

CHAPTER 1

Introduction: Sustainable Asia 2005 & beyond – objectives, questions, conceptual challenges and structure

Providing policy analysis and advocating future actions for promoting better environmental management and sustainable development

Objectives of the IGES White Paper

The Institute for Global Environmental Strategies (IGES) was established in 1998 to undertake leading-edge policy research and to provide policy-makers and other stakeholders with up-to-date analyses of strategic and policy options for sustainable development with a particular focus on the Asia and Pacific region. This publication “Sustainable Asia 2005 and Beyond: In the pursuit of innovative policies” is broadly in the form of a policy document and, as such, is presented as a “White Paper.” It represents a first attempt to consolidate some of the principal outcomes of IGES studies and to provide an initial framework of policy and strategic choices. IGES will aim to produce similar and updated products on a regular basis.

The specific objectives of the White Paper are:

1. To take stock of the current environmental and economic situation in Asia and to assess whether the current trajectory is approaching a sustainable course, given expected population growth and economic expansion;
2. To review major policy measures already in place in Asia that aim to bring about economic, social and environmental sustainability; and,
3. To present, specifically for Asian countries, a number of broad policy choices and directions to promote sustainable development.

The Asian context

At least since 1972, when the first global summit on the environment and development was held in Stockholm, Sweden, world leaders have regularly pledged commitments to bring together the interests of the environment with the interests of economic growth. The latest major pledge of this nature is to sustainable development and is found in the Johannesburg Plan of Implementation (JPOI) which was promulgated in August, 2002 at the World Summit on Sustainable Development.

Asia is the largest and most populous region in the world and the JPOI declaration clearly cannot be fulfilled without Asia. Asia, however, confronts daunting challenges for the achievement of sustainable development. In most parts of Asia, there are formidable pressures on policy-makers to achieve and maintain high rates of economic growth in order to ensure societal cohesion, to meet the needs associated with population growth and to address the tragedy of widespread poverty found throughout the region.

As will be seen in this publication, many response measures in the form of new policies and implementation strategies to address sustainability issues have been already taken in Asia. Although some of these have been measured as successes in environmental terms, most have been based on the “pollute first and clean up later” approach and their results have been mixed at best.

This situation raises a number of questions that are fundamental to the future of Asia and its citizens, especially given that over half the world's population lives in Asia.

- Can the already thin natural resource base in Asia sustain the combined pressures of continuing population growth and economic expansion?
- What is required to move beyond the currently dominant “wait and see” and “pollute first and clean up later” framework? To what extent can new measures be compatible with rapid economic growth?
- What is the scope for a new collective action? Can a common set of policies be successfully implemented throughout the region to promote sustainable development? Alternatively, are diversified policy sets necessary for each country and locality according to the different local economic, social and cultural conditions?

This publication explores these questions and the issues they raise and, while it does not purport to furnish definitive answers, it hopes to cast some light on the situation and provide a degree of utilitarian guidance in the form of strategic and policy measures to address the situation.

Conceptual challenges

Concerns surrounding sustainable development

The term “sustainable development” has become commonplace since the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. The keystone documents of the UNCED (e.g., the Rio Declaration; Agenda 21) adopted the definition of sustainable development provided in the “Brundtland Report” in 1987, namely, development that “meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987).” But what exactly does this mean? According to Daly and Townsend (1993), the concept of sustainable development may evoke inspiration in many quarters but it is also derided by many as a bad oxymoron when applied to the economy.

There have been numerous attempts since the UNCED to give sustainable development¹ a more precise definition, especially in the academic literature which includes numerous efforts, mainly by economists, to introduce improved conceptual clarity (UNDP and OECD, 2002; Bell, 2004). An important attempt to formulate a pragmatic conceptual framework is found in the “Three Dimensional Model (SDM) (von Stokar et al., 2004).”² This basically postulates three bottom lines, i.e., environment, economy and society, all of which are assumed to be conducive to measurement, to which are added time and north-south dimensions (Fig. 1-1). It highlights the inter-linkage of economic, social and environmental dimensions. The model looks at the synergy among them and stresses that economic development must be achieved with social equity while promoting environmental protection. It has expanded geographical and temporal scales in which development is contemplated. Inter-generational and north-south equity have become major concerns.

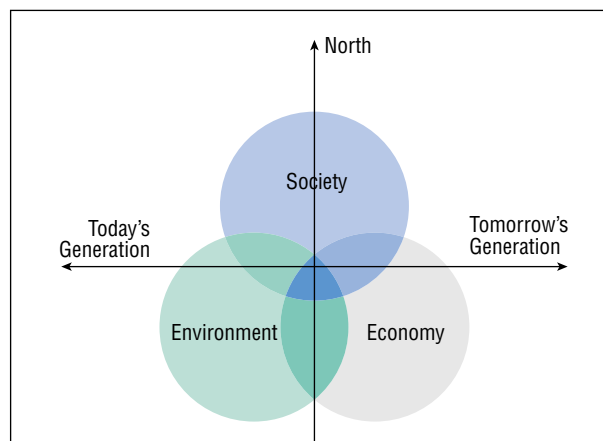
The SDM is beguilingly simple and undeniably attractive in postulating that there are ample opportunities in which the three bottom lines may be simultaneously satisfied (UNEP, 2004). But such an assumption is debatable. The reality indicates that even the economic and environmental bottom lines, i.e., the “win-win” solutions, are most often very difficult to achieve in real life situations. Certainly there exist cases where cost savings are realised through environmental investments. However, such cases do not appear to represent the norm for individual companies. In fact, the reality often requires hard choices, identification of losers and winners and proactive measures to compensate the losers. For example, almost all countries in Asia are faced with requirements for fossil fuel-based power plants to meet the increasing needs of energy for economic and industrial growth.

A second difficult conceptual issue in sustainable development is the notion of inter-generational equity. When a project is designed, how far must one look into the future? Typical cost-benefit analysis may have its scope only up to 20-30 years, given the fact that the costs and benefits in the distant future are significantly discounted. This makes short-term economic gain more important than typically long-term environmental benefits. Although a range of different proposals has been made, this remains an intractable issue on which there is no agreement. The result is that evaluations of investment and development projects generally do not take into account long-term, inter-generational costs and benefits. Without reliable and agreed methodologies, the issues of inter-generational equity become largely rhetorical as non-existent future generations cannot negotiate with the present over resource use.

The idea of sustainable development raises a further conceptual challenge of scope and the problem of a spill-over effect or leakage. Sustainable development is so comprehensive a notion that it almost always demands holistic thinking and the kinds of inclusive analytical methodologies that generally do not exist. It may, for example, be possible to make a forestry project sustainable in one area, but that action may shift unsustainable practices to other areas, other countries or other continents.

Sustainable development, therefore, is a very difficult, problematic and elusive concept. But this does not mean that it should be abandoned. Rather, it is important to try to introduce greater clarity and precision into the concept, to work through the dilemmas and contradictions and not to fall into the trap of thinking that, because we cannot be sure that sustainability is possible, there is no point in doing anything to try to reconcile the imperatives of preserving the environment and improving living standards. It is equally important to recognise that there are appropriate policies that can address these critical concerns at least to a certain extent. What is required of Asia is innovative thinking to devise new and effective policies.

Fig. 1-1: Three dimensional model

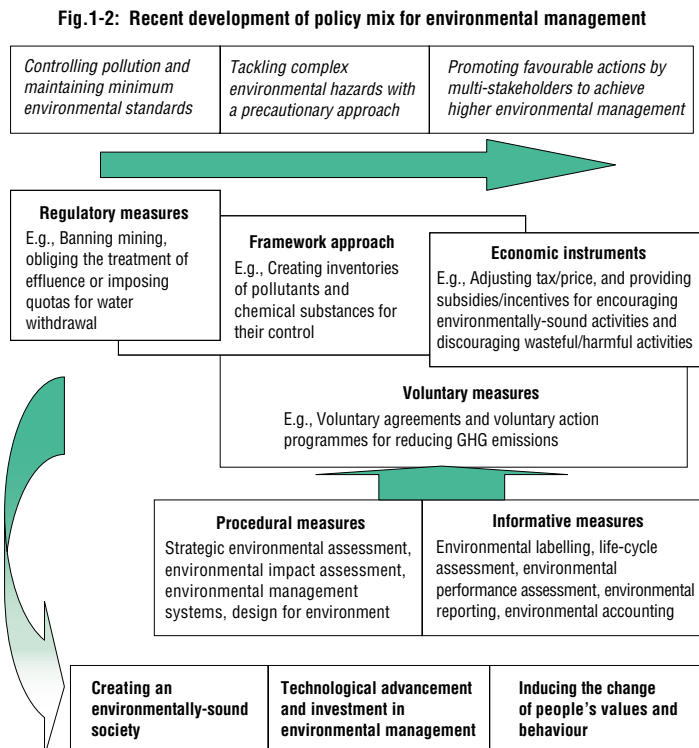


Source: von Stokar et al.

Concerns about policy mix: more complication or sophistication?

In general, it may be said that the initial emphasis of environmental policies in most countries has been on command and control measures of regulation and enforcement aimed at controlling and punishing excessive polluters and reckless developers. Environmental issues have now become so pervasive, however, that the command and control approach alone cannot begin to meet the magnitude of the challenges (Mirovitskaya et al., 2001). The scope of environmental policies has accordingly expanded dramatically from prohibition and control to a growing emphasis on the promotion of environmentally-desirable behaviour, on positive and market-based incentives and on self-regulation and voluntary approaches (Gunningham, 1998). Fig. 1-2 suggests a classification of six types of policy measures (i.e., regulatory, framework, market, voluntary, procedural and information). The features of each of the measures are summarised in Box 1-1 (Helm, 2000). These are not entirely mutually-exclusive categories and can be implemented in combinations, (i.e., in a policy mix), drawing upon strengths and constraints of each measure.

This diversification of policy measures is apparent in many countries in Asia and the evidence indicates that the choice of appropriate mixes is an important key in policy effectiveness. Examples are provided in this publication of both relatively successful and unsuccessful policy mixes and these underscore the importance of caution and selectivity and of learning lessons from experiences. According to N. Gunningham, certain policy mixes appear to work well in some settings but in other settings are counter-productive.



Developed from the MOEJ (2000)

A further important factor to consider when examining alternative policy mixes is capacity constraint. This is especially the case for poorer developing countries. As a general axiom, the more complex the policy mix, the more numerous are the environmental issues that need to be managed or coordinated at the same time. Experience across Asia suggests that some countries lack the required capacity for fully effective implementation of even command and control-type policies. This suggests that excessive diversification of different policy measures may make the whole operation confusing and ineffective.

Box 1-1: Features of different policy measures

Regulatory measures

Although this approach receives a lot of criticism, it is important to note the strengths of the regulatory measures. Usually regulatory measures are quick in producing impacts, suitable in controlling a small number of large enterprises, and easy to implement in certain cases (e.g., prohibition of production and use of toxic chemicals) (Durant et al., 2004). At the same time, the shortcomings of this approach should be clearly recognised. They include: constant monitoring and high implementation costs; vulnerability to corruption; and, no incentives for continuous improvements in environmental performance.

Framework approach

This typically takes the form of an introduction of a framework legislation, or preparation of various master plans and action plans. Usually a broad policy framework is established in which basic principles, long-term goals, and the roles of many stakeholders are presented. This approach has become the norm in many countries partly because both the central and local governments were requested to develop their Agenda 21s after the Rio Summit, but is considered essential to have mutual agreement amongst major stakeholders to achieve long-term goals in an effective manner. Under this framework approach, several programmes are developed and implemented for facilitating the achievement of common goals.

Market-based measures

Market-based measures include fiscal incentives and disincentives (e.g., taxes, charges, and subsidies) and market creation for environmentally-sound goods and services (Sterner, 1999). These measures have been used alone or in combination with other measures in many Asian countries. The government role is indirect in that it attempts to influence those concerned with economic incentives and disincentives. Compared to typical regulatory measures, cost effectiveness is expected to be high, and implementation costs could be low (Andersen et al., 2000). However, the visible impacts may not come immediately. It is important to note that the successful implementation of market-based measures depends upon market conditions, consumers' spending patterns and elasticity of the price for particular products and services.

Voluntary agreements

Voluntary agreements or initiatives have been concluded or announced in relation to the reduction of greenhouse gas emissions in several OECD countries. They take the form of an agreement concluded between the government and industry to achieve a common goal of environmental management when there is not yet a consensus on the introduction of regulatory measures. This approach gives flexibility to companies as to specific actions to be taken, whereas a question remains as to the belief that companies will not go far enough to take serious action involving significant trade-offs (Mol et al., 2000).

Procedural measures

Procedural measures include strategic environmental assessment, environmental impact assessment, environmental management systems, and a design for the environment. By ensuring that the government and business follow standard procedures, improvements in environmental performance may result as consultations with top management and local communities are incorporated in the process. If the same procedure is taken on a regular basis, continued improvements are expected.

Information measures

Information measures include: environmental labelling, life-cycle assessment, environmental performance assessments, environmental reporting and environmental accounting. These measures are considered important for sound decision-making by relevant stakeholders based upon the accurate information provided. Eco-labelling is intended to provide consumers with information on, for example, what is contained in the products. Environmental reporting can provide essential information needed by financial institutions for their environmental performance evaluations.

The various policy channels and policy mixes indicated above provide a broad conceptual framework to examine policy options (Jeanrenaud, 1997). It underscores the importance of avoiding “one-fit-for-all” approaches and of tailoring policy mixes to local conditions and the nature of the issues in question. In subsequent chapters when we assess the policy tools aimed at environmental management and sustainable use of resources in connection with specific sectors, it is important to bear in mind a variety of policy options outlined and explore a suitable combination of policy mix components to achieve specific objectives in diverse circumstances.

Bottom-up and community-driven approaches to sustainable development: Potentials and problems with participation

As policy measures become more ambitious and more diversified as outlined above, the number of stakeholders involved and affected will generally increase as well and collaboration and coordination among different stakeholders will become more important. In addition, many environmental issues, such as haze pollution, climate change, forest management and the equitable use of shared water resources, pose a unique set of challenges to environmental governance (Dragun et al., 1997). These environmental problems involve a spatial variation in terms of their causes and effects over multiple levels – local, national, regional, and global. Some of these problems are local in terms of the source of the harm and the impact; others are local in source but trans-boundary in impact; yet others are trans-boundary both in source and impact. The factor of spatial variation highlights the need for decision-making processes that go beyond national borders and illustrate the necessity for creating mechanisms at the local, national and international levels.

It is because of these factors that Asian countries and their international development agency partners are today placing greater emphasis on “multi-stakeholder” and “participatory” approaches to development in general and to environmental issues in particular. In many cases, the words multi-stakeholder and participatory have become almost essential in the titles of environment and development projects (e.g., “participatory forest development,” “participatory waste management,” and “national participatory water resources framework.”)

This growing emphasis is also a reflection of the changes brought about by the forces of globalisation, on the one hand, and of decentralisation, on the other. These have reconfigured environmental actors and

processes, expanding them simultaneously at both the local and international levels and driving a transition towards a multi-level structure of governance. In this evolving structure, the role of non-state actors has become more important at the local, national and international levels, while that of the central state has been altered. Such processes are already taking place, as discussed in the subsequent chapters, in several environmental areas, from forest conservation to water resource management where policy is emerging in the form of a complex mix of initiatives by local governments, communities, business and international institutions. Consequently, the role of central governmental agencies is progressively shifting from being a centre of authority to one of partnership. These shifts are challenging existing institutional arrangements. More than this, however, they also require entirely new arrangements for coordination and collaboration to ensure adequate and effective linkages among policies at the local, national and trans-national levels.

Multi-stakeholder and participatory arrangements and approaches, however, are not without problems or serious drawbacks. Four problem areas can be identified: Firstly, there are problems of definition and concept. As emphasis on participation has expanded, three fundamental questions have arisen. (i) What does participation actually mean and entail? (ii) Can methods to engage people through small groups be “scaled up” to the national and regional level? (iii) Especially important for governments, who has legitimacy and should be included in participatory processes? These questions have produced efforts to provide participation with a clearer conceptual framework, better definitions and a solid grounding in the social sciences, but have also been severely criticised as flawed and imprecise. For example, many efforts have been made to define exactly who are “stakeholders” and who are “*primary* stakeholders.” But these efforts usually begin by defining a stakeholder as just about anybody with an interest in a given programme or project. Primary stakeholders are then defined as those who will be positively or negatively affected directly by that programme or project. The problem with this is that its boundaries are not clear and its application is highly judgmental. The result of this imprecision has been a tendency to claim “the more participation, the better” and “the larger the group, the better.”

There are serious definitional and conceptual difficulties with the notions of multi-stakeholdership and participation and these need to be addressed. Concern should be raised that participation operating without a framework of norms and standards could lead to not only a waste of time and effort, but also could be employed as a tool for manipulating a platform of decision-making and policy implementation.

Secondly, a multi-level and multi-stakeholder set-up may create less accountable responses. A national government may shift the responsibility of certain environmental problems to local governments or may claim that all global environmental issues should be dealt with by the international community. This tendency is more conspicuous with environmental issues because they are often regarded as problems rather than opportunities. A clear division of responsibility needs to be agreed upon among the stakeholders and sound monitoring mechanisms have to be established.

Thirdly, participatory and multi-stakeholder approaches often result in the creation of entirely unrealistic expectations, including demands that governments or companies provide services that are completely beyond the available financial and organisational resources.

Finally, the prospects for the success of multi-stakeholder and decentralised efforts have been shown to depend on a wide range of capacities at different levels of society. It has become clear that these required capacities either do not exist or are in very short supply in many instances, especially in poorer countries. For example, serious urban environmental problems highlight the importance of building regulatory, institutional, financial, technical, and social capacity for urban environmental management. Most local governments lack such capability. Thus, not only does simple devolution of environmental mandates to local gov-

ernments not improve policy implementation, in many instances its consequences are negative and even pernicious.

This indicates that, while new environmental stakeholders have been emerging and alternative processes to engage them have been multiplying, the creation of the institutions and the building of the capacities on which these depend have been lagging behind. During the last decade, national environmental institutions were established in virtually all countries. One of the most substantial problems that prevented the good performance of such institutes was a lack of capacity. Capacity-building of major stakeholders is likewise a key element in that respect.

Structure of this publication

Against this background of the conceptual framework, problems and challenges of “sustainable development,” this publication offers a synthesis of work in progress at IGES in the form of possible policy responses, institutional frameworks and assessments of underlying challenges on different sectors and themes. The presentation does not always follow the aforementioned analytical methodologies although these are born in mind in synthesising and examining driving forces, analysing policies and their impacts and formulating recommendations for better environmental management and sustainable development in Asia.

Chapter 2 begins with an outline of the principal drivers, challenges and dilemmas that confront Asia in meeting its environmental needs while at the same time attending to the imperatives of economic and social development. It then presents a synopsis of overarching policies and institutional issues delineated by regional, sub-regional and national policy development, implementation and challenges.

Chapter 3 examines policy issues on forestry, including the major causes of forest destruction in Asia and existing and emerging alternatives to promote sustainable forest management. It explores the impacts of community organisation and mobilisation, certificate systems, community forestry, protected areas, trade restrictive measures for containing illegal logging and for buttressing sustainable forest management.

Chapter 4 addresses freshwater issues. After outlining the major trends of water use and the key policy agenda, various options for promoting sustainable use and management of freshwater resources are suggested. Such options include: inclusive and carefully structured multi-stakeholder policy dialogues, integrated water management, policy and institutional reforms, finance and market measures, public-private partnership, and water harvesting. The impacts of various options are analysed and linked in order to multiply the overall policy impacts for promoting sustainable water use and management.

Chapter 5 analyses the recent development and impacts of climate policies in Asia, particularly in the context of the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. It examines the status and significance of climate policies in Asia and their multifaceted linkages with other policies such as energy, transport, industry, forestry and agriculture. It analyses the impacts and future potential of renewable energy sources as substitutes for fossil fuel. The Clean Development Mechanisms of the Kyoto Protocol and adaptation measures are also addressed in this chapter. Finally, it provides perspectives for building an agreement on climate change control beyond 2012 under the so called “Post-Kyoto Climate Regime.”

Chapter 6 examines urban environment management. It emphasises that the driving forces aggravating Asia’s urban environment are air pollution, water depletion, shortage and sanitation and solid waste. It

gives an overview of the various initiatives and undertakings at the national, regional and international levels to promote effective urban environmental management.

Chapter 7 examines emerging issues and policy possibilities for the role of business for sustainable development. It analyses the implementation of various schemes such as ISO 14000 and corporate information disclosure. It also addresses environmental management by small and medium enterprises (SMEs), corporate social responsibilities (CSRs), and corporate behaviour, including production and investment.

Chapter 8 reviews the policy issues of education, public awareness and training for environmental management and sustainable development. It presents a theoretical framework of capacity-building and its linkages with education, public awareness and training. Then, it examines formal, non-formal and informal education, looking at various initiatives and undertakings at the national and international levels, such as the UN Decade of Education for Sustainable Development from 2005 – 2014.

Finally, Chapter 9 presents overall findings and conclusions.

It is hoped that this document will contribute to debates and discussions within Asia and beyond on strategic and policy needs and challenges that must be addressed successfully if a sustainable and prosperous Asia is to emerge in the 21st century. For policy-makers, especially in Asia, it is also hoped that this first White Paper effort by IGES may prove of assistance and value in furnishing insightful and simulative perspectives and as a provocative framework for policy dialogue.