

تطبيق مفهوم التقييم البيئي الاستراتيجي لتحقيق التطور العمراني المستدام

الدكتور حبيب بن مهدي الشويخات

أستاذ التخطيط الحضري والتنمية المستدامة

قسم تخطيط المدن والأقاليم - كلية تصاميم البيئة

جامعة الملك فهد للبترول والمعادن الظهران ٣١٢٦٢

email: habibms@kfupm.edu.sa

ملخص

مر عدد من السنوات منذ إنشاء أنظمة وقوانين بيئية عامة في عدد من دول الخليج العربية. والغرض الرئيس من هذه الأنظمة هو ضمان أن تؤخذ الاعتبارات البيئية على جميع مستويات التخطيط مع التركيز على دمج تقييم الأثر البيئي في أنشطة التنمية. ومع ذلك، ثمة حاجة إلى وضع إطار واسع من التقييم البيئي الاستراتيجي لإدماج مفهوم الاستدامة في عملية صنع القرارات التنموية عامة والتنمية الحضرية على وجه الخصوص. ويعرف التقييم البيئي الاستراتيجي بأنه مستوى عال من الإجراءات التي يتم فيها تطبيق المفاهيم والمبادئ الذي يقوم عليه تقييم الأثر البيئي، ولكن عادة ما يطبق التقييم البيئي الاستراتيجي على السياسات والخطط والبرامج والمشروعات. ويوفر التقييم البيئي الاستراتيجي فرصة لتجنب إمكانية إعداد وتنفيذ خطط وبرامج، ومشروعات غير ملائمة. ويضمن هذا المفهوم تقييم بدائل المشروع وتحديد الآثار التراكمية. وتستعرض هذه الورقة التقييم البيئي الاستراتيجي وتناقش الإطار لضمان الاستدامة في التنمية الحضرية والتطوير العمراني وبخاصة على المستوى المحلي. وتضع الورقة مبادئ وإرشادات توجيهية لتطبيق مبادئ الاستدامة في البلديات من خلال التقييم البيئي الاستراتيجي.

Implementation of Strategic Environmental Assessment to Achieve Sustainable Urban Development*

Dr. Habib M. Alshuwaikhat
Professor of Sustainable Urban Planning and Development
Department of City & Regional Planning
King Fahd University of Petroleum & Minerals
PO Box 1632, DHAHRAN 31261 SAUDI ARABIA

e-mail: habibms@kfupm.edu.sa

ABSTRACT

It has been a number of years since the establishment of general environmental regulations in many Gulf States. The main purpose of these regulations is to ensure that environmental considerations are taken into account at all levels of planning with emphasis on incorporating Environmental Impact Assessment in development activities. However, there is a need to develop a broad framework of Strategic Environmental Assessment for proper integration of sustainability into decision-making process. Strategic Environmental Assessment is a high level procedure that extends the concept and principle underlying Environmental Impact Assessment, but normally applied to policies, plans, programs and groups of projects. Strategic Environmental Assessment provides the potential opportunity to avoid the preparation and implementation of inappropriate plans, programs, and projects. SEA ensures the evaluation of project alternatives and identification of cumulative effects. This paper reviews and discusses the framework for ensuring sustainability in urban development particularly at the local level. The paper develops guidelines and framework of implementing the principles of sustainability in municipalities through Strategic Environmental Assessment.

** This article is based on two published journal papers by Alshuwaikhat, H. and others (see References).*

INTRODUCTION

Urban environmental problems are serious threat to the full realization of the socio-economic contribution that cities can make. They also compound inequities, and threaten the sustainability of development achievements (HABITAT, 1998). Congestion, pollution, poor housing, inadequate infrastructure and poverty are visible problems of the cities. Apart from the resource problems within the cities, cities due to their link with the hinterland do cause environmental stress for areas far from the city. The concept of sustainable development has the goal of developing the resources of the city in a way that will minimize externalities.

The Urban 21 Conference, Berlin, July 2000 defined sustainable city as "improving the quality of life in a city, including ecological, cultural, political, institutional, social and economic components without leaving a burden on future generations". The concept is multidimensional, interdisciplinary and interregional. Urban 21 Conference also highlights the role of governmental institutions and agencies (GISD, 2000). Different government and organizations have tried to develop policies and frameworks for attaining sustainable cities. However, there is room for improvement (Satterthwaite, 1997). There is still a gap between the concept and practice of sustainable development at all levels.

The task of evaluating development plans for sustainability involves giving quantitative measures to qualitative concepts of sustainable development. In order to bridge the gap between the theory and practice of sustainability, environmental impact assessment (EIA) has been adopted to incorporate potential environmental impacts of projects in decision-making by using sustainability indicators. The main goal of carrying out environmental assessment of development plan is to ensure that environmental concerns, which had been hitherto given limited consideration, are addressed at the same level with economic and social issues in decision-making. The premise is that if environmental assessment can be incorporated into the planning process itself, the inverse impacts will be less, and the appraisal can be more useful in its application. Application of EIA has so far been mainly

at the project level, while it is increasingly understood that projects are part of “programs” and “policies”. Environmental and other impacts have to be discussed at these more comprehensive levels (Soderbaum, 2000). Strategic Environmental Assessment (SEA) is proposed to overcome the shortcomings of Environmental Impact Assessment (EIA) in evaluating impacts of government policies, plans and programs. SEA focuses on higher level of decision-making and has a broader vision than EIA.

Environmental assessment at the policy, plan and program level is increasingly recognized as a tool that could be utilized by planners in fostering sustainable communities (Partidario and Moura, 2000; Stinchcombe and Gibson, 2001; Noble, 2002; Barker and Fischer, 2003). Research focus has been on the integration of strategic environmental assessment, environmental assessment at the strategic levels of policy, plan and program, into spatial planning. The aspects of planning that are mainly explored for integration with Strategic Environmental Assessment (SEA) are the procedural and substantive (Eggenberger and Partidario, 2000; Elling, 2000; Partidario, 2002; Kessler, 2002; Liang, 2002; Barker and Fischer, 2003). Experiences have shown that SEA procedures and implementation vary in forms depending on local political and institutional contexts (Verheem and Tonk, 2000; Fischer, 2002). However, there are certain elements and principles that make an environmental assessment strategic (Noble, 2000). IAIA (2002) has suggested a number of criteria that are fundamental to an ideal SEA system – integrated, sustainability-led, focused, accountable, participative and iterative. The criteria for quality SEA tend to be based on the procedural approach. Although Stratford and Jaskolski (2004) have argued that focus should be shifted to the substantive dimension, other authors (Fischer, 2003; Dalkmann et al., 2004; Noble, 2004) noted that procedural mechanisms are still relevant. Even Fischer (2003) suggested that the rational process of SEA should not be discarded in post-modern times.

Apart from incorporating environmental issues in policy and decision-making, SEA has been recognized as a means of giving consideration to social and economic issues as well. Thus, different terms (Sustainability Threshold Assessment, Strategic IA, Sustainability Appraisal, Strategic Environmental Analysis, and so on) have been used to

depict sustainability-driven SEA (Kessler, 2002; Carroll, 2002; Partidario, 2002). Devuyt (1999) suggested two possible ways to introduce sustainability principles in impact assessment: a) introduction of sustainability principles in the existing EIA and SEA legislation and guidelines or b) development of a separate system for sustainability assessment. The best option will depend on the specific situation of the region as it is generally accepted that there is no fixed set of approaches to sustainability. A good SEA process can benefit planning and decision-making by improving the planning process (Partidario, 2000), avoiding unnecessary environmental, social and economic costs (Partidario, 2000), widening consideration of impacts and alternatives, ensuring participation of the citizen and complementing project-EIA.

It is still debatable whether widening the scope of SEA to include economic and social issues will actually promote sustainability or jeopardize adequate consideration of environmental concerns. This debate could shed more light into the basis for distinguishing between SEA and sustainability appraisal (SA). Nooteboom and Wieringa (2000) adopted the view that SEA has a narrow environmental focus while Stinchcombe and Gibson (2001) argued that SEA could be comprehensive and broad enough to encompass socio-economic issues. In this paper, we will be using SEA in its broad sense focusing on environmental and socio-economic issues with the scope of direct and indirect policies at the sectoral, regional and national levels. Arguably, an SEA system that is comprehensive in focus could be similar to sustainability appraisal in ensuring sustainable development. However, sustainability-led SEA should be implemented in a manner that environmental concerns will not be neglected altogether thereby promoting business-as-usual scenario.

Strategic Environmental Assessment (SEA) has been recognized as a powerful means of promoting and operationalizing sustainability at national, regional and local scale (Dalal-Clayton & Sadler, 1999; Noble, 2000; Stinchcombe & Gibson, 2001). SEA was proposed to overcome the shortcomings of Environmental Impact Assessment (EIA) in evaluating impacts of government policies, plans and programs. Application of EIA has so far been mainly at the project level, while it is increasingly understood that projects are part of

“programmes” and “policies”. Environmental and other impacts have to be discussed at these more comprehensive levels (Soderbaum, 2000). EIA is project-specific and reactive and its goals and objectives are predetermined (Dalal-Clayton & Sadler, 1999). SEA on the other hand is focused on higher level of decision-making and has a broader vision than EIA. There exists some reservation about the blanket application of SEA for sustainable development. Devuyt (1999) noted that little progress has been made on how exactly to introduce sustainable development issues into SEA. Different attempts have been made to incorporate the principles of sustainability into SEA (Devuyt, 1999 and Smith & Sheate, 2001) and SEA is still generally accepted as a means of incorporating sustainability into decision-making process.

Many Gulf states have recently inaugurated a General Environmental Code . The purpose of these regulations is to ensure that environmental considerations are taken into account at all levels of planning. The Environmental Code establishes the standards for controlling toxic and hazardous waste and for water quality. The framework for environmental assessment is similar to incorporating EIA in development activities. There is needed to make the framework broader and more robust to the level of SEA. This has implications for cities and municipalities in Gulf states because more than 85% of the population is urbanized.

SUSTAINABLE DEVELOPMENT AND EIA/SEA

Sustainable development was defined by the World Commission on the Environment and Development (1987) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Since then different attempts have been made to redefine and operationalize the concept. The Canadian Public Health Association (1991) gave a definition that broadens the concept: Human development and achieving human potential require economic activity that is socially and environmentally sustainable in this and future generations. This definition includes the concepts of human development and social sustainability as goals of

sustainable development. Concepts such as healthy cities and social cities emerged from various attempts to broaden the notion of sustainability.

The Rio Summit adopted Agenda 21 to further the debate on implementing the concepts of sustainability. Principle 17 of Agenda 21 highlights the need for impact assessment of development activities as it states that “Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority” (UN, 1993). Agenda 21 further suggests that analytical procedures for assessment of decision-making should be adopted. The procedures should extend beyond the project level to policies and programmes including assessment of costs, benefits and risks. Although EIA (Environmental Impact Assessment) had been introduced in the USA prior to the Summit, the declaration serves as a major international effort to incorporate environmental concerns into decision-making.

EIA is to ensure that environmental consequences of projects are identified and assessed before implementation. The principal stages in the process of EIA include screening, scoping, assessment of proposed project, monitoring of implementation and auditing. Experiences with EIA have shown that the environmental impacts of government policies, plans, and programs are not always subjected to EIA. SEA is proposed to incorporate environmental assessment at higher levels of decision-making. It is intended to complement the environmental impact assessment of projects that take place at later stage of policy making and planning process. A sizeable number of countries and organizations especially within the European Union have incorporated SEA into their decision-making process (EIA Center, 1995).

The procedure of SEA and EIA seem to be identical as they follow the same principles. However, efforts have been made to distinguish between the two and to develop a SEA procedure that is not based on project-level EIA. Therivel and Partidario (1996) defined SEA as “formalized, systematic, and comprehensive process, that evaluates environmental impacts at strategic decision making levels (that is, above the project level), considers alternatives, includes a written report on the findings of the evaluation,

and uses these findings in publicly accountable decision making.” The definition makes a distinction between SEA and EIA through the levels of decision-making. Recently, Noble (2000) suggested a definition that shed more light on “strategic” in the SEA term: “SEA is the proactive assessment of alternatives to proposed or existing PPPs, in the context of a broader vision, set of goals, or objectives to select the best alternative(s) to reach desired ends”. The definition is broader by suggesting the types of strategic actions (policies, plans and programs) to which SEA should be applied. SEA is described as proactive, goal oriented and non project-specific.

Since the emergence of SEA as decision-making tool, experts have tried to use it to operationalise the concept of sustainable development. It is argued that SEA should focus on sustainability by covering social and economic issues. Devuyst (1999) suggested two possible ways to introduce sustainability principles in impact assessment: a) introduction of sustainability principles in the existing EIA and SEA legislation and guidelines or b) development of a separate system for sustainability assessment. The best option will depend on the specific situation of the region as it is generally accepted that there is no fixed set of approaches to sustainability. By and large, the implementation of SEA at a high level of decision-making can support a formulation of actions that promote sustainable development.

SEA AT MUNICIPAL LEVEL: FOSTERING SUSTAINABLE CITIES

Since policies, plans and programs are formulated at high-level of decision-making; SEA tends to be applied at the national, regional and sub-regional scales. Experiences have shown that most SEAs were applied at the municipal/regional or city level (Devuyst, 1999, Fischer et al. 2002, Dalal-Clayton & Sadler, 1999). It is no coincidence that these are the same municipalities that are involved in developing a Local Agenda 21 (Devuyst, 1999). The need for local authorities to develop their own Agenda 21 is highlighted in Chapter 28 of Rio declaration. The local authorities play vital role in establishing local plans, environmental policies and regulations. Local authorities also assist in

implementing national and sub-national plans and programmes. The basis of Local Agenda 21 initiative is that local communities could help in fostering sustainability by adopting the principles of sustainable development. Since the usefulness of impact assessment in implementing the principles of sustainable development has been recognized, local authorities need to incorporate SEA into their policies, plans and programs.

The adoption of SEA by local authorities has to be carried out with special attention to the cities. Due to the magnitude of socioeconomic activities and population densities in the cities, the implementation of SEA at the municipal level could promote sustainability. Most of the policies, plans and programs that determine city structures and activities are either proposed or implemented by the municipalities. It should be noted that policies are enacted at the national level. Therefore, a process of implementing SEA at the municipalities should take the tiered and multilevel nature of policies, plans and programs.

An impact assessment system for the municipal level cannot be detached from other impact assessment at the national, federal and /or regional levels of government (Devuyst, 1999). Policies, plans and programs (PPPs) can be portrayed as a tiered forward planning process starting with the formulation of a policy, followed by a plan, and a program (Noble, 2000). This implies a hierarchical sequence of actions. Policies are formulated at the high-level of decision-making followed by policies, plans and programs enactment and implementation at the lower levels. The tiered system of SEA ensures that impacts of development decision-making can be addressed at the appropriate level(s) and with degree of effort necessary for informed choice (Sadler & Verheem, 1996). In practice, the process of formulating policies, plans and programmes is not always “top-down”. So, the SEA process should be flexible enough to accommodate PPPs that may develop from “bottom-up” process. In fact, SEA should be a continuous process that leads to a strategy for action within and between levels of decision-making.

CONCLUSION

The Gulf States governments have made some efforts in incorporating the principles of sustainable development into development activities. However, the efforts are limited to the project-level EIA that is coordinated by different environmental agencies in these countries. The introduction of SEA in government decision-making especially at the municipal level will ensure that the principles of sustainability are promoted. This will also lead to the fostering of sustainable cities.

There is need to encourage public participation and consultation of external bodies for the SEA process to be fair, objective and balance. Public participation and consultation will broaden the scope of the SEA and increase possible alternatives and options through feedback. The environmental awareness of the citizen should be enhanced to facilitate public participation. There is also need to enact a legal framework that will guide the implementation of SEA and promote the coordination of different bodies involved in decision-making. Training programs should be implemented to educate personnel on the current procedures of carrying out SEA and developing sustainability indicators. With proper integration especially at the local level, SEA will be useful in fostering sustainable cities.

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