



INCORPORATING SUSTAINABLE DEVELOPMENT OBJECTIVES INTO DEVELOPMENT PLANS

Muhammad Faris Abdullah

*Kulliyah of Architecture and Environmental Design
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA*

Email: faris1@pd.jaring.my

Ishak Ariffin

VIA NATURA (M) SDN BHD

Email: vnsb@po.jaring.m

Abstract

Efforts aimed at delivering sustainable development and promoting nature conservation in the planning and decision-making system in Malaysia has begun since the late 1970s. The growing importance of the preservation and protection of the environment against degradation have been highlighted in the Five Year Plans since 1980s. Over the same period, a series of strategies for sustainability, entitled Conservation Strategies, was also being prepared in Malaysia, culminating in a National Conservation Strategy (NCS) in 1993. These strategies for sustainability were aimed at providing the framework for sustainable development. The general consensus is that prevention is better than remedial action. Potential impacts must be addressed at the planning stage before development decisions are made.

Impact assessment is seen as a tool for preventive action in the quest for sustainable development. Although environmental impacts assessment (EIA) was made mandatory for a list of prescribed activities since 1987, environmental degradation continued. This paper gives brief introduction to strategic environmental assessment (SEA) and tries to demonstrate how SEA can bridge the gaps and counteracts the limitations of EIA and more effectively integrate the sustainable development objectives into the development plan system.

Keywords: Strategic Environmental Assessment, Development Plans, Sustainable Development

INTRODUCTION

Since the introduction of environmental impact assessment (EIA) in Malaysia in the 1970s, environmental assessments (EAs) tools have evolved into a comprehensive and versatile instrument for natural resource planning and management. Other EA tools, such as the cumulative effect assessment (a local variation known as Macro-EIA) and strategic environmental assessment (SEA) have also been introduced in recent years. The EIA looks at project level assessment. Macro EIA deals at cumulative impact assessment. SEA complements the EIA procedures by providing a means to anticipate and prevent impacts at an earlier stage, i.e. at the strategic levels. This paper discusses the application of SEA in integrating sustainable development objectives into development plans in Malaysia. The SEA strengthens the existing development plan system to meet sustainability goals embodied in Agenda 21.

SUSTAINABLE DEVELOPMENT – THE MALAYSIAN CONTEXT

The notion that conservation and development are two sides of the same coin became widespread from the 1970s. One of the earliest initiatives was the World Conservation Strategy, commissioned by United Nations Environment Programme (UNEP), prepared by the World Conservation Union (IUCN), and jointly funded by World Wide Fund for Nature (WWF), in 1980 which led to the State Conservation Strategy projects in Malaysia and other similar initiatives around the world. The World Conservation Strategy defined sustainable development as development that is sustained by conservation. However, the UNCED's 1992 Earth Summit is arguably the event that put the term 'sustainable development' into our everyday vocabulary.

In 1987 the World Commission on Environment and Development (WCED) report, "Our Common Future", widely publicized the term with its most widely used definition, that is, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The report is often referred to as the Brundtland (Commission) Report. It follows a series of initiatives since the 1972 world conference on environment that led to the formation of WCED and the pursuit of integrating environmental concerns with economic and social development. The subsequent "Caring for the Earth" report in 1991, also published by IUCN-UNEP-WWF laid the foundation for the road to Rio's Earth Summit. It contributed to and complements Agenda 21.

While the interpretation of the term 'sustainable development' thus far has been wide ranging, in the case of development and environmental conservation, it introduces the idea that development and environmental conservation are symbiotic – one is supposedly benefiting the other. In other words, it opposes the orthodox perception and belief that environmental degradation resulting from development is inevitable, and it proposes the need to find a point of balance between the need to develop and the need to conserve the environment.

Sustainable development simply means improving the quality of human life while living within the carrying capacity of supporting ecosystems. The foundations of sustainable development are respect and concern for people and ecosystem. Development is likely to be sustainable if it improves the quality of human life and it conserves the vitality and diversity of the world's natural system.

Sustainable development is one of the major challenges facing our society today. How and where we live, work, and play put pressures on our natural resources. Some progress has been made through agreements on Agenda 21, Montreal protocols, greenhouse gas targets, biodiversity convention, and other spin-off initiatives of UNCED. However, despite all these efforts, environmental degradation has intensified in the post-UNCED years. In consequence our towns and cities have become more congested; our air and water polluted, our waterways silted and the quality of the environment worsen.

The planning system plays a vital part in promoting more sustainable land-use patterns and use of these resources. The series of development plans prepared at different levels of Government, whereby each has an impact on our natural resources, and the plans higher up in the hierarchy influence the subsequent decisions made. Therefore, it is essential that we ensure that sustainable development objectives are already tightly integrated into the economic and social objectives of the plans at the highest level.

Malaysia is actually a long time supporter of environmental protection. The history of environmental protection in Malaysia can actually be traced back long before the Rio Summit. Khalid (1991) reports that environmental protection and awareness in Malaysia could be tracked back to the early 1920s with the passing of the Water Enactment 1920. The earliest form of environmental control in this country was introduced in Kuala Lumpur in 1884. A series of regulations were introduced during the rebuilding of Kuala Lumpur which was almost totally ruined by a major fire and subsequently severe flooding in 1881. Within two years of the 1884 regulations, Kuala Lumpur was transformed from the dirtiest and most disreputable 'shanty town' into the

neatest and prettiest town in the then Malaya. Since then, various other environmental-related acts, rules, and regulations have been passed. Jamaluddin (1997) identifies to date there are at least 46 environmental-related legislation being enforced in Malaysia.

More recently, efforts aimed at delivering sustainable development and promoting nature conservation in the planning and decision-making system in Malaysia have been included and emphasized in various plans and policy documents. The growing importance of the need to preserve and protect our environment against degradation has been highlighted in the Five-Year Plans from 1970s. The Third Malaysia Plan (1976-1980) and the Environmental Quality Act 1974 laid the foundation for a coordinated environmental management by a single government agency. As a result, the Department of Environment and the Environmental Quality Council were established.

The general consensus is that prevention is better than remedial action. Potential impacts of development plans must be addressed at the earliest stage before development decisions are made. The Fifth Malaysia Plan (1986-1990) stressed the need to incorporate preventive environmental actions into development process, pointing out that remedial action is much less effective. It clearly emphasized that conservation should be part of the overall development process and not considered in isolation. The concept continued to be emphasized and the implementation strategy further refined in the subsequent Malaysia Plans.

Over the same period, a series of strategies for sustainability, entitled Conservation Strategies, was also being prepared in Malaysia. Conservation Strategies were prepared for ten states, including the Federal Territory of Kuala Lumpur, culminating in a National Conservation Strategy (NCS) in 1993. The Conservation Strategies translated the principles of sustainable development as contained in the 1980 World Conservation Strategy document produced by IUCN-UNEP-WWF and subsequently the 1987 Brundtland Commission (WCED) Report. The NCS was commissioned by the Economic Planning Unit (EPU), a multi-sectoral agency in the Prime Minister's Department, and was targeted for implementation under the Sixth Malaysia Plan (1991-1995). These strategies for sustainability were aimed at providing the framework for sustainable development.

The economic downturn in this region during the late 1990s gave us a refreshing pause to reflect our errors in the preceding decade. The Government has embarked on a more concerted effort to make more sustainable plans and local authorities are integrating sustainable development into their development plans. Some of the notable examples are the Sustainable Development Strategy

and Agenda 21 Selangor initiated by the Selangor State Government, the pilot study on application of SEA on Local Plan for Areas Surrounding Paya Indah Wetland Sanctuary, the UNDP funded pilot Local Agenda 21 (LA21) programmes and other LA21 initiatives implemented by a number of selected local authorities around the country. As a part of the effort towards sustainability, the longer term and secondary effects of development need to be recognized. The ultimate aim is to implement the principles of sustainable development.

THE MALAYSIAN DEVELOPMENT PLAN SYSTEM

The Town and Country Planning Act 1976 introduced a uniform system of town and country planning in Peninsular Malaysia. The Act ensures the proper control and regulation of town and country planning in local authority areas in the various States of Peninsular Malaysia. Two recent amendments introduced significant changes to the Act. Amendments introduced by the Town and Country Planning (Amendment) Act 1995 strengthened its environmental management objective in planning for sustainability. The 1995 amendment provides added protection for trees and natural topography. A more stringent set of regulations for development control was introduced, notably, the requirement for Development Proposal Report to be submitted with planning applications. Environmental management plan is made part of the requirements in the Development Proposal Report. EIA approvals are also required for projects which are "prescribed activities", under the provision of Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987, before planning permissions are granted.

The latest amendment in the Town and Country Planning (Amendment) Act 2001 introduces a revised format for the development plans hierarchy. The previous two-tier system now becomes a three-tier system with a series of Plans that covers the nation, the individual states and the districts. At the top of the hierarchy is the National Physical Plan (RPN), then the State Structure Plans (RSN) and followed by District Local Plans (RTD). Besides the newly introduced RPN, the form and functions of the RSN and RTD is similar to the old Structure Plan and Local Plan. RSN are strategic documents outlining the policies and intention of the state authority for a period of 15 to 20 years. RTD translate these policies into more specific land use proposals for implementation. The major difference is the area covered by the plan. The preparation of the first round of the new development plans has been recently commissioned.

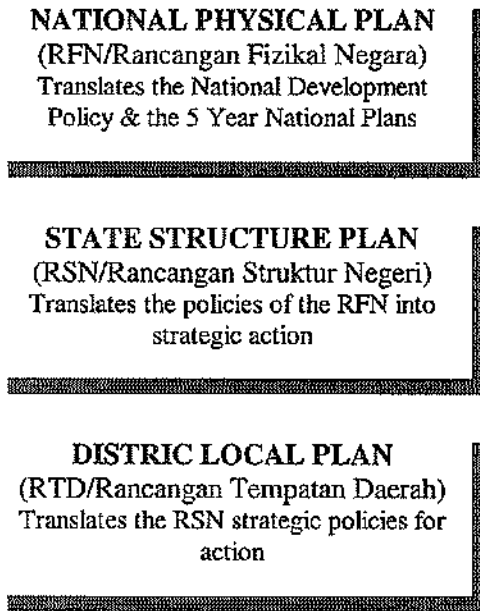


FIGURE 1: Three-tier National Development Plan System

Another significant feature of the new development plans is the additional requirements for impact assessments to be integrated with the process of plan preparation. SEAs are now incorporated into the RSN preparation process and social assessments (SAs) are included for both RSN and RTD studies. As for RTD preparation, the requirement for SEAs on RTDs is subject to the decision of the authority in charge of RTD preparation. Some RTDs are subjected to such assessment depending on local planning authority areas the Plans are being prepared for. The impact assessments are carried out as an integral part of plan preparation. This new requirement emphasises the goals of sustainable development in integrating the environmental needs with the socio-economic objectives of the Plans. Stakeholders' participation and input become an integral part of the planning process.

THE NEED FOR ENVIRONMENTAL ASSESSMENT OF DEVELOPMENT PLANS

The development plan system represents an integrated approach to planning for land use development. The major objectives of the plans are primarily economic, social and environmental sustainability. Nevertheless, the approach

in plan preparation has resulted in plan documents that are tailored more towards economic and social development based on the assumption of continuing growth. The land use strategy has been too focused on how much land is available for future development needs. The issues that were addressed in the plans are geared towards meeting the need of a growing population base, such as the projected number of houses to be built, the amount of commercial and industrial space to be allocated, road construction and expansion, and the amount of recreational space and supply of utility services required to cater for the anticipated growth.

Environmental concerns have been treated as a sector by itself and addressed issues relating local environmental quality, namely pollution mitigation, waste management, landscape enhancement and access to open space. Conservation measures are concentrated on protection of existing natural areas and environmentally sensitive sites. Global environmental issues (such as emission of greenhouse gases, biodiversity protection and energy consumption) or natural resources utilization issues (such as water consumption and waste generation) are often not adequately addressed. Landscaping recommendations cater more for aesthetic treatment and beautification instead of habitat improvements or regeneration of degraded landscape.

Despite the inclusion of stronger environmental management objective introduced by the Town and Country Planning (Amendment) Act 1995, development strategies and proposals of development plans continue to fail, in most cases, to include solid environmental conservation objectives. As a result, subsequent implementation of the strategies and proposals leads to development projects that can impose adverse impacts on the natural environment. Therefore, there is a need for development plans to be subjected to assessment on their impacts on the environment. Subjecting development plans to environmental assessment can ensure the environmental integrity of the plans. The underlying principle for doing this is that once the plans themselves are environmentally robust, then actions and projects flowing from them should accordingly be environmentally acceptable.

In summary, the general process of development plan preparation has been geared for continued economic growth and is not adequately adapted for sustainable development. An additional mechanism for assessing the environmental implications of the planned development strategies and proposals is, therefore, needed. The economic downturn of 1998 highlighted the glaring weaknesses in the "land availability" and "continuing growth" approach. The measures introduced by latest amendment to the development plan system and the requirement for impacts assessments in their preparation aim to ameliorate

the shortcomings of the old Plans. Initial enthusiasm shown by the various parties involved in preparing the new round of Development Plans is indeed promising. The outcome can only be assessed in the next couple of years when the first batch of the new generation of Plans are completed and gazetted.

ENVIRONMENTAL ASSESSMENT AS A TOOL TOWARDS SUSTAINABLE DEVELOPMENT

Environmental assessment (EAs) may mean a number of things. In the USA, it refers to a document presenting enough information to allow for a decision to be made on whether a development merits a full EIA. In this paper, we defined EAs in a more general context of impact assessment procedures that are employed to present accurate, critical and objective assessment of likely effects of a development, as well as providing more information of the nature of impacts and measures to mitigate them. We may use the term interchangeably with 'impact assessment' in the text.

Environmental assessment is seen as a tool for preventive action in the quest for sustainable development. The underlying wisdom of EAs is the concept that it is better to prevent a problem than to cure it. Although environmental impact assessment (EIA) was made mandatory for a list of prescribed activities since 1987, environmental degradation continued. This is not to say that EIA is not an effective tool but there are some issues that cannot be addressed by the EIA process. Some of its shortcomings can be overcome through a cumulative approach in impact assessment. However, they are still done at the project level where the decisions on the alternative option have been made. There is a need for an additional tool that can enable us to assess the various alternatives available and this is often only possible at the strategic level. This paper tries to demonstrate how strategic environmental assessment (SEA) can bridge the gaps and counteracts the limitations of EIA and more effectively integrate the sustainable development objectives into the development plan system. With a hierarchy of development plans, we need a hierarchy of EA tools to ensure sustainable development and use of our natural resources.

ENVIRONMENTAL IMPACT ASSESSMENT – PROJECT LEVEL ASSESSMENT TOOLS

In Malaysia, the EIA process was implemented through administrative procedures between 1979 and 1987. Malaysia has been quicker to adopt and adapt the EIA than many developed countries. EIA became mandatory for

certain prescribed activities after the Environmental Quality (Prescribed Premises) (Environmental Impact Assessment) Order 1987 was introduced.

The Department of Environment has taken a number of measures to strengthen the quality of EIA implementation. The most notable weakness in the early years when EIA laws came into force was the variable quality of the EIA reports submitted. It was a learning process and the quality of reports is now becoming more consistent. The reports were frequently prepared and submitted at a very late stage in the decision making process (Ibrahim, 1992). It was partly due to the poor acceptance of the EIA process by project proponents who failed to see the value of the exercise. Preparing an EIA report was seen as a formality that incurred additional costs to the project proponents. Stricter enforcement efforts on the part of the authority have led to greater acceptance of the EIA process. EIA reports are now being prepared together with development proposals.

Nevertheless, a decade of rapid urban expansion that took place between the mid-1980s and 1990s highlighted the deficiencies of EIA system as a tool for sustainable development and natural resource management. Environmental qualities of urban areas, particularly around the Klang Valley continue to deteriorate. High suspended particulate, dust pollution, noise, flash floods, siltation of waterways, loss of habitats and species extinction are some of the adverse effects seen.

A United Nations Environment Programme report argued that the EIA process has not played a significant role in reducing the serious global and regional environmental problems caused by economic growth (Bisset, 1996). Scales and rates of environmental deterioration and resource depletion are more significant now than when EIA was introduced in the 1970s. It is also apparent that the EIA process that is conventionally applied to projects is not capable of addressing these problems fully. Hence, there is a need to adopt more pro-active and integrated approaches that deal with the multiple causes of environmental degradation. The causes have been traced to higher level initiatives such as government macro economic policies, development plans, programmes and strategies.

The EIA process, on its own, has not been an effective instrument for sustainable natural resource management. The limitation is due to EIA being carried out at the relatively late stage in decision-making to address issues which are more strategic in nature. The options available to the project are already limited by this stage. We are often left with a narrower choice of alternatives for the option that we have chosen. Environmental problems arose

despite having a planned development which individually satisfies the environmental and local planning standards.

At project level EIA, it is difficult to evaluate impacts that may result from indirect and induced activities emanating from a major development. It is also difficult to assess alternatives that have been eliminated by decisions at the higher, strategic level of policy and plan making. Cumulative effects and impacts stemming from actions that normally fall outside project level EIA procedures (e.g. the combined impacts of individually small projects or impacts of technological advances) cannot be adequately addressed.

CUMULATIVE EIA - CUMULATIVE OR COMBINED IMPACTS ASSESSMENT

The cumulative EIA, or macro-EIA, as it is known here (otherwise also known as cumulative effects assessment or cumulative impact assessment) was introduced recently in an attempt to arrest the limitations of individual project EIA. A macro-EIA is the assessment of the combined environmental impacts of a number of different projects within the same geographical area or within the same economic sector. Macro-EIA is an attempt to deal with the implications of multiple projects in the context of project-by-project EIA system. It is based on the recognition that the impacts of individual projects can interact with each other to bring about combined impacts that may be different in character or scale from the impacts of each project by itself.

Although macro-EIA emphasises the importance of the assessment of combined impacts of individual development actions within a defined area and over a specified period, it is still carried out at the project implementation level of the development process. The approach is closely tied to specific projects to initiate its use, and thus, its application is still limited. It would be more effective, therefore, to apply the EIA principles in decision-making process at higher level initiatives such as policies, plans and programmes that give rise to individual projects.

It is too early to gauge the effectiveness of macro-EIA process. To date, only a few reports have been prepared. Furthermore, macro-EIA is a procedural, not statutory requirement. It has been prepared at the directive of the Authority, not because it is a legal requirement.

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) – STRATEGIC LEVEL ASSESSMENT

SEA, also referred to as environmental appraisal, is essentially an environmental assessment of strategic actions. It is an analysis and evaluation of the environmental effects of a proposed policy, plan or programme (PPP). In practice, the line that differentiates between PPPs is rather unclear. Nevertheless, one may view a policy as the guidance and incentive for action, a plan as a set of coordinated and timed objectives for the implementation of the policy, and a programme as a set of projects in a particular area (Therivel & Partidaro, 1999). It is a 'top-down' strategy to ensure that environmental consequences are considered together with economic, social and development implications of a proposed PPP.

SEA has been widely accepted in principle and it addresses the global concern that environmental impacts of human actions are cumulative and occur at a larger scale (global, regional or trans-boundary). SEA is an instrument to promote sustainability that can meet what the Brundtland Commission proclaimed the chief institutional challenge of the 1990s, which is, considering the "ecological dimensions of policy at the same time as economic and other dimensions". SEA is a process that can facilitate our efforts to fulfill the goals of Agenda 21. Although there is no internationally agreed definition of SEA or guidance on how it should be conducted, there is a consensus on the need for SEA (Bisset, 1996).

Government policies, plans and strategies have been identified as potential sources that contribute to the problem. Therefore it is more prudent to address the issues at their outset that is preventing environmental damage at source instead of only treating the symptoms or impacts at project stage. Hence, the need arises for an avenue to ensure that environmental concerns are taken into account at the earlier stages of policy, plan and programme process. SEA ensures that environmental considerations are suitably addressed at the earliest possible stage, i.e. at the same level with economic, social and other considerations. It is intended to complement the process of EIA, which takes place at a later stage of the development process.

Generally, there are three main types of PPPs:

- sectoral PPPs which are related to specific sectors, such as industry, transportation, river catchment management, tourism and housing ;
- area-based PPPs, which covers all activities in a given area, such as land-use plans, structure plans, local plans, economic or regional development plans and wetlands management; and

- “indirect” PPPs which do not give rise to projects but nevertheless have a significant environmental impact, such as privatization, trade agreements, laws and regulations.

As PPPs are tiered, so are SEAs, with higher tier SEAs setting the context for lower tiers SEAs, which in turn set the context for project EIAs. Table 1 below shows the examples of tiers of SEAs and PPPs with special reference to Malaysian development plan system.

TABLE 1:
Examples of Tiers of SEAs and PPPs

Level of Government	Malaysian area-based plans (SEA)	Category of action and type of assessment (in bracket)			
		Policies (SEA)	Plans (SEA)	Programmes (SEA)	Projects (EIA)
National/ Federal	National Physical Plan	National transport policy →	Long term national roads plan →	5-year road building programme →	Construction of expressway section
		National economic policy ↓			
Regional	Regional development plan		Regional strategic plan ↓		
State	State structure plan			State investment programme ↓	
Local	District local plan				Local infrastructure project

Source: Adapted from Barrow (1997).

Note: Regional development plan is not part of the national three-tier development plan system, but included in the table to portray continuity in the application of SEA.

The idealised inter-relationship between policies, plans and programmes occurs in a hierarchical decision-making process. In reality it may not follow a straightforward step-by-step sequence. Early decisions made at one PPP level (e.g. policy) set the structure for subsequent level of decisions, i.e. another PPP (e.g. plan). Thus, there is a “tiered” system of PPPs. A national PPP set the context for a regional or local PPP; and a strategic PPP influences a more specific PPP.

COMPARISON BETWEEN SEA AND EIA

There is a significant difference in focus between SEAs and EIAs (Table 2). SEA focuses on the environmental opportunities and constraints to development whereas EIA focuses on the effects of development on the environment. The purpose of SEA is not to replace the decision-making process. It is to provide the fundamental information at the appropriate stage of the decision-making process and to integrate the concept of sustainability into the decision-making process.

TABLE 2:
Comparing SEA and EIA

EIA	SEA
Is reactive to a development proposal	Is proactive and informs policies, plans and programmes
Assesses the effect of a proposed development on the environment	Assesses the opportunities and constraints which the environment places on development
Addresses a specific project	Addresses areas, regions or sectors (e.g. the Forestry or Mining Sector) of development
Assesses direct positive and negative impacts of a particular project	Assesses cumulative impacts and identifies implications and issues for sustainable development
Focuses on the mitigation and prevention of impacts	Focuses on sustaining a chosen level of environmental quality
Narrow perspective and a high level of detail	Wide perspective and a low level of detail to provide an overall framework against which positive and negative impacts may be measured.

Source: CSIR (1999)

Land use planning requirements have many elements in common with the SEA procedures. Both procedures require identification of the issues, public participation, review of the draft documents, and submission to a decision making process. The missing SEA element is a thorough assessment of their environmental impacts.

SEA process acts as an early warning system to anticipate and prevent cumulative effects and global environmental changes. It is a tool for policy makers and planners to facilitate early discussion of environmental issues identify cumulative impacts of broad public plans and programs that may not be apparent from project level EIA. Therefore, environmentally friendly options can be chosen in policy making.

By subjecting development plans to SEAs, the objectives of sustainable development can be easily incorporated into the development strategies and proposals of the plans. The SEA process puts sustainable development at the base of plan preparation process. It can be integrated firstly into the National Physical Plan (RFN) preparation stage, and subsequently, the State Structure Plan (RSN), followed by the District Local Plan (RTD). The result will be a greater emphasis on identifying environmental objectives and indicators that will form a basis for subsequent monitoring of the plan's environmental performance.

SEA will consider a range of environmental components and predict the likely future environmental impacts resulting from the application of a plan or programme. It is also act as an instrument for gaining more information for decision-making and to facilitate conception of environmentally sustainable policies and plans. The outcome of the impact assessments will be documented and thus, making the planning process more transparent to the public.

CONCLUDING REMARKS

The new development plan system provides a great opportunity to integrate sustainable development objectives at the various levels of decision-making process through the application of environmental assessment tools. In theory, the current efforts should assist us in deriving development plans, which provides the best compromise between the economic, social and environmental needs. Hence, progress and development can be achieved without significant adverse impacts.

The present shortcomings of the EIA process can also be rectified with the newly introduced SEA process. With the integration of the SEA process into land use development plan preparation, we should expect greater move towards achieving sustainable development. But it is all very early to derive any meaningful conclusion because both the SEA and the new development plan system are only beginning to be implemented. However, SEA shows a lot of promises as a tool that complements project level EIAs.

In practice, the SEA is at present a relatively new concept but it is widely accepted in principle. A growing number of countries and international organisations have established formal processes for strategic environmental assessment of policies, plans and programmes. Mandatory SEA provisions that have been introduced by some countries contain features, which broadly correspond to those found in project-level EIA. Some elements of a more limited form of environmental evaluation have also been incorporated into their planning procedures. It is still debatable whether we need to introduce SEA as an administrative or a legal instrument. We will have to consider where SEA will be applied and how it will be monitored. Case studies from European experience have shown that SEA can be effectively used without it being made a mandatory legal instrument.

The strength of the SEA as a tool for environmental assessment lies in its application at the strategic decision-making level. The success of SEA depends very much on the commitment of the authority that commissions it. Experience from an SEA pilot study on a local plan in Selangor has shown some positive effects from the overall exercise of plan preparation. It was a learning process for everyone involved, from the consultant study team, the project management team of the authority and the various agencies, including NGOs, involved in the technical committee. The plan preparation team working closely with the SEA team has yielded a Plan with minimum potentially damaging impacts even in its first draft. The key success in this pioneering effort is integration, not just of the plan preparation and SEA process, but also of the team members involved right from the beginning of the project.

The success of SEA as a tool for environmental assessment will be evaluated by how well the development plan can be implemented. We need to evaluate whether the plan encourages a move towards a more sustainable pattern of development and natural resource utilisation.

A further tool which is a significant part of the EA process is monitoring and audit. Monitoring progress is an essential part of the planning process. However, there has not been sufficient commitment made in the effort to

monitor the effects of development plans as they are implemented. Monitoring is fundamental in SEA to ensure that the programmes implemented are consistent with the objectives of the development plan and sustainable development. Monitoring in EIA ensures compliance with the conditions of plan approval and the environmental standards. In simple terms, monitoring helps us to evaluate what we have done and learn something from it to help us do better next time. Similarly, a formal monitoring process should be incorporated into the development plan system to enable a consistent methodology of plan performance evaluation to develop.

SEA is undoubtedly a useful tool in integrating the objectives of sustainable development into development plans. Its effectiveness will depend upon how the tools are utilised in the decision-making process, and how well the plans can be implemented and its impacts monitored. Ideally, SEA should be applied at the various levels of decision-making process. SEA should also be iterative. Only then will it ensure that the objectives of sustainable development are embedded into the development strategies and proposals of the plans. It will ensure that our drive towards progress and development are balanced with our need to conserve and preserve the natural environment. It will ensure that our development plans help to improve the quality of human life and conserves the vitality and diversity of the Earth's natural system.

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