

Integration as a Significance Factor in Effective Coastal Management: Egypt as a Case Study

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Abstract In the last two decades, integration and collaboration have become common themes in coastal management. They are advocated for their holistic approach that considers management outcomes rather than narrow jurisdictions of individual issues. Being more specific; Integrated Coastal Zone Management (ICZM) is a complex process with various issues to be covered and requiring a network of agencies and policies to be integrated. Furthermore, ICZM as a tool of effective planning and management encompasses different dimensions. Simultaneously, the integration should be territorial (comprising a delimited space), and temporal (long-term oriented), as well as being horizontal (cross-sectoral) and vertical (involving various administrative bodies) Hence, Multi-dimensional integration is essential for ICZM to succeed. However, achieving effective integration in coastal management is always difficult, especially in developing countries. Egypt provides an excellent case study of this experience. Since the mid-1990s several attempts have been made to promote ICZM in Egypt, although none have, as yet, achieved their goal of having an ICZM plan in operation.

This paper reviews ICZM process in Egypt focussing on discussing the integration between all actors to plan and implement ICZM based on interviews with key ICZM actors as well as documentary analysis and participant observation in ICZM meetings. It seeks through a critical evaluation to provide recommendations that could help to enhance the implementation of ICZM in Egypt and other developing countries.

Keywords Integrated Coastal Zone Management (ICZM); Integration; Developing countries; Egypt

Introduction

This paper reviews ICZM initiatives in Egypt focussing on discussing the integration. It seeks through a critical evaluation to provide some practical recommendations that could help to enhance the implementation of ICZM in Egypt and other developing countries. Therefore the paper is divided into four sections. First section develops a conceptual analytical framework based on the integration in ICZM. Then a brief overview of ICZM initiatives at both the national and local in Egypt is provided. The third section reviews ICZM process in Egypt focussing on discussing the integration. The data for this analysis is drawn from a detailed evaluation of all the projects and involved a critical examination of secondary data in the form of minutes of meetings and documentary reviews combined with primary data, including participant observation of recent coastal management meetings and detailed semi-structured interviews with 30 different participants involved in the processes. Finally

some practical recommendations that could help to enhance the implementation of ICZM are provided.

1 Developing a conceptual framework

In this section, the nature of integration in ICZM is displayed as the networking means in order to understand how various actors are involved in ICZM. The work in this section aims to answer this question: How can the interaction between actors in the network affect the initiating and processing of ICZM? Thus, the section is divided into five subsections: The first defines the integration. The second teases out the importance of integration to coastal management. The next subsection defines the dimensions of integration. Then, the integration mechanisms are demonstrated. Finally, the synopsis of this section shows how the integration will be evaluated in the case study.

1.1 Integration context

There is an agreement among scientists, resource managers and policy makers that an integrated

approach to the management of coastal zones holds the greatest promise for restoring marine ecosystems and ensuring the long term delivery of their goods and services for humans. Margerum (2001) highlights that a variety of terms are used to promote this concept, including Integrated Environmental Management, Integrated Watershed Management, Collaborative Planning, Integrated Coastal Zone Management, Ecosystem Management and Integrated Resource Management.

The term Integration has been a part of coastal management discussion since the UNEP Regional Seas Program was launched in 1975. Further to this, the term integrated was added internationally to coastal management through policy instruments such as the Jakarta Mandate to the Convention on Biological Diversity in the 1980s and Agenda 21 in 1992 when it became clear that the effective management of coastal areas required a cross-sectoral approach (Nichols, 1999, Atkins, 2004, Humphrey and Burbridge, 2003).

Clearly, Integrated Coastal Management promotes a holistic view that requires looking at the full range of activities and programmes that affect a system or region, and developing strategies for managing critical components and interrelationships within that system. To be more specific, integration is: *'to unify or to put parts together into a whole'* (Cicin-Sain and Belfiore, 2005, p855). Furthermore, Bower and Kerry Turner (1998, p65) define integration in ICZM as *'including integration across broad policy objectives and plans, with different sectoral plans and management, with different levels of government and with the public and private sectors'*. In a word, integration in coastal management is what distinguishes the endeavour from traditional sectoral management. Success depends on coordination of effort and effective inter-organizational linkages for multiple use management.

As to the matter of integration, Lau (2005) argues that there are two stages in integration. The first one is internal integration, which means *'aligning all government units with a direct coastal zone responsibility at a national, regional, or local level'* (Lau, 2005, p129). The second stage is external integration: It aims at *'an integration of other government departments (industry, transportation,*

housing, urbanization, education, and tourism) in addition to users and interest groups each with its own specific goals' (Lau, 2005, p129).

In conclusion, the major purpose of integration in coastal management is to coordinate the initiatives of various agencies, private economic sectors, and communities towards the best long-term socio-economic outcomes (Clark, 1997). Management is integrated not only when all components are included in a single framework but, also, when potential and expected factors are considered in practice (Kosiek et al., 2003). To put it more simply, the basic philosophy of the integration approach is that managers must address the range of physical, ecological, social and economic interconnections and produce a strategic approach to management. Therefore, the key operational component to achieving integration is interaction throughout a process of planned change. Interaction between stakeholders representing interest groups, government bodies and individuals must occur at every stage, from the scoping process to strategy or plan development to implementation phases. So integration is essential for ICZM to succeed.

1.2 The importance of integration

In a general sense, integration addresses the inter-relationships or inter-dependence between issues and sectors, and between environment and economic development. For instance, the complex overlay of issues and institutions along coastlines makes it impossible for a single agency to meet the challenges of management alone. A holistic view of the problem requires a wide variety of stakeholders contributing their perspective to a problem. Furthermore, multiple perspectives are important for identifying goals and the most critical issues that should be addressed. Sufficient variety in the information gathered is needed to match the complexity inherent in the problem itself (Margerum and Born, 1995, Tobey and Volk, 2002, van Kerkhoff, 2005, Ehler et al., 1997).

In the same way, Lane (2006) asserts that integration is essential to coastal management for three reasons:

- The coast is a space where multiple environments (marine, terrestrial, estuarine) interact;
- The coastal areas must be managed for multiple uses;
- Multiple claimants and actors across government, civil society and the market are involved in coastal governance.

Likewise, Olsen et al. (1999) argue that integration is a fundamental element in coastal management. It involves breaking down sectoral barriers by getting agencies to recognize their impact on other sectors, communities and the environment. Increased coordination among government agencies, and with outside organizations, involves a combination of amending mandates to coastal management objectives and offers incentives to influence institutional behaviour. In addition, achieving ICZM is based on the many dimensions of integration that need to be addressed (Olsen et al., 1997). Again, Bower and Kerry Turner (1998) support the view that an integrated approach to coastal zone planning and management is necessary in order to produce effectively, efficiently and equitably distribution of the benefits of ICZM. Furthermore, Clark (1997) and Jennings and Lockie (2003) argue that the repetitive theme of ICZM is integration, without which the programme will fail. In the same way, Courtney and White (2000) argue that the key lesson generated by the government of the Philippines coastal management projects is that it is extremely difficult to plan and implement successful ICZM programmes without a multi-sectoral approach and collaborative planning.

Therefore, overcoming the policy and functional fragmentation and overlaps between functions that occur in the governance of coastal areas is a central goal of ICZM. Furthermore, the preliminary step towards sustainable coastal management is to develop management plans for integrated coastal systems.

1.3 Dimensions of integration

The notion of 'integration' is often used indiscriminately. However, in the present context, integration is considered in many of the guidance and lessons-learned documents based around six dimensions (see for example Clark, 1997, Ehler et al., 1997, Linkov et al., 2006, Pedersen et al., 2005, Belfiore et al., 2003, McGlashan, 2002, McGlashan, 2000, Kosiek et al., 2003, Cicin-Sain and Belfiore, 2005, Belfiore et al., 2006, Tobey and Volk, 2002). Namely:

Integration of policies and programmes across and among sectors of the economy (e.g. economic development, transportation, recreation and agriculture).

'Policy integration' is a fundamental element of ICZM. It involves breaking down sectoral barriers by getting agencies to recognize their impact on other sectors, communities and the environment. Increased coordination among government agencies and with outside organizations involves a combination of amending mandates to coastal management objectives and offering incentives to influence institutional behaviour.

Vertical integration (intergovernmental integration): integration among agencies involved in coastal management at all levels of government i.e. bringing together several levels of government from national to regional and local.

Horizontal integration (inter-sectoral integration): in other words, bringing together agencies and groups from different sectors involved in the planning and management, such as agriculture, irrigation, fisheries, tourism, conservation, etc.

Integration between public- and private-sector management activities.

Spatial integration: integration between management actions that affect the land and water environments of coastal areas. To put it more simply, bringing together management issues concerning the land side of the coastal zone (including up-river issues related to watersheds and river basins) and issues related to the ocean side.

Integration among the disciplines of coastal management, including ecology, economics, engineering and political science to secure comprehensive and multidisciplinary analysis and reflection. In other words, applying practical knowledge from the natural and social sciences to managerial decisions about the oceans and coasts.

To sum up, integration has different dimensions which need a clear mechanism to tackle the fragmentation between the various actors and dimensions.

1.4 Integration mechanisms

Fragmentation and shared responsibilities among ministries are realities likely to prevail. However, the integration in coastal management is what distinguishes the endeavour from traditional management. Success depends on co-ordination of efforts and effective

inter-organizational linkages for multiple use management. Many ICZM experts write about how integration could be achieved, for example Brochier and Giupponi (2001) emphasize that the establishment of a steering committee with representatives of different interests is required to guide and coordinate the ICZM process. Furthermore, Pedersen et al. (2005) support the view that a key element in the implementation strategy of the ICZM project has been to carry out the work through the establishment of structure (e.g. Forum or Task Force) based on members from key agencies. The members of the forum should be chosen after a stakeholder analysis. Belfiore et al.(2006) and Jennings and Lockie (2003) highlight that the aim of the stakeholder analysis is to identify all organizations and individuals who have:

- Management responsibilities;
- Power to influence the decision-making process; and
- Role to implement the decisions.

Pedersen et al. (2005) also stress that if key stakeholders are not involved in the ICZM programme, they may block the implementation of decisions. So, the cross-sectoral participation is seen as a mean of contributing to the establishment of coastal zone management networks among stakeholders and ensures their involvement in the ICZM process. In the same way, Barker (2005) argues that to achieve integration in coastal management, any forum must take a participatory and inclusive approach and tend to follow a systematic process towards collaboration. For instance, the coastal forum should be built on the 'consensual planning approach', whereby drafts of proposals and plans are available for comment before publication, which allows for the views from the top and bottom of the decision-making process as well as the stakeholders to be included (McGlashan, 2002).

In addition, Sekhar (2005) argues that the mechanisms to achieve integration must recognize that all economic, physical and social systems are interconnected. Collaborative management and planning are therefore the key elements of a future integrated coastal management plan (Rutherford et al., 2005).

In fact, several institutional approaches are possible to achieve integration in coastal management. The World

Bank (1996) identified several inter-agency coordinating mechanisms including:

- A national planning agency;
- Formal establishment of an inter-agency or inter-ministerial council;
- Creation of a special coordinating commission or committee; and
- Formal designation of one of the line agencies or ministries to act as 'lead agency' and to oversee an interagency coordination process.

For example, Foster and Haward (2003) have recognized a number of key approaches for enhanced integration which have been implemented in Australia's Oceans Policy, such as:

- Establishing a National Coastal Advisory Committee to advise the Minister in charge of coastal zones on relevant issues;
- Establishing a Coastal Coordinating Committee (for horizontal integration);
- Establishing an Intergovernmental Technical Committee (for vertical integration);
- Introducing public awareness programmes as part of the Coastal Action Plan initiative to promote better communication; and
- Creating coast-net, an electronic communications network designed to facilitate exchange of information between researchers and managers.

Moreover, Cummins, Mahony and Connolly(2004) have highlighted that the network approach is the key to the success in implementing ICZM rather than a sectoral approach. So, establishing a coastal network provides opportunities for networking to keep up to date with coastal issues and progress with the ICZM. In addition, establishment of coastal zone management networks among stakeholders ensures their involvement in the ICZM process (Pedersen et al., 2005).

Finally, by reviewing the many documents that offer guidance on how to enhance integration in coastal management; it could be concluded that there are many

ways to achieve integration between governance levels and between all stakeholders in any coastal programme. All nations need to make their own choices based on their particular socio-political and governance structures and traditions, and the issues upon which the coastal programme needs to focus. The suggested integration mechanism should focus on:

- Promoting and strengthening inter-agency and inter-sectoral collaboration;
- Reducing inter-agency competition and conflicts;
- Minimizing duplication of functions of government departments; and,
- Providing a form for conflict resolution among stakeholders.

1.5 Synopsis

This section was designed to understand the nature of integration in ICZM in order to understand how various actors are involved with ICZM.

For instance, the review of literature argues that ICZM affects many different sectors of society and involves many different scientific disciplines. Consequently, ICZM requires an integrated approach in order to overcome the policy and functional fragmentation and overlap that can occur in the governance of coastal areas. So, integration is a fundamental element in ICZM. In addition, achieving ICZM is based on the many dimensions of integration that need to be addressed. For instance, achieving the integrated management of coasts is, to a substantial degree, a matter of governance. That is, achieving ICZM is a matter of the structures and processes which govern the behaviour of the state organizations, private sector corporations, civil society and citizens, who are active in, and utilize, the resources of the coastal zone. In this sense, integration is the task of arranging and organizing these actors, establishing incentives and parameters for their behaviour, and creating circumstances for collaboration (Lane, 2006).

In order to explore/examine *'to what extents has the integration been achieved among the actors of ICZM in the case study?'* this research will investigate the ICZM initiatives based on the following questions:

- Have the integrating dimensions been recognized in ICZM initiatives?
- Do all the participating stakeholders in all levels collaborate with each other?
- Which integration mechanisms have been used in order to implement ICZM?
- Are they effective?

2 Egypt Overview

This section gives an overview on the Egypt's marine environment and coastal zones. Egypt enjoys a vital strategic location between three continents. This gives it a special significance from the point of view of biodiversity. The coastal zones are sensitive and diverse ecosystems (Abul-Azm et al., 2003). The Egyptian coastline extends 3,500 kilometers along the Mediterranean Sea and Red Sea in addition to the Suez and Aqaba gulfs. The coastlines of Egypt are rich with ecosystems such as coral reefs, mangroves, sand dunes, sea grass beds, estuaries and coastal forests. Coral reefs are associated with a high diversity of assemblages of fish. However, at the same time the coast of Egypt is one of the most densely populated in the MENA region (EEAA, 2007).

Although the Egyptian coastal areas have attracted wide variety of the economic activities, most of them require especial protection due to their internationally recognized biodiversity. Indeed, the marine environment and coastal zones in Egypt are under intensive pressure from industrial, agricultural, tourism, and urban development. This has caused water pollution, huge deterioration of their natural resources, and increased shoreline erosion. For instant, oil spills in the Gulf of Suez and the Red Sea have become a major environmental concern in this region (EEAA, 2007).

2.1 Egypt's coastal management initiatives

Recognizing the growing development pressure and the growing awareness of environmental quality combined with the external pressure from donors and international agencies have led Egypt to take some initiatives designed towards introducing coastal zone management. These efforts were designed to promote ICZM. Subsequently, several attempts have been made

to promote ICZM in Egypt since the mid 1990s (see Table 1). However, none of these efforts has achieved its goal of ICZM plan in operation yet (Ibrahim, 2013). ICZM initiatives in Egypt can be divided into

two phases. The first one started in 1995 with the setting up of the National Committee for ICZM (NCICZM), which led to the preparation of a national ICZM framework and the development of two

Table 1 Egypt's ICZM initiatives

Egypt's ICZM initiatives			Time line	
ICZM first phase initiatives	From 1995 to 2005	National Level	Setting up the National Committee for ICZM (NCICZM) Prepared a national ICZM framework	Setup in 1995 Stop working in 2001 Prepared 1996
		Local Level	FUKA-Matrouh Coastal Area Management Programme (CAMP) Red Sea Coastal and Marine Resource Management programme (RSCMRMP)	Started in 1993 Completed in 1999 Started in 1994 Completed 2002
	From 2005 until present	National Level	Re-establishing the NCICZM The new environmental regulations (Law 9/2009) Preparing the National ICZM Strategy for Egypt	Re-established 2007 Enacted 2009 Started 2008 Not yet completed
ICZM second phase initiatives		Local Level	Alexandria Lake Maryut Integrated Management (ALAMIM) Plan of action for an ICZM in the area of Port Said Integrated Coastal Zone Management between Matrouh and El Sallum (MSICZMP)	Started in 2006 Completed in 2009 Started in 2006 Completed in 2009 Started in 2006 Completed in 2010

local projects. This phase lasted until 2001, when largely because of a lack of international donor funding, combined with inactivity within the NCICZM, the experiment ceased to be active (DAME, 2004). The second phase started in 2005 following an amendment of the national environmental regulations. This enhanced the power of the Egyptian Environmental Affairs Agency (EEAA) by giving it the power to approve or refuse any new, or extension to projects in the coastal zone based upon the results of a required EIA. About the same time, three new local ICZM projects were started, supported by international donor agencies actively promoting sounder and more sustainable development of Egypt's Mediterranean Coastal Zone which was under intense environmental pressure. In 2007 the EEAA took a lead in trying to re-establish the NCICZM and started in 2008 to prepare national ICZM strategy to provide a framework for local action.

2.2 Evaluating ICZM initiatives in Egypt

It is clear from best practice in ICZM that integration in all dimensions is essential for effective ICZM policy and practice (Jennings and Lockie, 2003,

Courtney and White, 2000). This section evaluates the integration in ICZM initiatives based on answering the following questions: Have the integrating dimensions been recognized in ICZM initiatives? Do all the participating stakeholders at all levels collaborate with each other? Which integration mechanisms have been used in order to implement ICZM? Are they effective?

ICZM in Egypt suffers from a lack of integration in all of its dimensions. For instance, one of the interviewees claimed that *"coordination between agencies in Egypt in the field of coastal management is still ad hoc and based on no clear system"*. In this regard, the World Bank (2005) highlights that the motives for cooperation and integration in coastal management are very low. In the same way, one of the interviewees noted that *"Poor coordination among government departments and weak integrated management capacity has greatly hampered the management and development of the coastal zone"*.

Nawar and Kashef (2007) emphasize the fact that there is a lack of adequate coordination between stakeholders that hinders integration between horizontal levels. For example, the Shore Protection

Authority (SPA) without coordinating with any other actor in coastal management and focusing only on the construction of coastal protection structures, has prepared a shoreline management plan for many parts of the Mediterranean Sea (SPA, 2008). In this regard, one of the interviewees highlighted that *“The SPA implements many projects on the Mediterranean coast to protect the shore from erosion without any coordination with the EEAA or any other agency”*. In the same way, another interviewee who is working in one of the EEAA Regional Branch Offices RBOs commented that *“we have no idea about the SPA plans for coastal protection, we have not been invited to participate in preparing these plans and we have not been informed about the proposed plans regarding our coastal zone”*.

The Port Said project illustrates another example of lack of horizontal integration in Egypt. According to the project documents and interviews with its key actors; although both of the Central Directorate of Irrigation Advisory Service (IAS) and the SPA are affiliated to the same ministry of Water Resources and Irrigation, the former was one of the main partners of the project and the latter had no idea about the project. Nevertheless the SPA started to prepare a shoreline management plan for the Port Said coastal zone independently from this ICZM project (Tahoun, 2007; IAS, 2008).

Moreover, Egypt also lacks integration between the disciplines of coastal management. This can be illustrated through the gap in cooperation between decision makers and environmentalists regarding the government efforts to further expand and develop tourism in Egypt (Ibrahim, 2009). In particular, the government offers tourism business activities a 5-year tax exemption on all profits accrued during that period. This can potentially contradict efforts to control existing coastal damage, considering that hotel and resort construction is a significant contributor to coastal and coral degradation (Sherbiny et al., 2006). In other words, the financial incentives used to promote tourism growth and development contradicts the less successful command-and-control methods used to address environmental sustainability.

Further to this, the ICZM in Egypt also lacks policy integration. For example, by reviewing the Port Said

project documents it was clear that the project had not integrated any other policies or plans, as it was concentrating on irrigation and agriculture. To be more specific, although Port Said offers considerable potentials and capabilities for tourism development in terms of physical, environmental, natural, historical and cultural resources, the project has not dealt with these potentials at all and has concentrated on irrigation management and agriculture (AbdelWahab, 2009). In fact, the General Organization for Physical Planning (GOPP) prepared a strategy for the same area concentrating on tourism development in Port Said and aimed to utilize its capabilities and potentials in supporting and accelerating tourism development for Port Said. However, this has not even been acknowledged by the Port Said ICZM project neither has the GOPP been involved in the ICZM project (GOPP, 2008). Moreover, a number of decisions were taken by the central government to change the character of Port Said from a mere commercial avenue to a comprehensive development region, e.g. by allocating an industrial zone on the outskirts of the city of Port Said and making use of the unique location of Port Said in promoting a new port for container traffic through the project of Sharq El Tafria (Elshinnawy, 2009). However, Port Said ICZM project has neither recognized these projects nor their effects on the ICZM plan (El-Quosy, 2009). The project has emphasized the development of water irrigation and agricultural sectors due to the partners limited experience in other sectors and a lack of integration with other stakeholders. Above all, the project has not acknowledged the potential impacts of climate change, especially sea level rise, in the project area, although the most optimistic scenario expected that rises in sea level in the Port Said area will affect 210km² (15% of the governorate area) (Elshinnawy, 2009, El-Raey, 2004).

Furthermore, vertical integration is also completely lacking in coastal management. For instance, one of the interviewees asserted: *“there is neither communication nor integration between the Environmental Management Unit (EMU) and the RBO as each of them is affiliated to a different ministry”*. In the same way, another interviewee stressed: *“there is a great overlap between the EMU and RBO mandates and there is lack of coordination between both of them”*. More emphasis and further details were given by

another interviewee, as he stated that: *“There are many overlaps between our work in the EMU and the RBO work. There is no coordination between us e.g. both of us taking samples from the lakes and analysing the pollution levels. Furthermore, we have almost the same monitoring mandates”*. Moreover, there is a lack of vertical integration between the central EEAA and the RBOs. In particular, one of the interviewees suggested: *“in our RBO we have no idea about the ICZM national strategy which you said is now in progress”*. Indeed, nobody from the coastal RBOs attended any of the three workshops for preparing the ICZM strategy (EEAA, 2009a; EEAA, 2009c; EEAA, 2009b).

Furthermore, spatial integration is missing in Egyptian coastal management. In particular, most of the local ICZM projects in Egypt concentrated on the land resources and land based pollution, however in some cases this concentration was overstressed to a degree that neglected the sea itself. For example, the Port Said project concentrated on land development, especially water irrigation and agriculture, without considering many issues related to the sea such as sea level rise, tourism development and the new container traffic port (El-Quosy, 2009, IAS, 2008, Tahoun, 2007). In addition, the Port Said project area was part of three governorates (Port-Said, Sharkia and Dakahlia) where administrative boundaries are completely separate and there is no integration between these governorates. In fact, this led the partners to concentrate only on one governorate (Port Said) and exclude the other governorates from project activity (AbdelWahab, 2009, IAS, 2008, SMAP, 2008).

The previous illustrated examples reinforce the idea that Egypt is suffering from a lack of integration across all dimensions. In this respect, El-Ghorab (2005) emphasizes that one of the main challenges facing ICZM implementation is the lack of integration between different governmental agencies that are responsible for developing and managing coastal zones. In the same way, one of the interviewees noted that: *“There is a lack of coordination between various kinds of institutions (governmental, non-governmental and private sector) which are working on, interested in, or affected by coastal areas”*. Another interviewee stressed that: *“Traditionally, each department’s goals conflict with others and it becomes difficult for them*

to participate in an integrated management approach, unless there is a change in attitude”. Furthermore, another interviewee, who reflected the views of several others, highlighted the fact that: *“The mechanisms for coordination with the EEAA and with each other are unclear”*.

In this regard, the World Bank (2005) highlights that there seems to be a disconnection between environmental priorities and development priorities, and furthermore the issue of coastal zone management remains one of the most pressing environmental inter-sectoral problems in Egypt. Furthermore, the coordinated actions in coastal management between economic, sectoral ministries and local government are irregular. In fact, the problem is due not only to lack of coordination between departments, but also to a lack of vertical integration between organizations. In particular, one of the interviewees noted that: *“The challenge of achieving integration lies in the fact that different levels of government typically do not work together”*. Furthermore, there is often absence of any coordinating mechanisms to derive collective and integrated approaches to coastal management and there are often constraints due to overlapping, competition, and gaps in horizontal and vertical communication (González-Riancho et al., 2009). By this is meant that there is no clear system to coordinate the stakeholders or to integrate their policies (Ibrahim & Hegazy, 2011).

In this regard, one of the interviewees stressed that: *“If we need to apply ICZM in Egypt we need coordination bodies at all levels that are well-linked as a network. Otherwise all our efforts will be in vain”*. Another interviewee argued that: *“The need is urgent to establish a mechanism to coordinate, communicate, disseminate and harmonize the present national and local coastal activities”*. Indeed, the participants in the first workshop for preparing the national ICZM strategy agreed that Egypt was, and still is, suffering from a lack of any kind of network to help achieve the integration and coordination between the stakeholders at national, regional and local levels (EEAA, 2009c). Regrettably, there is no evidence that the proposed strategy finds a solution to this issue (EEAA, 2009b). In this regard, one of the interviewee illustrated the views of the others, by commenting that: *“Although there is a significant need to create a clear mechanism*

to achieve integration at all levels among all kinds of institutions which are working on coastal activities, the proposed national strategy has not developed any scheme to address this issue”.

The previous argument regarding the integration in coastal management in Egypt strongly raises these questions: What mechanisms have been used in the ICZM initiatives in both phases to tackle these problems? And are they effective?

In 1996, the EEAA established the NCICZM, which set out to achieve horizontal integration between ministries by bringing all of the concerned ministries together. However, the committee has not practiced its mandates and has been inactive (El-Ghorab, 2005, World Bank, 2005). In this regard, one of the interviewees commented that: *“the NCICZM has been inactive for several years which mean that policy dialogue and consistency analysis between governmental stakeholders with different visions on the use of coastal areas had also been reduced or disappeared”.*

In the ICZM second phase, the EEAA re-established the NCICZM at the end of 2007 as a first step in applying for funding from PAP/RAC to prepare the national ICZM strategy. However, many of the participants in the first workshop for preparing the national ICZM claimed that the NCICZM cannot fulfill its intended function without having a technical sub-committee which would include experts and managers from all the agencies working and helping the NCICZM to perform its role (EEAA, 2009c). Furthermore, Ibrahim (2009) argues that, in most cases, representatives in the NCICZM are not authorized to take decisions and they do not report progress to higher levels which makes participation ineffective. In this regard, one of the interviewees suggested that: *“The top ranked employees who are members of the NCICZM in most cases could not attend the meetings of the committee. Instead they sent their assistants to attend which affected the decision-making process of the committee”.* A review of the attendance list of the three workshops for preparing the national ICZM confirms this interviewee’s observation. Table 2 shows the members of the NCICZM who should attend the workshops and the real attendance list of the three workshops. For

example, the head of the Tourism Development Authority (TDA) did not attend and sent the environmental sector manager instead; similarly, the EEAA Executive Director did not attend and sent the head of the coastal and marine zones management department instead (EEAA, 2009a, EEAA, 2009c, EEAA, 2009b). Such circumstance gives the impression that the committee is not powered by the key actors and the use of assistants means that decisions are difficult to make. Therefore, the committee is still not able to fulfil its intended function.

Based on the above, it clearly seems that the first phase of ICZM in Egypt had no effective integration mechanisms at the national level. Furthermore, although Egypt has the NCICZM in the second phase, it seems to be an ineffective integration mechanism.

Although the three workshops for preparing the national ICZM strategy concluded that each coastal governorate should prepare its own ICZM plan, there was neither discussion nor recommendations on how these plans should be prepared and how they would be integrated with each other (EEAA, 2009a, EEAA, 2009c, EEAA, 2009b).

Reviewing the local ICZM projects in both phases of ICZM highlights that although there were two local ICZM projects in the first phase, they did not establish any coordinating body to continue to implement and follow up these projects (El-Raey, 1999, GEF, 2002). For instance, one of the main problems that faced the CAMP and RSCMRM from the beginning was the lack of integration of policies among the various bodies in charge of different sectors or geographic segments of the coast (El-Raey, 1999, World Bank, 2002, World Bank, 2003). Moreover, there is no evidence that the CAMP project team developed any mechanism to enhance integration throughout the process of the project or afterwards (Tortell, 2004). Furthermore, although the RSCMRM established a local forum who met frequently, on a monthly basis during the project preparation, once the project was finished, the forum became inactive (World Bank, 2002, World Bank, 2005).

Further to this, two of the second phase local ICZM projects have not established any coordinating body to continue to implement and follow up these projects. In

the Port Said project, two local partners carried out the project activities without the participation of the local stakeholders (AbdelWahab, 2009, IAS, 2008). Likewise, the MSICZM carried out its first phase depending on its two partners without any

participation from local stakeholders (IH Cantabria, 2007). In this respect, one of the interviewees argued: *“Local ICZM initiatives in Egypt are still accomplished on a project-based manner. When the project finishes the preparation of its reports all its*

Table 2 The NCICZM Ministries and Organizations Representatives in the three workshops

Ministries/National Institutions	Title / position should attend	The real attendance list of the three workshops
EEAA	Executive Director	Head of the Coastal and Marine Zones Management department
Ministry of Agriculture- General Authority for Fish Resources Development	Head	General Director of Aquaculture and Lakes
Ministry of Agriculture- Agriculture research centre	Head Agriculture research centre	Deputy of Land Use, Water and Environment Research Institute
Ministry of Water Resources and Irrigation, SPA	Head of SPA	Head of SPA
Ministry of Water Resources and Irrigation, Shore Research Institute	Head	General Director of Research and Studies
Ministry Transportation	Head of the naval transportation sector	General Director of Safety & Environment, and
Authority of Harbours and Lighthouses	Head Authority of Harbours and Lighthouses	General Director of Environmental Affairs
Ministry of State for Scientific Research, National Institute of Oceanography and fishery	Head National Institute of Oceanography and fishery	Head National Institute of Oceanography and fishery
Ministry of State for Scientific Research, National Authority for Remote Sensing and Space Sciences (NARSS)	Head National Authority for Remote Sensing and Space Sciences (NARSS)	Head of Agricultural Application Department
General Organization for Physical Planning (GOPP), Ministry of Housing, Utilities and New Urban Communities	Head	Vice President of General Organization for Physical Planning
Ministry of Tourism - Tourism Development Authority (TDA)	Head of the TDA	General Director of Environment
Ministry of Defence	Chief of Naval Staff	Vice Chief of Naval Staff
Ministry of Planning	Head of the Health, Social and Presidential Service Sector	Member
Egyptian General Petroleum Corporation EGPC, Ministry of Petroleum	Vice-Chairman	Manager of Environmental Protection and Industrial Safety
Business private sector	Representative to be selected by the EEAA Executive Director	N/A
National ICZM expert	To be selected by the EEAA Executive Director	Environmental Consultant
NGOs	To be selected by the EEAA Executive Director	N/A
EEAA, the Coastal and Marine Zones Management department	Head	Head of the Coastal and Marine Zones Management department

Note: Source: (EEAA, 2009a, EEAA, 2009c, EEAA, 2009b)

activity stops and there is no mechanism for coordination or follow up of the project's final plans”.

On the other hand, the ALAMIM provided a good example by having a clear integration mechanism. To

be more specific, throughout the project preparation there were two main coordinators of project activities. Firstly, the general coordinator, MEDCITIES, which was the main entity contracted by the European Commission who in turn signed individual contracts with the rest of the project partners (Marfà, 2008). It coordinated the overall activities of the project, provided technical support and was responsible for the organization and implementation of the activities that were carried out in Europe. Secondly, the Egyptian coordinator, CEDARE, who acted as the coordinator of the activities in Egypt, and was responsible for the implementation of the various project activities in Alexandria in coordination with MEDCITIES and the project partners (ALAMIM Team, 2007, CEDARE, 2007). Furthermore, the project was based on two studies - a Stakeholder Analysis and a Stocktaking Analysis, it proposed creating an integrated management unit at the governorate level and empowering it, with trained staff and efficient management tools, to become the core future integration authority, if and when it is established (Marfà, 2008, El-Refaie and Ragué, 2009). In this respect one interviewee, reflecting the opinion of many others, claimed that *“Through the ALAMIM project almost all the Lake stakeholders integrated together through the frequently meetings which were coordinated by CEDARE and MEDCITIES. Thus the stakeholders reached collectively to propose an integrated management unit to manage the Lake and to follow up on the project’s final plans”*.

To conclude, the absence of any clear mechanism for coordination between all concerned parties makes effective ICZM unachievable and efforts towards integration are often left to the goodwill of involved agencies and stakeholders. Moreover, *it seems that Egypt has embarked on the ICZM second phase initiatives without considering the lessons from the first phase. Indeed, the absence of an ICZM policy or strategy at national and regional levels is still one of the main problems facing the implementation of local ICZM projects. Besides, most of the ICZM local projects in both phases failed to create local networks that could enhance the integration between stakeholders and ensure sustainability of the ICZM plan.*

3 Conclusion

The review of ICZM initiatives in Egypt highlighted *Lack of integration*: Egypt is suffering from lack of integration in the field of coastal management in all dimensions. The reason for this was referred to the absence of effective integration mechanism among all concerned parties at any level. Furthermore, most of the ICZM local projects, in both phases, failed to create local networks that could enhance integration among stakeholders and to ensure that the proposed ICZM plans could be implemented in a sustainable manner.

Based on the previous evaluation for the Egyptian ICZM initiatives some recommendations could be developed in order to enhance the ICZM implementation:

- Egypt needs to establish an ICZM coordinating bodies at all levels of governance.
- At the national level: the creation of a technical sub-committee, which would include experts and managers from all the concerned coastal stakeholders, could work to help the NCICZM to perform its role.
- Relevant stakeholders should be defined through an appropriate stakeholder analysis.
- All ICZM proposals should be prioritized by the coordinating bodies, which should have a supervisory role over all coastal projects, on all levels.
- There is a need for effectively involvement of local communities, NGOs, politicians, people from the media, and judiciary in the ICZM process. This will enhance and raise the awareness about coastal management issues.

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