechanism for coastal management initiatives. The CMAC meets monthly to discuss project progress and emerging coastal management threats. Given the membership of the EPA, CMAC has an important role acting as the eyes and ears of the EPA and of the Director of Coastal Management. The CMAC is also facilitating the establishment of National Protected Area legislation to formalise protected areas currently designated under the auspices of community-based fisheries management and atoll-specific management plans.

### *Lessons learnt*

Critics have suggested that the National Coastal Management Framework was prepared without a suitable level of consultation. The framework itself acknowledges that the efficacy of a national plan is likely to be limited given the broad context, ranging from the densely populated urban centres to the sparsely populated outer atolls. That said, the framework has, at least in part, led to the development of regulations, to emphasis being placed on existing development planning processes and to the roll-out of conservation planning at a more grassroots level. As such, the development of the framework appears to have been beneficial, at least in some situations.

The threats to the coastal zone in the urban centres remain acute however. It continues to be difficult to find an acceptable balance between the need for development and protection of the fragile ecosystem. A good example of this is the well-publicised extension of the Majuro International Airport runway, which will involve the excavation of limestone.

When plans are made at the national level, it is hard to account for regional differences and, as such, implementing national plans at the local scale can often be problematic.

National plans can identify, promote and act as a catalyst for parallel and complimentary efforts, such as introducing legislation or new approaches.

In some instances, the clash of development needs with acute environmental issues results in challenges that even strong ICM planning and legislative processes cannot overcome.



## 3. Lessons learnt from experience

### 3.1 ICM plans

ICM plans appear in different forms. They can be documents labelled “ICM Plan” and developed for just such a purpose, but they can also be land-use planning documents that do not specifically mention the term ICM in their titles or can be climate-change adaptation documents designed for coastal areas. In terms of their substance, it is the objective of integrating sectoral policies with strategic resource management planning over an extended timeframe that makes such documents genuine ICM plans.

### 3.2 ICM plan development process

The literature and case studies that were examined show that the choice of the agency to be tasked with developing an ICM plan (whether it is a project leader funded by bilateral or multilateral assistance, a national agency, local government authority or ad hoc committee specially set up for the purpose, etc.) depends on national and local circumstances. What is important in all instances is that the agency enjoys the legitimacy required for the task. This can be conferred by the government authority that appoints the agency.

Similarly, the various stages prior to ICM plan development depend on the institutional, legal, social and cultural context. Experience has shown, however, that there are generally a few basic stages, namely:

- Recognising that planning is needed, which can be expressed in an official document, such as a law, providing for a plan to be developed or an informal initiative identifying issues that warrant devising a plan.
- Providing an area assessment, highlighting the needs to be addressed by the plan. The assessment requires data to be collected on the area’s environmental health, the main pollution sources, economic and social issues, any user conflicts, etc. It is also crucial at this stage to assess the successes and failures of previous management initiatives, as ICM plan or programme initiators frequently fail to consider the often numerous projects carried out before them.
- Defining the area’s physical boundaries and identifying priority issues to be addressed. Both the literature and field experience show that this stage must follow on from a previously-conducted assessment.
- Ensuring stakeholder participation, which may begin at the assessment stage. The agency must give all the individuals and groups concerned an opportunity to have their say on the issues that need to be addressed and explain how to do so.
- Involving the national and local authorities concerned. This is made easier when the plan initiative is managed by such an authority.

Special care must be taken when defining the ICM plan boundaries. This important stage partly determines the plan’s success or failure. The literature often emphasises the need to go beyond administrative boundaries and define an environmentally-coherent unit. Many authors emphasise this requirement and it therefore warrants some expansion.

Wherever possible, the plan boundaries must be based on the environmental needs to be addressed.



For example, if farming causes pollution and user conflicts in an area, it would be unfortunate if the ICM was unable to govern all the activities involved because it did not cover the whole watershed. The boundaries should, therefore, be sufficiently flexible to address the area's issues and not exclude any that are considered important. This, however, raises the question of whether administrative boundaries should always be ignored. The authors' recommendations must be tempered by practical considerations. In order to effectively influence the way an area is governed, an ICM plan will need to rely on the participation of the relevant national, regional and local authorities, both for developing and implementing it. It is easier to involve the authorities if the boundaries are essentially those of an identified authority's sphere of influence, e.g. a region or province, so that the body can act as the lead agency or, at least, provide vital support in developing and implementing the plan. If the boundaries of a government authority's jurisdiction are completely overruled, the outcome may well be that no government agency will become involved, or that time and resources will be wasted coordinating several of them.

Stakeholder participation in ICM plan development has been recommended for many years now in the literature and is very extensively applied to ICM programmes and plans today. No single form of participation is used and several methods can be observed (e.g. stakeholder groups, public surveys, and scenarios used as discussion aids) at the various stages of the plan development process, depending on national and local circumstances.

### 3.3 ICM plan content

There is no standard or ideal set of ICM plan contents. Plan content depends largely on the assessment conducted during the development phase, when the needs to be addressed and the resources available for implementation are identified. Both academic and grey literature usually recommend, based on experience, that planners avoid an over-ambitious approach and focus on the area's most important issues. Some ICM plans nevertheless adopt a more broad-ranging approach and aim to address all coastal management issues. However, if there are limited human and financial resources available, it is advisable to restrict the plan's content to a small number of issues.

In any case, ICM plans must extend beyond the short-term approach and adopt a medium- to long-term vision of the area's future. Using foresight methodologies may prove particularly useful for this. Such broader timeframes are more conducive to incorporating climate-change adaptation issues into the ICM plan.

It is particularly important for the ICM plan to contain provisions specifying how it is to be implemented. This saves considerable time by making the plan immediately operational. It should identify the action to be taken, the appropriate authorities, a detailed timetable and any anticipated implementation issues. Without these, the plan is very likely to be promptly shelved.

### 3.4 ICM plan governance

To give a plan official status and more legitimacy, the plan should be adopted, or at least recognised, by a national, regional or local government authority. Depending on the status granted to the plan by the government authorities, it may remain a set of recommendations ("soft law") or become legally binding requirements ("hard law"). In the latter case, the plan would be "enforceable", implementation would be mandatory and penalties may be provided for in the event of a breach of the rules. However, whether or not an ICM plan is actually implemented as soon as it becomes legally binding depends in practice on the arrangements made for enforcing its provisions. There are many examples of mandatory requirements never being enforced because of inadequate resources for implementing them. Recommendations with an action plan, which identifies the responsible authorities and provides a detailed timetable, may lead to action. In some circumstances, this can ensure that even ICM plans with an informal status can be effective.



Legal status affects how ICM plans fit in with other national and local instruments. If the plan is an informal initiative with no official endorsement, it is governed by an agreement between the stakeholders and, as such, does not amend or replace area-planning rules. Such rules can continue being applied regardless of the plan. Experience shows that in such cases the plan's impact will be nil or, at best, minimal. If the authorities do adopt it as a set of recommendations, implementation and interaction with existing instruments will depend on the goodwill of the authorities concerned. If, however, an ICM plan is adopted as a legally binding document, its provisions can, depending on circumstances, override pre-existing area-planning instruments and require them to be amended. This would apply, for example, if provision is made for an ICM plan developed at the regional or provincial level to take precedence over local town-planning documents.

As ICM plans seek to govern various sectors of activity and coordinate the involvement of several stakeholders, implementation will depend on many, mainly government, authorities. It is advisable to task one or more specific stakeholders with monitoring the implementation.

ICM is a dynamic, ongoing, iterative process. In order to be effective, an ICM plan must be evaluated and updated regularly.

### 3.5 Conclusion

The literature and case-study review shows that ICM plans vary considerably in terms of development process, content and governance arrangements. There is, therefore, no single standard ICM plan. Rather, ICM plans should be tailored to the local context. That is why it is neither advisable nor possible to advance rigid recommendations on how to develop and implement ICM plans, or even identify factors that will guarantee their success. For example, a plan that seeks to address a very large number of issues may succeed in one set of circumstances, but fail in another. Similarly, a plan that has informal-initiative status (no official endorsement) could either succeed or fail in terms of impact on the way an area is managed, depending on the circumstances. Ultimately, everything depends on the context of each plan. Based on the statements made in the literature and case studies reviewed, however, some advice can be offered on the “dos and don'ts” at the various stages of preparing ICM plans, as outlined in the table below.

**Table 3. Dos and don'ts at the various stages of preparing ICM plans**

		Don't	Do
<b>Plan Development Process</b>	Start the plan development process based on an incomplete view of the issues to be addressed. Ignore the successes and failures of past planning experiences.	Conduct an area assessment highlighting the needs the plan should address.	
	Define the plan area boundaries based on purely environmental considerations.	Define the plan area based on both environmental considerations and administrative boundaries.	
	View stakeholder participation as a mere stage in a procedure.	Ensure the stakeholders participate effectively at the various stages of the plan's development.	
	Keep the plan a private initiative. Adopt a short-term approach.	Involve the appropriate government authorities. Extend the timeframe to define the area's medium- and long-term future. Incorporate climate-change adaptation issues into the plan.	
<b>Plan Content</b>	Greatly restrict or widen the scope of the issues the plan should address. Fail to anticipate the plan's implementation issues.	Adjust the plan's objectives to the needs identified during the assessment and the resources available for implementing it. Include provisions in the plan for implementing it (actions required, relevant authorities, timetable, etc.)	
	Ignore plan status issues. Leave the plan to take care of itself.	Assess whether it is advisable to grant legal status to the plan or leave it as an informal initiative. Appoint one or more stakeholders specifically tasked with monitoring plan implementation.	
<b>Plan Governance</b>	Think the task is over once the plan has been adopted.	Make provisions for assessing and updating the plan regularly.	



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