

## **The concept of integrated national maritime policy and its application to Saudi Arabia**

### **Abstract**

Because marine governance in most countries is sectoral, maritime policies are frequently fragmented and sometimes even contradictory, resulting in marine resources being inefficiently used and poorly protected. To avoid these problems by harmonizing the different maritime sector policies, the concept of integrated national maritime policy (INMP) has been developed. INMP has been introduced or is being considered for introduction in more than 30 countries, and this article investigates its main features and applies it to the case of Saudi Arabia. Based on extensive fieldwork carried out in the Kingdom – including interviews with officials in government departments with maritime responsibilities, and a survey administered to 230 stakeholders – the article examines the arguments for introducing an INMP into the country; the obstacles to its introduction; and ways of overcoming those obstacles.

### **1. Introduction**

The maritime policy of most states is currently divided between many different sectors, including security and safety, shipping, trade, transport, energy, telecommunications, oil and mineral extraction, fisheries, environmental protection, scientific research, and tourism, and there has been little attempt to coordinate this sectoral decision-making. As a result, conflicts occur between sectors, and the use of resources is often suboptimal. A more integrated approach, whereby all uses of maritime resources are harmonized, would ensure a much more efficient and cost-effective system, improving the security and the economic, environmental and strategic performance of the nation. This article is an analysis of the idea of integrated national maritime policy (INMP) and its application to the Kingdom of Saudi Arabia. The concept of INMP is becoming increasingly accepted by governments across the world (Cicin-Sain 2007; CEC 2008: 3): many countries have either adopted it or are evaluating it, and the European Union (EU) Commission has developed a maritime policy that it is rolling out across its maritime member states (CEC 2008). Moreover, an integrated approach to maritime policy has been endorsed by several international regimes, including the United Nations Conference on the Law of the Sea (UNCLOS) and the United Nations Conference on Environment and Development (UNCED). So, as Dr Joe Borg, former EU Maritime Affairs and Fisheries Commissioner, put it, “the need for an integrated approach to maritime affairs seems fairly obvious. It is clearly an idea whose time has come” (Borg 2008).

Applying the concept to Saudi Arabia, extensive fieldwork was carried out to examine the current sectoral marine policy in the Kingdom; to identify support for the idea of developing an INMP in Saudi Arabia; and to examine the factors obstructing its introduction. Among these factors were a tradition of sectoral policies on maritime activities, the absence of a national strategy for prioritizing the various sea uses, uncoordinated marine information systems and databases, inadequate maritime skills, and insufficient marine scientific research. Ways of overcoming these obstacles are discussed.

Section 2 analyses the concept of INMP. Section 3 explains the current sectoral system of marine governance in Saudi Arabia. Section 4 reports the results of the interviews and survey questionnaire carried out in the Kingdom to assess the perceptions of stakeholders on the need for INMP. Section 5 discusses the implications of these results for the prospects of the introduction of INMP into Saudi Arabia. Section 6 summarises the findings of the paper and makes ten recommendations on how to introduce INMP to Saudi Arabia.

### **2. The concept of INMP**

Today there is a growing realization that INMP is essential for addressing the strategic, security, economic, and environmental challenges of resource exploitation opportunities in a more efficient and holistic manner. Over a score of developed maritime nations (including Australia, Belgium, Canada, France, Germany, Greece, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Russia, Slovenia, Spain, Sweden, the UK, the USA, and the European Union as a whole) together with over a dozen developing countries (including Brazil, China, India, Indonesia, Kenya, Korea, Mexico, the Pacific Islands, the Philippines, Sri Lanka, Thailand, and Vietnam) have begun to develop INMP strategies and action plans. One catalyst for this move towards INMP was UNCLOS, which came into effect in 1994 and launched a new framework for the world’s oceans, aiming for the sustainable development of the oceans through the establishment of integrated and holistic ocean governance. In the preamble to the UNCLOS Treaty, signed at Montego Bay in December 1982, it was stated that ‘the problems of ocean space are closely interrelated and need to be considered as a whole’. Another catalyst for the development of an INMP was UNCED held in 1992, which addressed issues and challenges related to sustainable development at the global level. Chapter 17 of UNCED’s Agenda 21 advocated a new and

integrated approach to the sustainable development of oceans and coasts. In addition, the Convention on Biological Diversity (CBD), the Barbados Plan of Action (BPA), the Global Programme of Action for the Protection of the Marine Environment from Land-Based Pollution (GPA), and the Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fishing, all called for a cross-sectoral approach to the management of coastal and marine areas. These international initiatives have led many coastal nations to produce integrated divisions for the governance of the ocean areas under their jurisdiction (Cicin-Sain *et al.* 2002). This global concern about the impact that industry and economic development have upon the world's oceans and how best to support the development of oceans and coasts without destroying the resources available, reflects a belief that the current sectoral approach is an inadequate way of using the world's oceans, and that a holistic or integrated approach to ocean usage is needed to secure sustainability in the use of marine resources. The main argument of this article is that it is vital that Saudi Arabia comes to a full understanding of this imperative and follows the lead of other countries in establishing an integrated ecosystem-based planning system to optimize the multiple uses of its maritime environment.

Several writers think that the concept of INMP originated in the notion of Integrated Coastal Zone Management (ICZM), which, according to Juda (2003: 162), started in the late 1960s and early 1970s in the United States. Vallejo (1993: 172, 175), writing in 1993, stated that INMP should consolidate ICZM: "The next step should be to integrate CZM within an all-encompassing ocean policy...the coastal policy should be integrated with the national ocean policy...the coastal policy should be considered as a sub-set of a broader ocean policy that defines the role of the oceans and coastal areas as an integrated whole" (cf Levy 1983: 76, 77). Cicin-Sain and Knecht (1998: 37, 38) noted that coastal and ocean activities are now seen as tied together in a "seamless web". However, there was not a seamless transition from ICZM to INMP. INMP owed its emergence far more to the international politics of the use of the oceans than to the domestic management of the coastal environment. As use of the oceans intensified during the past 70 years, states had to develop ways of resolving conflicts between users (Churchill and Lowe 1988), and as Levy (1983: 78) explains, the traditional way to deal with these increasing maritime problems was sectorally: "...ocean responsibilities have been assigned...in an incremental and fragmented manner under the pressures created by the growing use of ocean space. Traditionally...a sectoral approach became paramount. With the multiplication of various responsibilities corresponding to the increase of the types of uses of the ocean, it is nowadays common to find some 10 to 15 different ministries having ocean-related responsibilities". As Levy (1988: 330) noted, this sectoral approach spawned a vertical rather than a horizontal structure of decision-making, encouraging competition rather than cooperation between ministries, and "One important consequence of the vertical approach is that development in one sector frequently takes little or no account of parallel or related developments in other sectors". Juda (2003: 162) Describing it as a 'dysfunctional' approach – "sectoral approaches to use of the natural environment and its resources are dysfunctional because of generated externalities and mutual interference among different users" – Juda (2003: 162) pointed out that "It is for these reasons that 'multi-use management' efforts began to emerge", in particular through an increasing interest in systems theory. During the last 30 years, several states have undertaken new initiatives to develop integrated ocean policies, and today it is widely accepted that traditionally sectoral institutional arrangements have considerable limitations in handling the complex policy and management requirements involved in the integrated development of ocean and coastal resources and the protection of the marine environment". The necessity for what has been termed 'integrated' ocean policy has been recognized and underscored by many writers, from Underdal (1980) and Levy (1983) in the 1980s to Juda (2003), Cicin-Sain (2007) and Douvere (2008) in the 2000s.

The meaning of INMP is made up of a constellation of interrelated ideas. Five such ideas are fundamental: (i) the reciprocity of rights and duties in marine management; (ii) holism; (iii) ecosystem-based ocean management; (iv) marine spatial planning; and (v) ocean governance. Regarding (i), the reciprocity between the rights and duties of states in accordance with general international law, while states have the sovereign right to exploit their natural resources pursuant to their economic policies, the enjoyment of such a right necessarily entails a parallel duty to protect and preserve the ocean environment (UNEP-GPA 1995). Regarding (ii), the idea of 'holism' entails taking a synoptic view of the whole oceans system. This synoptic approach appears in Orbach's (2006: 8) notion of "total ecology", which encompasses all human interactions with the natural world. The notion of total ecology lies behind the concept of INMP in that INMP is about taking all aspects of the marine system into account. This leads us to the third fundamental idea of INMP – (iii) the ecosystem-based approach to marine management. A major feature of the holism of total ecology (and therefore INMP) is 'ecosystem-based management'. Indeed, for many commentators, ecosystem-based management is the essence of INMP. On (iv), Douvere and Ehler (2007: 582) argue that marine spatial planning (MSP), which is a core element of INMP, is a practical way of pursuing the ecosystem-based approach (cf Maes (2008: 798). Regarding (v), ocean governance is another important element in the evolution of INMP. Ocean governance as a concept first appeared in the Pacem in Maribus XIX conference held in Lisbon, Portugal, on 18–21 November

1991. Although there is no agreed definition of ocean governance (Bernaerts 2008), the term signifies the fundamental necessity for planning and management in the oceans, and looks forward to the rearrangement, creation, or evolution of institutions implied in the UNCED principle of sustainable development in the ocean sphere (Payoyo 1994) – which is exactly what INMP implies for an individual country.

There are 11 distinct features of INMP. First, marine resources are mostly in the public domain and their management is the responsibility of governmental entities rather than private entrepreneurs. Therefore, maritime policy relates the coastal and maritime area to national needs; it is a subset of national public policy (NRC 1995). Second, processes of marine and maritime use are diverse and complex, resulting in many ‘externalities’; that is, the activities of one party affect the interests of one or more of the other users (Constanza *et al.* 1997). Third, a state’s maritime policy influences international politics and vice versa, so few national maritime policies can be formulated without regard to international obligations and consequences (Juda 1996). Fourth, maritime policy has an interdisciplinary dimension (Cicin-Sain and Knecht 1998), involving science, technology, sociology, economics and politics. Fifth, maritime policy is a highly politicized sphere of decision-making, influenced by many government organizations, NGOs, profit and non-profit groups, and developmental and environmental advocates (Cicin-Sain and Knecht 1998), competing for attention and resources (NRC 1995). Sixth, there are several different kinds of integration. Cicin-Sain and Knecht (1998: 45) list five: (i) ‘intersectoral’ (both between marine and coastal sectors and between those sectors and land-based sectors); (ii) ‘intergovernmental’ (both among and between national and local government sectors); (iii) ‘spatial’ (between sea and land sides of the coastal zone); (iv) ‘science-management’ (both between scientific disciplines – including social sciences – and between those disciplines and managers); and (v) ‘international’ (between countries). Seventh, there are several different functions that INMP may serve. Cicin-Sain and Knecht (1998: 47) name five: spatial planning; economic development; conflict resolution; public safety; and resource proprietorship. Eighth, there are different methods of integrating. For Underdal (1980: 166, 167), an integrated policy may be achieved either ‘directly’ or ‘indirectly’: directly, by laying down the policies that have to be followed by all sectors (a policy adopted by Australia); or indirectly, by socializing people into adopting the proposed strategy or by creating institutions to lead them in the required direction (a policy adopted by the USA):

“The direct approach seeks to achieve integration through defining policy goals and guidelines to be followed by all government agencies involved...The indirect approach [divides into] the ‘intellectual’ and the ‘institutional’. The intellectual strategy seeks policy integration through initiating research, training and socialization aimed at developing a more comprehensive and holistic perspective on the part of decision makers...institutional measures...[include] a number of different strategies...[such as] to change decision making procedures...to redistribute resources or formal authority between institutions...[and] to create a new institution...by merging two or more existing institutions, creating a new agency to promote certain values and policy perspectives through bargaining with other agencies, or by establishing a new ‘super-agency’ to coordinate work done by other specialized agencies”.

Ninth, there are different degrees of integration. Cicin-Sain and Knecht (1998: 155) refer to a ‘continuum of policy integration’, ranging from the lowest degree of integration, which is ‘fragmentation’, where there is little linkage between the sectors; to ‘communication’ where there is periodic linkage; to ‘coordination’ where the sectors make some attempt to ‘synchronize their work’; to ‘harmonization’ where this synchronization is ‘guided by a set of explicit policy goals’; and finally to ‘integration’, where sectors are obliged to conform to systematic policy directives. Tenth, there are stages of integration. According to Cicin-Sain *et al.* (2006: 19), there are three broad stages in the process of developing and implementing an INMP: (i) the preparatory stage of setting the agenda, which involves public consultation to transmit the meaning and importance of INMP; (ii) the formulation stage, which entails setting out the policies, guidelines, and institutional implications of introducing INMP; and (iii) the implementation stage, which necessitates the employment of resources to put INMP into practice and the use of sophisticated techniques to resolve disputes between opposing sectional and bureaucratic interests. A fourth stage could be added – (iv) a monitoring and evaluation stage, which includes maritime policy feedback, whereby in the light of feedback, policy goals and priorities are upgraded. Eleventh, each nation’s INMP is unique to it – there is no single model that will fit every case. As Levy (1988: 327–329, 332) puts it: “To propose a single institutional model for states to follow would serve no purpose; depending on its economic, political and other characteristics, each state will have to decide how it intends to deal with its ocean space [and] develop its marine resources”.

### 3. Current sectoral maritime governance in Saudi Arabia

The governance of Saudi Arabia is monarchical (Glick 1980) in which the Qur'an and the Prophet's Sunnah are the source of all law. The King governs with the assistance of both the Shura or Consultative Council which consists of 150 members all appointed by the King (SCS 1992), and the Council of Ministers which consists of the heads of the main government departments who are also appointed by the King. Most laws and regulations originate in the ministry that has authority over the relevant subject matter (CMS 1958). The ministry submits the draft law to the Council of Ministers, which conducts an initial appraisal. If the Council approves the draft, it sends it to the Bureau of Experts, which reviews it to judge whether it would accomplish its purpose. If so, the Bureau submits the draft law to the Shura Council, which determines whether it is compatible with Saudi Arabia's local and international policies (CMS 1958). The Shura Council then sends the draft law for final approval to the Council of Ministers, which then submits it to the King for his assent (CMS 1958). After the King issues a Royal Decree enacting the law, the law is returned to the ministry that drafted it for its implementation.

Within this vertical governmental decision-making structure in Saudi Arabia lies the framework of maritime governance in the Kingdom. The King sits at the top of the system, directly advised by the Shura Council and the Council of Ministers. The next level comprises 12 major ministries (Ministries of Information; Defence and Aviation; Transportation; Agriculture; Petroleum and Mineral Resources; Health; Foreign Affairs; Tourism and Antiquities; Municipal and Rural Affairs; Water and Electricity; Planning; and Commerce and Industry). Below this tier lie 13 divisions of these ministries, while the lowest level consists of 18 maritime services, units or areas. It is a vertical hierarchy with limited horizontal communication or coordination between the ministries.

Like most maritime nations, the Kingdom of Saudi Arabia faces considerable problems in the management of its marine resources, including climate change, sea level rise, marine pollution, rapid urbanization, industrialization, growing population, increased foreign trade, technological advances, security threats, and the changing international maritime order. However, as in many other countries, the governance of Saudi Arabia's marine environment has evolved in an ad hoc way, responding to specific sectoral needs such as managing shipping or fisheries resources, without an administrative mechanism to regulate the marine areas of Saudi Arabia as a whole or to address the question of how the sectoral plans interact with each other, or how these marine areas are impacted by land-based activities. Moreover, different ministries and government organizations compete with each other for control of the same, often limited, resources. Marine and coastal management responsibilities in Saudi Arabia are divided between more than 13 ministries, and no attempt has yet been made to coordinate these activities via a national maritime strategy. The current situation is characterized by top-down, vertical structural linkages between national programmes and provincial implementing agencies, with inadequate mechanisms for partnering with communities, industries and other coastal and marine resource users. This absence of an integrated national maritime policy has retarded the development of the whole maritime sector and its resources, and there are increasing signs of environmental degradation of habitats, depletion of fisheries, pollution of coastal waters, invasions of alien species, and loss of biodiversity (PERSGA 2000). The challenge for the central government is to move towards a state of 'harmonization' whereby sectoral decision-makers continue to operate their own programmes but coordinate their actions, guided by an integrated set of national policies and priorities.

This is not to say that Saudi Arabia has failed to respond to the external challenges facing its maritime policies. On the contrary, during the last 20 years, strenuous efforts have been made in the Kingdom to deal with pressures from the international community. For example, the Ministry of Foreign Affairs (MFA) periodically convenes an inter-agency group to coordinate the national position on internationally-driven maritime development issues, especially those related to UNCLOS and other international agreements. Also, the Kingdom established legal protocols consistent with the 1954 International Convention for the Prevention of Pollution of the Seas to protect against oil discharges and dumping of ballast water in its waters. However, these moves to accommodate external obligations have not led to an internal integration of maritime policy in Saudi Arabia. This is a missed opportunity for the Kingdom to improve its use of natural resources – a missed opportunity due to lack of knowledge of the benefits of an integrated approach (GSDP 2009: 69). To assist Saudi Arabia in achieving an INMP, this study probes the dominant and prevailing maritime issues that the country faces, and suggests the means by which a comprehensive maritime policy approach can be developed to improve its management of marine resources and maritime activities. Despite the challenge this goal represents, it is achievable, as we can see from the fact that many other countries have already begun the process of developing and implementing INMPs.

#### **4. Results of the interviews and survey questionnaire carried out in Saudi Arabia to assess the perceptions of stakeholders on the need for INMP.**

##### **4.1 Interview results**

INMP will not be successful unless government officials who are charged with the task of implementing it, and other stakeholders who will be affected by it, are in favour of it or can be persuaded to adopt it. Extensive fieldwork was carried out in Saudi Arabia by co-author Hatim Al-Bisher in 2008 to investigate the opinions on INMP held by government officials and other stakeholders, and the results of that investigation are presented in this section. The fieldwork concentrated on the opinions of government officials and other stakeholders on two issues: the effectiveness of the current sectoral system of marine management; and the importance of moving to an integrated system. Data were gathered during fieldwork undertaken during June–September 2008, which involved 36 interviews, including nine interviews with the following key decision-makers: the Secretary-General of the Saudi Commission for Tourism and Antiquities (SCTA); the Deputy Director of the General Survey Commission's Marine Survey Department (GSC/MSD); the Deputy Director of the General Presidency of Meteorology and Environment (GPME); the Deputy of the Ministry of Agriculture MoA) responsible for the Fisheries Resource Agency (FRA); the Deputy of Transport Affairs responsible for the General Maritime Department (GMD/MoT); the President of the Saudi Ports Authority (SPA) within the Ministry of Transportation (MoT); the General Director of the Border Guard (GDBG) the Director of the Natural Resources and Environment Research Institute (NRERI) of the King Abdul-Aziz City for Science and Technology (KACST); and the Director of Saudi Aramco's Maritime Academy (SAMA). The remaining 27 interviews were conducted with middle management officials, including Port Directors, Border Guard Area Commanders, Fisheries Centre Directors, Tourism Centre Directors, and Environment Directors. In addition, data on the same issues were obtained from 230 survey questionnaires administered to participants who did not hold decision-making roles, including employees working for relevant government ministries or departments in every maritime province, together with stakeholders from the private sector and civil society organizations such as the fishermen cooperative societies.

The results of the interviews of the nine top-level government officials on the first issue – the effectiveness of the current sectoral system of marine management – were divided into 'organizational' and 'functional' scores. Organizational scores indicated which organizations were rated the most efficient in carrying out their maritime responsibilities; functional scores indicated which maritime functions carried out by the organizations were most effectively accomplished. The organizational scores showed that of the nine organizations, the one that was deemed to manage its maritime portfolio in the most sustainable way was the SPA, followed closely by the GDBG. This result is a confirmation of the high reputation that these two organizations have for carrying out their maritime responsibilities with great diligence. By contrast, the organization that was deemed to manage its maritime portfolio in the least sustainable way was KACST, suggesting that it did not regard itself as having a significant maritime portfolio. KACST was followed closely by the GMD/MoT, indicating that in all but its governance system, the GMD did not seem to deliver a very sustainable maritime service. The moderate scores gained by the other five organizations suggest that although their records of maritime management were moderate, there was much more they could achieve. The functional scores showed that of the five functions considered (structure; governance; strategy; human resources; and information), the two most effective functions of sustainable maritime management in the nine organizations were governance and information, suggesting that in most cases, the organizations had the semblance of a system for dealing with maritime issues and gathering relevant data. The most ineffective function was structure, indicating that in many organizations the highest maritime decision-maker was not in a senior post. This confirms the suspicion that the scarcity of maritime decision-makers at the top level is one of the major factors preventing the sustainable development of the maritime sector in the Kingdom. The moderate functional scores for strategy and human resources suggested that the lack of maritime strategies and the lack of maritime-based skills are factors that adversely affect maritime sustainability.

The results of the interviews of the nine top-level government officials on the second issue – the importance of moving to an integrated system – were also divided into organizational and functional categories. Here the organizational scores showed that four organizations – the GSC/MSD, the MoA/FRA, the GDBG, and KACST – each gained the maximum score, indicating that their representatives strongly endorsed all the elements of an integrated maritime management system – integrated national maritime policy (INMP); national maritime law (NML); deficiencies of current maritime policy (CMP); national maritime information centre (NMIC); and national maritime development commission (NMDC). The leaders of these four organizations are among the most forward-looking maritime thinkers in the country, and their enthusiastic support for an integrated approach to maritime management is a reflection of their progressive-mindedness. The organization that gained the lowest

score was the MoT/GMD, which is known to have a low status in the ministerial pecking order, and to be staffed by relatively junior figures with a limited vision of maritime issues. The other four organizations gained moderate scores, indicating that they were regarded as quite favourably disposed towards the notion of integrated maritime management. The functional scores showed that the two most favoured elements of maritime integration were INMP and CMP, followed by NML and NMDC, while the least favoured element was NMIC. The reason why INMP was most highly favoured is because INMP is an ideal to which all respondents were happy to sign up, indicating their theoretical commitment to the principle of integration. The reason why CMP was equally highly favoured is because all respondents were happy to acknowledge that their respective organizations currently fell far short of delivering an integrated maritime policy. The reason why NML and NMDC were quite highly favoured is because respondents recognized the necessity for new legislation and a new institution if the ideal of integration is to become a reality. The reason why NMIC was the least favoured element is because senior staff were not particularly critical of existing data-gathering services.

The results of the interviews with the 27 middle-level respondents on the first issue - their views on the current sectoral system of marine management - were almost entirely standard repetitions of official information that we had already obtained, and so we have not made use of them. But their views on the second issue - the attractiveness of moving to an integrated system - produced new data. The organizational scores showed that the middle-level decision-makers who were most committed to the notion of integration were the Transport Directors, followed by the Environment Directors. The next committed were the Fisheries Directors; the Tourism Directors; and the Port Directors. The Border Guard Commanders were the least committed, which contrasts with the opinions expressed by their superior, who saw the GDBG as among the most committed to integration. The functional scores showed that the most favoured element of integration among middle-level decision-makers was INMP (as with their superiors); followed closely by NMIC and NMDC (in contrast to their superiors). The least favoured element was CMP, in stark contrast with their superiors, suggesting that unlike top-level decision-makers who were highly critical of their organizations' lack of integration, middle-level decision-makers appeared to find more integration on the ground.

#### 4.2 Survey results

The survey questionnaire was designed to draw out opinions from a cross-section of individuals, including those involved in marine management decision-making such as government employees working for ministries with responsibilities for marine resources management and stakeholders affected by those decisions such as employees in shipping services, port operations, fishing companies, leisure and tourism services. The survey questionnaire was administered to 230 respondents (all of whom completed and returned it) who lived in all of Saudi's maritime provinces (Makkah, Madinah, Tabuk, Assir, Gizan, and the Eastern Province of Saudi Arabia including the Capital Province). The main elements of the survey questionnaire were twofold: 68 specific questions, and eight Lickert (rank-ordering) questions (four closed; four open-ended), on the central issues and themes of integrated maritime policy. The respondents' answers are set out in the following section, divided into the following ten themes, reflecting the central issues of integrated maritime policy:

##### (1) *The importance of maritime resources and of integrating their management*

Virtually all (99.6 per cent) of the survey respondents believed that the marine resources and maritime activities in Saudi Arabia had both strategic and economic importance but 83 per cent believed there were many unused investment opportunities in the Saudi maritime sector; only 39.6 per cent thought there was a national strategy for developing the national maritime fleet; and 76.5 per cent believed that the lack of a national vision weakened the development of marine tourism activities, leisure services, marine sports and diving. To capitalize on these and other missed opportunities, an integrated maritime strategy policy was deemed necessary by 89.6 per cent of respondents.

##### (2) *Security and safety*

Most respondents affirmed that maritime security and safety was a major challenge - 90.4 per cent stated that the development of methods for monitoring and protecting maritime areas was a fundamental requirement for ensuring national maritime security, and the same percentage held that the development of search and rescue centres and services covering all Saudi Arabia's maritime areas was a national and international obligation. However, 52.6 per cent said that at present there was an overlap of authorities and a lack of clear regulations used for ensuring compliance with safety and security requirements by ships steaming through Saudi maritime areas.

##### (3) *Ports*

The survey showed that only 42.6 per cent of respondents believed there was a national strategy for developing port competence and capacity, and only 28.7 per cent believed that the Saudi commercial privatization programme of all port activities had achieved high operational efficiency. To address these deficiencies, 81.7 per cent held that the regulations governing Saudi ports needed to be integrated.

(4) *Fisheries*

Regarding fisheries, only 37.8 per cent of the survey respondents believed that there was a clear national strategy for developing fisheries resources. Most respondents (88.7 per cent) thought that the policies initiated by the government needed more scientific guidance to achieve the maximum sustainable yield from Saudi Arabia's maritime areas, while 81.3 per cent claimed that the poor monitoring of fishing activities and the lack of electronics and surveillance methods had contributed to the failure of fisheries management.

(5) *Environmental threats*

Regarding the health of the seas, while 60.8 per cent of survey respondents thought that there was a clear national strategy for the protection and preservation of the marine environment in the Kingdom of Saudi Arabia, only 46.1 per cent believed that the Kingdom was sufficiently involved in preventing its pollution, and only 26.1 per cent thought the Kingdom possessed the technology and expertise required for monitoring the problem.

(6) *Human resources*

Most respondents were critical of Saudi government policies on human resources training in maritime skills. For example, 83.5 per cent said that the lack of a national institution or regulation for managing maritime professions contributed to a scarcity of qualified marine workers and seafarers, while 96.1 per cent thought that Saudi Arabia's maritime education and qualifications needed more scientific guidance and support.

(7) *Information needs*

Most survey respondents criticised the government's record on obtaining maritime data. Virtually everyone (98.3 per cent) considered that the establishment of an NMIC for monitoring all ships' movements and other maritime activities was vital for achieving sustainable maritime development, but only 30 per cent thought that Saudi authorities operated a transparent information system in managing marine resources, and only 19.5 per cent believed that the government was making use of state of the art information technology to integrate the work of different governmental authorities.

(8) *Stakeholder participation*

While 87.4 per cent said that the participation of all stakeholders in the decision-making required for managing marine resources and maritime activities was a prerequisite for achieving sustainable maritime development, only 24.8 per cent believed that the responsible authorities took seriously enough the need to educate the public to protect and preserve the marine environment.

(9) *Institutions*

Most survey respondents (89.5 per cent) held that the presence of a supreme authority responsible for formulating a national maritime policy for the Kingdom was a prerequisite for achieving sustainable maritime development, and 93.1 per cent believed that the establishment of a national centre for maritime studies and marine scientific research was another prerequisite.

(10) *The international dimension*

Many respondents (29.2 per cent) believed that the numerous international maritime conventions ratified by the Kingdom were not being implemented by national regulations. Most respondents (68.7 per cent) claimed that the lack of a clear mechanism for implementing these conventions was at the root of the problem, and only 46.1 per cent believed that the authorities responsible for maritime management were committed to the international conventions.

The most striking finding of the fieldwork investigation into the opinions of Saudi Arabians on maritime policy in the Kingdom was the high level of consensus between them. The interviews of top-level and middle-level officials, and the survey questionnaires of the wider stakeholder community all reveal considerable agreement on three central propositions: (i) that the Kingdom's maritime resources are vital to the security of the nation and its economic success; (ii) that these resources are not currently being managed in the most effective manner; and (iii) that the main cause of this failure is the lack of an integrated maritime strategy.

## **5. Obstacles to the introduction of INMP into Saudi Arabia, and ways of overcoming them**

### 5.1 Obstacles to INMP in Saudi Arabia

There are four main obstacles to the introduction of an INMP in Saudi Arabia: institutional, informational, ideological, and political. The main problem faced by Saudi Arabia in establishing an INMP is the silo culture that persists in its governmental institutions. As Juda (2003: 166) notes, this is a common problem faced by countries embarking on INMPs: “bureaucratic bodies will mobilize to protect existing agency jurisdiction (turf)”. Similarly, Miles (1999: 7) writes that “in most cases, any attempt to impose centralized coordination on previously uncoordinated systems will trigger high degrees of bureaucratic conflict over issues of ‘turf’ and the right to manage” (c.f. Cicin-Sain and Knecht 1998: 128). The organizational structures governing the various sea resources in Saudi Arabia function in a fragmented and uncoordinated fashion, lacking an integrative capacity for formulating and implementing a consistent national maritime policy with mechanisms for dealing with multiple use conflicts. The Kingdom’s top-down vertical decision-making political structure is poorly designed for horizontal interaction, and officials lack experience in cross-sectoral negotiation. Any attempt to impose harmonization processes may be met with resistance by officials defending their traditional territory. This silo culture is the first issue that a new INMP initiative must address.

The second obstacle is informational. In Saudi Arabia there is inadequate maritime scientific research and training. An INMP is necessarily a science-based exercise: the whole point of integrating disparate sectoral maritime policies is to take account of the complex interrelationships that exist between the different sectors, and an understanding of these interrelationships depends on scientific evidence. But Saudi Arabia does not have sufficiently advanced maritime research centres to provide this scientific evidence. In the questionnaire survey, 88.2 per cent of respondents held that lack of information technology, databases, networks and systems had contributed to the difficulty in providing the data and information flows required for achieving integration between the different authorities, and 93.1 per cent believed that the establishment of a national centre for maritime studies and marine scientific research was a fundamental requirement for achieving sustainable maritime development. Of course, Saudi Arabia can draw on the scientific expertise of foreigners, but according to IOC (2008), so long as science leaders in developing countries do not have their own capacity to lead and manage, they will always remain trapped in a cycle of poor governance, wasted resources and dependence on external agencies. Because developing countries have many immediate problems to address, support for marine sciences research and monitoring is understandably a low priority. But it is first on the list of three phases in the IOC’s strategy for sustainable management of the oceans and coasts.

This is not to deny that in Saudi Arabia there are numerous scientific institutions, such as KACST, King Abdul-Aziz University Marine Science Faculty (KAUMSF), King Faisal University (KFU), MoA, GPME, National Commission for Wildlife Conservation and Development (NCWCD), GSC, SPA, GDBG, and Aramco, all of which have played an important role in developing marine sciences in Saudi Arabia. But the fact that these efforts are fragmented, overlapping, and lack a common marine science-based strategy has created many obstacles for developing a national capacity to understand the sea and coasts. It is true that an attempt was made in 1993 with the introduction of the Marine Scientific Research Regulation to integrate marine scientific research, including photography and recording for scientific purposes, water studies and researches, and the search for marine resources. GSC was designated the competent authority for overseeing the implementation of this regulation in cooperation with other government authorities and universities, and all marine scientific research required GSC approval. In 2004, the Council of Ministers established a Marine Scientific Research Consultation Committee as a coordination mechanism, chaired by GSC and including one member each from PME, GDBG, and KACST, and one member from every Saudi university that conducts marine scientific research. However, the Committee does not include other important bodies conducting major scientific marine research, such as the Saudi Geological Survey (SGS), MoA, Ministry of Petroleum and Mineral Resources (MoPMR) and Aramco. One of these bodies, MoA, is the main authority responsible for the conduct of fisheries and other living marine resources research and has several fish and fish farm research locations along the Kingdom’s coasts. Furthermore, it is clear from the text of the regulation that the purpose of the committee is only to regulate, not to develop, sustainable marine sciences and research programmes in the Kingdom.

Criticism has also been made of the provision for maritime education in Saudi Arabia – that it is inadequate for the task of training a sufficiently large cohort of qualified personnel to implement and manage an INMP. In the questionnaire survey, 96.1 per cent of respondents thought that Saudi Arabian maritime education needed more scientific guidance and support, and 83.5 per cent said that the lack of a national institution for managing the maritime professions had contributed to a scarcity of qualified marine workers and seafarers. It is true that there are some maritime educational and training institutes. For example, KAUMSF, King Fahad University, King Fahad Naval Academy, the Royal Navy Marine Institute, the GDBG Marine Institute, the SPA, and Aramco all



provide marine skills training. However, their efforts are fragmented and have not been integrated into a unified strategy for meeting the needs of maritime management.

The third obstacle is ideological. Strong opposition to INMP can be expected from people who have a vested interest ideologically or personally in the status quo. Cicin-Sain and Knecht (1998: 128) refer to “ideological opposition” from people who are opposed to interventionist government in principle; and to “opposition from economic interests tied to existing patterns of ocean or coastal use that are benefitting from the status quo”. In Saudi Arabia, there may be groups of people who perceive INMP as a direct threat to their political values, personal livelihoods, or ways of life.

The fourth obstacle is political. A critical component of any integrated maritime policy, planning and management system is the degree of political will or commitment to implement such a policy. Cicin-Sain and Knecht (1998: 129) note that “An adequate measure of political will is generally needed by decision makers... to commit the resources... necessary to undertake an initiative such as ICM. Decisions of this nature do not tend to be made spontaneously or readily”. Because a sectoral policy approach has always been in place in the Kingdom, the introduction of an integrated policy approach will take much tenacity, probably by a very senior figure in the government or even in the ranks of the Royalty. The political will of the Saudi government may be stiffened by the fact that 89.5 per cent of respondents held that the creation of a supreme authority responsible for formulating a national maritime policy for the Kingdom was a prerequisite for achieving sustainable maritime development; and 94 per cent considered that the setting up of a commission with overall authority to manage marine resources and maritime activities was a national demand and needed to be supported by a Royal Decree.

## 5.2 Overcoming the obstacles to INMP in Saudi Arabia

There are ten recommendations for overcoming these obstacles to INMP in Saudi Arabia. The first recommendation is that advocates of INMP should mobilize support for the concept both outside the governing system (by networking in civil society to connect with stakeholders and with NGOs) and inside the governing system (by networking in the corridors of power to gain the ear of influential decision-makers). The purpose of this networking is to raise public awareness of the notion and importance of INMP, and to bring pressure to bear on the government to recognize the importance that its marine areas have on the country’s strategy, security, economy and environment and the necessity to give maritime policy a higher priority than at present. At the same time, INMP advocates should take care to reassure the government and public stakeholders that the INMP is designed not to *destroy* traditional familiar patterns of maritime management, but rather to *harmonize* them into a coherent overall policy framework. The second recommendation is that INMP advocates should press for a comprehensive review of all marine-related activities and laws, preferably by establishing an independent commission for a specific period of time with a clear mandate, as in the approach used by the USA. The third recommendation is that the government should make the introduction of INMP a legally binding requirement, not merely a voluntary initiative, because too many worthy initiatives wither on the vine because they are optional. The fourth recommendation is that INMP advocates should urge the Kingdom to create new institutional arrangements that could produce a real change in current practice – in particular, to establish a major new ministry with exclusive responsibility for overseeing the development and implementation of an INMP. This recommendation follows the examples of Belgium and South Korea. However, the fifth recommendation is that INMP advocates should emphasize that this does not mean that an INMP would be forced upon stakeholders by coercive means: on the contrary, an extensive process of public consultation would be undertaken in order to explain the meaning and value of INMP and to obtain feedback from maritime users and other stakeholders about the best ways to introduce it. This indicates that an INMP should be seen as a public commitment to maritime goals by society as a whole rather than as governmental fiat. The sixth recommendation is that INMP should be interpreted not as a purely environmental conservation policy but as a statement of society’s high valuation of its maritime resources. The seventh recommendation is that implementation of INMP should be phased in gradually, beginning with pilot projects in particular areas to test different models of integration. The eighth recommendation is for INMP advocates to ensure that the implementation of INMP is based on the best scientific evidence, including social science. The ninth recommendation is to establish a national maritime information centre responsible for collecting and analysing maritime data of all kinds, including intelligence information for security purposes. The tenth recommendation is to guarantee that sufficient financial support is provided to ensure the successful implementation of the INMP. This could involve setting up a maritime policy trust fund in which to invest all expected revenue from marine licensing.

## 6. Conclusion

INMP is a relatively new approach to marine governance. Its rationale is that until recently there has been little joined-up thinking about the maritime sector, and that current policies in each of its component parts – maritime transport, industry, coastal development, offshore energy, fisheries, and the marine environment – have developed separately with limited attempts at coordination. INMP aims to integrate strategic, security, economic, and environmental factors in order to deal more effectively with maritime problems and opportunities by a systemic change in the thinking behind maritime governance. Applying the concept of INMP to Saudi Arabia, this study seeks to demonstrate the benefits it would bring to the country's use of marine resources. The Kingdom depends on the sea for its continued prosperity – it has extensive marine resources, including offshore energy deposits, rich marine biodiversity, internationally important shipping lanes and ports, and massive desalinization plants – but the current sectoral system is failing to achieve the most effective use of these resources, with some security threats unaddressed, many economic opportunities lost, and much environmental damage done. The main reason for this failure is the lack of an integrated policy to use marine resources in a coherent manner. At the heart of this deficiency lies a structural weakness – the overlap of ministerial responsibilities – which leads to a lack of attention in some areas, and an excess of attention in others as there is no overriding authority to cohere decisions. Saudi Arabia has many sectoral policies and bodies with responsibilities for managing maritime affairs, but these policies are not harmonized, and there are no effective mechanisms for cross-sectoral coordination, collaboration, or cooperation between the bodies responsible.

However, the adoption of INMP is very challenging in Saudi Arabia because despite the sense of maritime identity in Saudi Arabia is limited, and the country lacks the basic policy tools and scientific capacity to create a real change in its current maritime governance framework. There has been minimal interest in investigating the advantages of managing the Saudi maritime sector in a strategic, holistic manner and there is a lack of political will to challenge the governing structure and trends. Moreover, the top-down structure of political decision-making in the Kingdom makes the task of introducing horizontal forms of policy collaboration particularly difficult. However, the Saudi maritime sector is growing in economic importance, particularly in international trade, shipping, and coastal development, resulting in increasing pressure on the marine environment, exacerbated by various maritime security threats, making it ever more important that the whole maritime sector is managed in an integrated and coherent manner. Also the results of the fieldwork undertaken in Saudi Arabia for this study showed that most participants affirmed that there was a lack of integration between government departments responsible for maritime affairs, and that there was a need for an INMP, an integrated national maritime law, an integrated national maritime information centre, and an NMDC.

Saudi Arabia stands at a crossroads: it can choose either to maintain the unsatisfactory sectoral system of marine governance currently in place or to respond to economic and environmental imperatives and change to an integrated system. The Kingdom's current governance system for its extensive marine resources is flawed because these resources are not being exploited to their maximum capacity, yet they are being degraded. The importance of the marine sector to the country cannot be exaggerated, and the need for a policy that will both maximize its economic potential and protect its ecological health is critical. In our view, urgent action is required to replace Saudi Arabia's sectoral system of marine governance with a comprehensive, integrated, national maritime policy.

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