

SEA systems in the Middle East and North Africa region

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Abstract

Globally, Strategic Environmental Assessment (SEA), a decision support tool that integrates environmental considerations into policies, plans and programs, has played an appreciable role in the decision making on land use planning, transportation policies, development sectors and infrastructure plans. This paper discusses the application and performance of SEA in the Middle East and North Africa region through a comparative assessment of existing and potential legal, institutional and procedural SEA frameworks. The research methodology involves both countries' self-assessment of their SEA system through open-ended surveys and country analysis of SEA national application and structure. The results show varied levels of weaknesses embedded in the legal and administrative frameworks and poor integration with the decision making process. Capitalizing on current opportunities, the paper highlights measures to enhance the development and enactment of SEA in the region.

Keywords: SEA, legal and institutional frameworks, performance, MENA region.

1 Introduction

The rationale for strategic environmental assessment (SEA) stems from the need for an approach that extends beyond the downstream analysis and mitigation of adverse impacts of development while catering for the interdependency of poverty, development, growth and environment. Its unique feature lies in integrating environmental considerations at a high level of decision making and ensuring an early warning of cumulative and synergistic effects leading to large-scale changes. Since the enactment of the 2001/42/EC European Council SEA Directive and the Kiev 2003 Protocol, SEA has been on a rising trend of



adoption with further mainstreaming by international legal and policy developments. Today, its implementation has become common practice in developed countries with increased momentum worldwide where around forty countries are known to have formal SEA systems (Noble [1]; Abaza *et al.* [2], Partidario [3]). Countries with economies in transition are also increasingly mainstreaming SEA in their policy planning (Sanchez and Sanchez [4]; Garfi *et al.* [5]; Sheate and Partidario [6]; ECA [7]) while its application in developing countries remains limited albeit a slow progress promoted mostly by international organizations. Although there is a consensus on the need to evaluate SEA implementation and performance, comparative assessment of SEA systems has not been widely reported (Retief *et al.* [8]; Chaker *et al.* [9]; Cashmore *et al.* [10]; Partidario and Fischer [11]; Sadler [12]; Dalal-Calyton and Sadler [13]). This paper evaluates SEA application and performance in the Middle East and North Africa (MENA) region through a comparative assessment of related legal, institutional, and procedural frameworks while outlining future needs to enhance the effectiveness and mainstreaming of SEA implementation in the region.

2 Methodology

The MENA region, consisting of 20 countries (Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestinian Authority, Oman, Qatar, Kingdom of Saudi Arabia (KSA), Syria, Tunisia, Turkey, United Arab Emirates (UAE) and Yemen), spans over a geographical area of 8.7M km² that is disproportionately populated and endowed with natural resources. While all suffer from similar environmental problems consisting mainly of water scarcity, land, coastal and marine degradation, and weak environmental institutions (Tolba and Saab [14]), country-specific environmental management is defined by the varying severity of these challenges, as well as by the diversity of political systems and policy making processes that exist among countries exhibiting different levels of transparency, accountability, efficiency and effectiveness.

The methodology consisted of evaluating and comparing SEA systems within an analytical framework based on pre-defined evaluation criteria. The use of a systematic framework to evaluate SEA systems has been promoted with criteria based on SEA contribution to decision-making (Sanchez and Sanchez [4]; Dalal-Calyton and Sadler [13]) as well as by performance criteria for the evaluation of the effectiveness of existing SEA processes (Retief [15]; IAIA [16]). While, it is argued that different criteria should be used to evaluate SEA systems in countries with different planning systems (Marsden [17]; Fischer and Gazzola [18]; Retief [15]), common criteria were used for the comparative assessment in this study based on four performance areas: institutionalization, implementation process and application, review, and influence on decision making, within which seven performance criteria were evaluated with 17 performance indicators (Table 1). Data were compiled from relevant literature supplemented with countries' self-assessment of their SEA systems and experiences through open-ended surveys. The surveys, circulated to accessible focal points at relevant national authorities in 14 countries, examined legal and operational frameworks for examples of

Table 1: Evaluation criteria.

<i>Performance area</i>	<i>Performance Criterion</i>	<i>Performance Indicator</i>
Institutionalization of SEA	Legal Framework	Enabling legislation for SEA exists
		Specific SEA legislation for SEA exists
		SEA guidelines exist
	Administrative Framework	Competent Responsible Authority(ies) for SEA specified
Competent Authority(ies) for SEA Preparation defined		
SEA implementation process and application	SEA Application Level	SEA is applied to plans and/or programs and/or policies
	SEA type	SEA conducted is sectoral and/or programmatic and/or cumulative and/or regional
	SEA Process	Steps included in the SEA process: screening; scoping; impacts; alternatives; impact mitigation; public participation
SEA review	Review Process	Competent Authority for SEA Review defined
		Review process procedures exist
		SEA Quality
SEA influence on decision making	SEA impact	SEA results are adopted in decision making process
		SEA included implementation monitoring

successful SEAs and lessons learnt, and the local challenges and weaknesses to SEA implementation.

3 Results and discussion

The survey, although complemented the data collection process, had a response rate of 42 percent. Further, the disparity, inconsistency and inequality in the scope and scale of accessible country-specific data presented a limitation to the analysis. As such, while SEA experiences and implementation is discussed for all countries, the comparative assessment is limited to countries with existing SEA frameworks or SEA studies, about 12 of the 20 countries examined.

3.1 SEA institutionalization

All examined MENA countries have general enabling as well as EIA legislation which often overlap with their framework laws on environment. In contrast, specific SEA legislation (Table 2) is at different stages of development in the region. About 14 countries do not have any kind of SEA legislation whereas Lebanon has a recently enacted SEA legislation; Turkey has a draft one while KSA, Qatar and Israel, although request environmental assessment of plans, still categorize it within EIAs. Furthermore, Morocco, Yemen and UAE are in the process of updating their legislation whereas Egypt is requesting SEAs based on the existing enabling legislation. In Jordan, Oman, Tunisia and Qatar SEAs are conducted despite the absence of specific legislation. Note that the Emirate of Abu Dhabi enacted technical guidelines in 2010 unilaterally to organize SEA implementation in the Emirate.



Table 2: SEA institutionalization.

Country	Legal Framework		Administrative Framework	
	Enabling legislation	Specific SEA legislation and guidelines	Authority for SEA administration	Authority for SEA Preparation
Algeria	Law 3/1983 on the Protection of the Environment	No specific SEA legislation or guidelines	Ministry of Land Use and Environment	n.a.
Bahrain ¹	Legislative decree No. 21/1996 on Environment	No SEA legislation or guidelines	Directorate of Environmental Assessment and Planning	n.a.
Egypt ²	Law 4/1994 amended by Law 9/2009 on Environmental Affairs	No legislation or guidelines; requested based on Law No. 4/1994	Ministry of Environment; Ministry of Tourism	Available SEAs by EEAA.
Iran	Constitution, Article 50 Decree 138/1994 of 2 nd development plan	No specific SEA legislation or guidelines	Department of Environment	n.a.
Iraq ³	Law No. 27/2009 on environmental protection and improvement	No specific SEA legislation or guidelines; new EIA legislation	Ministry of Environment	n.a.
Israel ⁴	Planning and Building Law of 1982	Regulation 5763/2003 on impact assessments of plans, still cited as EIA	Ministry of Environment	Statement Editor(s)
Jordan	Law No. 52/2006 on Protection of Environment	No SEA legislation or guidelines	Ministry of Environment	n.a.
Kuwait	Law No. 21 of 1995 on Protection of Environment and amendments	No SEA specific legislation or guidelines	Environment Public Authority	n.a.
Lebanon ⁵	Law 4/2002 (Code of the Environment) where Article 23 states that an EA be done to any study, program or investment	SEA decree enacted in April 2012 after 7 years of drafting, guidelines appended to SEA decree	Ministry of Environment	Environmental Consultancy firms
Libya ⁶	Law No. 15/2003 on Protection of the environment	No SEA regulations or guidelines	Environment General Authority	n.a.
Morocco ⁷	Law 2/2003 on Environmental Impact Assessment	No SEA legislation or guidelines; being put in place now	National Committee for Impact Assessment;	Available SEA by international consultants

Table 2: Continued.

Country	Legal Framework		Administrative Framework	
	Enabling legislation	Specific SEA legislation and guidelines	Authority for SEA administration	Authority for SEA Preparation
Oman ⁸	Decree No. 114/2001 on enactment of Law on Protection of Environment	No SEA legislation or guidelines	Ministry of Environment and Climate Affairs	n.a.
Qatar ⁹	Decree Law No. 30/2002 on Environmental Protection	No SEA legislation or guidelines. EIA is requested for plans	Ministry of Environment ; Higher Council for Environment	Available SEA by international consultant
Qatar ⁹	Decree Law No. 30/2002 on Environmental Protection	No SEA legislation or guidelines. EIA is requested for plans	Ministry of Environment ; Higher Council for Environment	Available SEA by international consultant
Syria ¹⁰	Law No. 50/2002 on Environment	No SEA legislation or guidelines	Ministry of Environment	n.a.
Saudi Arabia	Resolution No. 193/2001 on General Environment Code and Implementation Rules	No SEA legislation or guidelines; EIA is required for plans	Presidency of Meteorology and Environment ; Ministerial Committee on the Environment	Agency in charge of implementation
Tunisia ¹¹	Law 14/2001 on assessment of environmental impacts	No SEA legislation or guidelines	Ministry of Environment and Sustainable Development	n.a.
Turkey ¹²	Law of Environment No. 2872/1983 amended by Law 5491/1988 with Article 10 concerned on assessment of environmental impacts from planned activities Law no. 4856/2003 on the Establishment and Duties of the Ministry of Environment and Forestry	National legislation on SEA drafted awaiting enactment (as per SEA Directive 2001/42/EC) No guidelines exist	Department of SEA and Planning of Ministry of Environment	Ministry of Environment and Forestry to conduct EIAs and SEAs, but not clear if directly or through third parties
Yemen	Law No. 26/1995 on the environment protection Law No. 11/1993 on protection of marine environment	No SEA legislation or guidelines	Ministry of Water and Environment Environment Protection Council	n.a.

Table 2: Continued.

Country	Legal Framework		Administrative Framework	
	Enabling legislation	Specific SEA legislation and guidelines	Authority for SEA administration	Authority for SEA Preparation
UAE ¹³	Federal Law 24/1999 amended by Federal Law 11/2006 on Environment where Article 3 to 8 stipulate impact assessment of projects and activities but without defining projects and activities.	Legislation at national level being updated to include SEA SEAs conducted in Abu Dhabi based on requirements of Environment, Health and Safety Management systems ¹⁴ and Technical Guidance Document for SEA (TGD-SEA) (2010) enacted by Abu Dhabi Emirate	Environment agency – Abu Dhabi (EAD) in Abu Dhabi Emirate	EAD approved and registered consultants operating within Abu Dhabi Emirate

¹³Naser [19]; ¹⁴Hany El Shaer, Nature Conservation Sector - Ministry of Environment, Egypt; Ayman Affif, Environics Organization; ³Faten Aziz, Assistant Director , Ministry of Environment, Iraq; ⁴Environmental Planning, Israel Ministry of Environment Protection [online] at: www.sviva.gov.il/bin/en.jsp?en_plan [April 2012]; ⁵Rola El Shelk, Environmental Management Department, Ministry of Environment; ⁶Hisham Gmati, Ministry of Environment; ⁷Amina Drisi, State Secretary in charge of Water and Environment – Department of Environment, Morocco; Abdel Nadi Abarkach, High Commission on Water and Forests, Morocco; ⁸Laws and Regulations, Ministry of Environment and Climate Affairs [online] at: www.moeqa.gov.om/Regulations/Royaldecrees.aspx [April 2012]; ⁹Loon *et al.* [20]; ¹⁰Haydar and Pedititi [21]; ¹¹Environmental Assessment, Ministry of Environment and Sustainable Development [online] at: [www.anpe.nat.tn/index.php?option=com_content&view=](http://www.anpe.nat.tn/index.php?option=com_content&view=article&layout=edit); ¹²Say and Yucel [22]; Guner Ergun, Environment Protection Agency for Special Areas (EPASA) – Turkey; ¹³SEA Technical Guidance Document; Camille Heaton, Strategic Partner of Environment Agency – Abu Dhabi, UAE; ¹⁴Technical Guidance Document for SEA, 2010

Table 3: SEA impact on decision making.

Level	Egypt Plans	Israel Planning and building plans	Jordan n.a	Lebanon Plan, policy and program	Morocco Plans and programs	Oman Plans	Qatar Plans	KSA Plans	Tunisia Plans and programs	Turkey Plans and programs	UAE Plan, program and policies	Yemen n.a.
Sector	Coastal development	Local, district or national plans	Development plans	Land use planning for coastal and mountain areas	Development plans	Development plans	Master plans	n.a.	Development plans	Land use planning	Urban master plans	Coastal zone plan



3.2 SEA influence on decision making

Success stories of SEA implementation are reported in the countries' self assessment of their SEA status (Table 4). The pilot projects in Turkey and Lebanon have been successful in demonstrating the SEA process, involving stakeholders and recommending changes to proposed plans. In view of their pilot nature, it is not apparent whether decision makers will consider the SEA findings and recommendations in plans. Focused on spatial planning, development SEAs for Al-Aqaba Area and the Red sea were considered successful by the Egyptian Ministry of Environment in broadening available alternatives and foreseeing mitigation measures. In Morocco, a series of agriculture and fisheries' related projects developed within a compact development program administered by the government for five years were reported to present success stories of SEA implementation. In Tunisia and Abu Dhabi, SEAs highlighted unforeseen impacts associated with infrastructure programs that required halting and modifying the programs. The current focus appears to be on mainstreaming SEA and hence it is too early to discuss the influence of SEA on decision making at a stage where decision makers have not yet enacted SEA legislation. Nevertheless, the requirements to include SEA findings in plans (Egypt), and of summarizing SEA outputs and required changes to plans (Lebanon, Turkey) reflect that envisioned SEA systems aim at influencing decision making.

Table 4: SEA impact on decision making.

Country ¹	<i>SEA results incorporated in decision making process</i>	<i>SEA success stories</i>
Egypt	SEA results supported and guided decision making process and improved plans; SEA is included in the plan document	Gulf of Aqaba development plan SEA Red Sea development plan SEA
Israel	SEA integrated in regional development planning processes	Galilee Development Plan
Jordan	SEA are undertaken in parallel to planning process	Red Sea Area Development Plan
Lebanon	SEA influence on decision making is not clear	Tannourine Land use master plan as pilot SEA study
Morocco	Conducted SEAs influence on decision making is not clear	n.a
Oman	Not clear from available information	n.a
Tunisia	SEAs on infrastructure programs urged halting of project	Infrastructure programs; Tunis Gulf Development plans
Turkey ²	Pilot SEAs conducted preceded and helped in SEA legislation drafting.	Only pilot SEAs were done
UAE ³	SEA report should not make recommendations, or conclusions about the proposed plans or programs within the scope of EAD review	Port Khalifa and Al Taweelah Industrial Zone project: SEA induced changes in port location and design

¹Based on surveys; ²Unalan and Cowell [23]; ³Camille Heaton, Strategic Partner of EAD, Abu Dhabi – UAE.

4 Conclusion and future outlook

Countries in the MENA region are at different stages of SEA adoption and implementation; however, they are steadily evolving towards effective SEA systems, albeit very slowly, as is the case in many other places worldwide. Apart from Lebanon, there is no country in the MENA region that has a fully established functional system of SEA. Israel, UAE (Abu Dhabi) and Turkey have a relatively well forming SEA structure, although in Turkey, the interest in initiating SEA processes is highly driven by the desire to access the European Union. Tiering the SEA and planning processes and applying SEA to policies, programs and plans remain a major threat to proper implementation. The other MENA countries are facing threats that might impede and delay the SEA implementation and mainstreaming although it is being increasingly driven by the momentum of developmental projects. The current status in MENA countries also reveals an important gap in the available literature on SEA systems and implementation similar to most developing countries. Hence, this first attempt at evaluating SEA systems in the MENA region, presented through a comparative assessment of SEA status, implementation and processes, is to be followed by focused in depth country analysis including the assessment of cases of SEA studies as well as by assessment of individual country's strengths, opportunities, weaknesses and threats to pave efficient national roadmaps for effective implementation of SEA systems.

Capitalizing on available opportunities, MENA countries are encouraged to enhance the development and enactment of SEA legislation as well as to strengthen the institutional framework for SEA, to compensate for the lack of effective, transparent and systematic planning processes by clarifying the role of relevant authorities, ensuring proper training and capacity building for competent authorities on SEA legal, procedural and technical matters. In this context, specificities in the SEA legislation need to a) include screening and scoping stages in the procedural framework of SEAs and ensure all plans, programs and policies are subject to environmental assessment; b) improve cooperation, communication and coordination between SEA competent authorities and other public agencies for securing an enabling environment for proper SEA implementation; c) initiate SEA application to policies through pilot studies as a step to mainstreaming; d) continuously monitor SEA implementation to improve the process and adapt to decision making requirements; e) improve the quality of SEA reporting to increase the value added to decision making; f) close the gap between theory of SEA and the actual SEA practice in terms of SEA objectives, scope and outputs; and g) close the gap between SEA as an independent tool and decision making through tiering SEA to plan and policy-making processes.

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