

*Best Practice on Environmental Policy in Asia and the Pacific: Chapter 1***The Development of Environmental Policy**Peter N. King^a and Hideyuki Mori^b

The environmental policies in place today across the globe have been arrived at through a process of evolution, adoption, and adaptation. This paper outlines how environmental policies have evolved over time, including how their scope has broadened from looking at primarily industrial pollution to addressing a host of other environmental problems, especially in natural resource management. It also examines how the measures that have been adopted by governments to tackle environmental problems have changed, from mainly command-and-control measures to a mix of policy instruments that include self-regulation and market interventions. The paper is the first of a series of eight papers presented in this special issue of the *International Review for Environmental Strategies (IRES)* which together comprise the report of a recent research project carried out by the Institute for Global Environmental Strategies (IGES) and several partner institutes to extract lessons for policymakers from the Good Practices database of IGES's Research on Innovative and Strategic Policy Options (RISPO). It provides a conceptual background for the report. The last section of the paper provides a brief introduction to the research and describes the structure of the rest of the report.

Keywords: environmental policy, RISPO, policy instruments

1. Introduction: Environmental policy

What do we mean by *environmental policy*? Many different definitions have been offered in the last few years. Some of these focus only on actions, and see government as the only actor capable of making policy, for example “any actions deliberately taken—or not taken—by government that are aimed at managing human activities with a view to preventing harmful effects on nature and natural resources, and ensuring that man-made changes to the environment do not have harmful effects on humans” (McCormick 2001). A better and more comprehensive definition is offered by Roberts (2004): “a set of principles and intentions used to guide decision making about human management of environmental capital and environmental services.” Noteworthy in this latter definition is that it defines policy as principles and intentions rather than as actions. This definition of *environmental policy* is followed in this paper and in the region-wide study Research on Innovative and Strategic Policy Options (RISPO), implemented by the Institute for Global Environmental Strategies (IGES) in collaboration with several other institutes between 2002 and 2005 (see chapter 2 of this series, King and Mori 2007a). Based on this definition, *policy instruments* are defined as the means by which these principles and intentions are turned into action. These instruments are not necessarily used by public agencies, although they often are.

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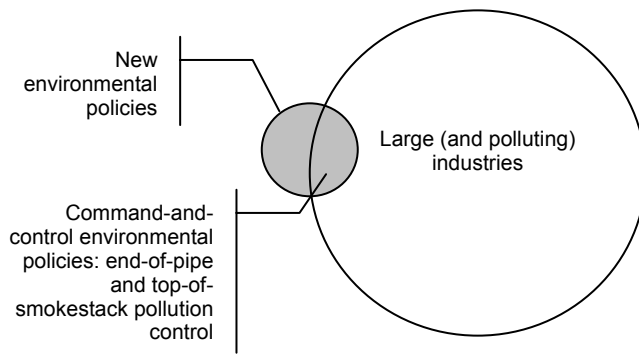


Figure 1. Environmental policy in the 1970s

In developing countries of Asia and the Pacific, policymakers concerned with sustainable development or environmental management are regularly faced with a difficult dilemma: they know that good environmental policymaking requires substantial research and careful balancing of the advantages and disadvantages of various options, and that policies should be tailored to the local culture and implementation capacities. However, they generally have neither the time nor the resources to conduct such thorough, rational analysis. Commonly, policies are made in the wake of some environmental crisis or external pressure: there is a hue and cry; the media picks up the story; the public demands a solution; and the responsible minister ensures that one is provided as quickly as possible. Thus, policy is often made on the fly.

2. The genesis of environmental policymaking

In the late 1960s and early 1970s, a number of environmental crises—the discovery of dangerous concentrations of pesticides in the food chain, the damage to children’s brains caused by lead in gasoline, mercury poisoning from industry and gold mining, rising asthma cases due to heavy air pollution, catastrophic oil spills at sea, and others—prompted governments around the world to establish new environmental agencies and to introduce a range of environmental policies that sought to remedy such problems through imposing mandatory standards, requirements, and limits. These would typically target the use of an industrial chemical or emissions from a factory, and were usually aimed at factories and other polluters (see figure 1). The pollution standards adopted under these so-called command-and-control policies were based on laboratory research into the effects, and dose-response relationships, of various dangerous chemicals—some of them in common use—and their breakdown products. Most of these studies were carried out in the United States and Europe, not in developing countries.

In the 1970s, environmental policy was mostly restricted to promoting end-of-pipe or end-of-smokestack solutions, bolting environmental controls onto existing industrial plant. While there was always debate over the economic impacts of such policies, the evidence showed that retrofitting environmental controls rarely bankrupted any industry, especially where virtually all factories in a sector had to meet the same costs. Environmental policy could be seen as a tiny pimple on a very large (and highly polluting) industrial pumpkin.

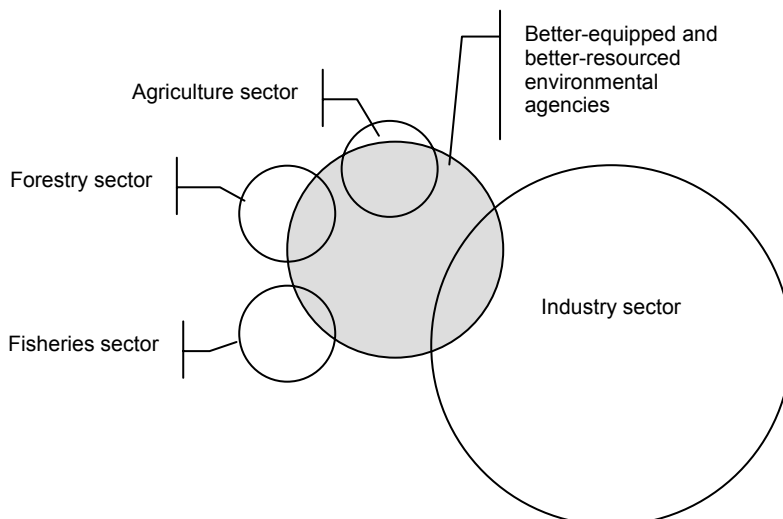


Figure 2. Environmental policy expands in the 1980s

During this time, governments in the developing world generally lagged behind Europe, Japan, and the United States in imposing environmental policies and standards by 5–10 years. In the interim, the research continued, using increasingly sophisticated and sensitive equipment. Generally this led to progressive tightening of standards, and outright banning of many substances for which no safe dose could be found. Developing countries eventually adopted the same types of policies, often due to their becoming signatories of multilateral environmental agreements, pressure from international donors, or media attention generated by non-governmental organizations (NGOs). Local NGOs were suddenly appearing and becoming active at this time, often influenced by international environmental NGOs, or imitating them. When the developing countries did this, they tended to adopt the latest standards in place in Europe or the United States. Thus regulation in developing countries started with the already stringent standards that were applied in developed countries, but without the developed countries' experience in enforcing the earlier, more achievable standards.

3. New aims, new approaches

In the 1980s, as environmental agencies became better equipped and resourced, and the extent of environmental problems became more widely recognized, most governments realized that environmental policies were needed for more than control of industrial pollution. In particular, management of natural resources in the agriculture, forestry, and fishery sectors was recognized as an important environmental concern, especially in developing countries. In many cases, governments tried to make existing sectoral agencies like agriculture, environment, and fisheries ministries adopt environmental management principles and policies, often creating conflicts of interest, as the same agencies were now responsible for both promoting and policing production (figure 2).

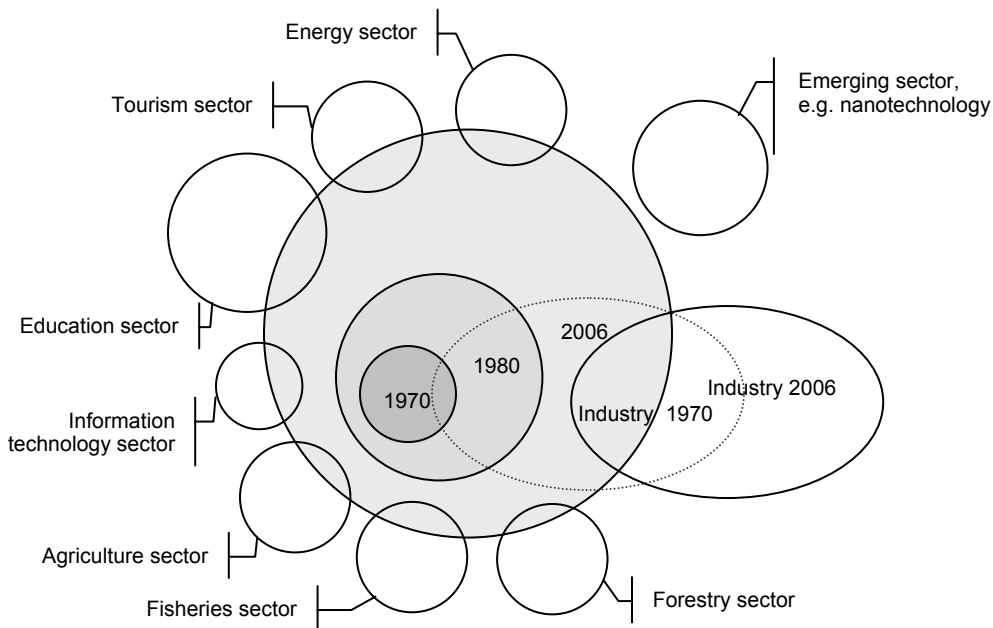


Figure 3. Environmental policy intersects with most sectors by 2006

In the course of the 1990s, environmental policy underwent further shifts. New sectors became more important, industry increasingly moved towards self-regulation, and apart from very new sectors such as nanotechnology there was an environmental policy intersection with virtually all aspects of the economy (figure 3). With concepts of sustainable development resting on three pillars—economic, social, and environmental—it was realized that environmental policy needed to be integrated with the other two areas (see below).

Some time between 1980 and 1990, there was a paradigm shift in the way that governments addressed environmental issues. Governments increasingly realized that command-and-control approaches did not work for all kinds of environmental problems. Environmental damage was seen as fundamentally a market failure due to and the absence of pricing for environmental quality. A “neocapitalist” approach of relying on the power of the market and economic incentives to change environmentally harmful human behavior thus became the new fashion in environmental policy.

Developed countries, typified by the Netherlands, relied on voluntary agreements by industrial sectors to meet specific environmental objectives, while the means of achieving those objectives was left up to the companies concerned. Self-regulation, corporate social responsibility, and self-funded environmental auditing replaced the policing role of early environmental regulators, thus reducing the need for massive increases in staff and resources to meet the ever-expanding mandates of the environmental agencies. Early gains from such policy approaches (essentially from low-hanging policy fruit) convinced many that if only all the market flaws could be removed then the environment would be protected automatically. This new and apparently cost-effective approach was enthusiastically supported by both

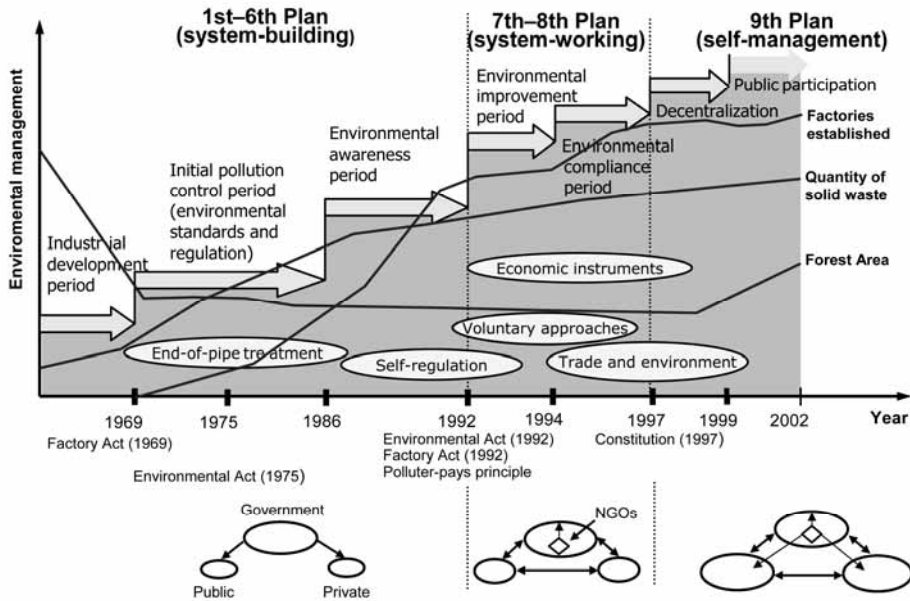


Figure 4. Development of environmental policy trends in Thailand, 1961–2006

Source: Adapted from Chotichanathawewong and Chairattananont 2003.

industries and ministries of finance. Environmental economics became an academic discipline and a route for career advancement. It appeared as if environmental issues were finally being mainstreamed into economic and social planning, aided and abetted by increased public-private partnerships, civil society participation, and decentralization (figure 4).

This new wave of policies is predicated on an underlying assumption that humans will generally respond to the same set of incentives and disincentives in identical ways. However, while physiological responses to a dose of a given pollutant may be more or less uniform in humans, it is highly questionable whether people of all cultures and socioeconomic conditions will have the same behavioral responses. Hence, transferring new-generation environmental policies directly from developed countries is even more problematic than the direct transfer of command-and-control policies was in the 1980s.

At the same time, developing countries no longer have the luxury of postponing environmental policy decisions for a decade while they observe experiences in Europe, Japan, and the United States. The global information and communication revolution, spearheaded by the Internet, means that environmental policies applied in downtown New York today are being studied by NGOs in New Delhi tomorrow. Well-intentioned international donors, in the cause of promoting good governance, promise developing countries large sums of investment funds in exchange for adopting the latest and “best” policy practices. Online databases of these good practices have sprung up everywhere, so the excuse that a policy appropriate to the circumstances could not be found is no longer acceptable. In chapter 2 (King and Mori 2007a) we examine further the processes of environmental policy diffusion and how it is influenced by the information age and the pressures applied by external actors.

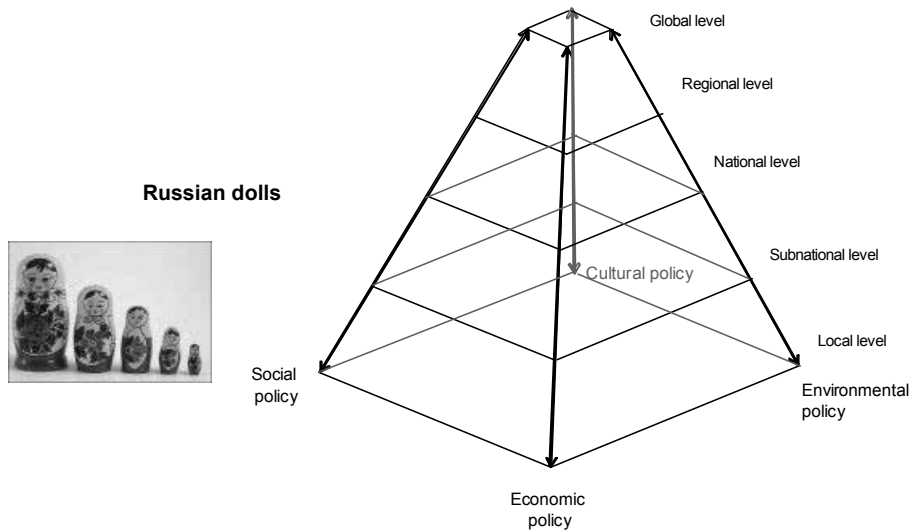


Figure 5. An ideal policy framework: integration of sustainable development dimensions at all levels

Source: Adapted from King, Annandale, and Bailey 2000.

4. Environmental policy and sustainable development

The sustainable development summitry of the 1980s and 1990s propagated the view that integration of environmental management, social dimensions, and economic development at all levels was the ultimate goal of sustainable development. Chapter 38 of Agenda 21¹ defines the overall objective of developing “international institutional arrangements” as “the integration of environment and development issues at national, subregional, regional and international levels, including in the United Nations system institutional arrangements.” Chapter 8, on “Integrating environment and development in decision-making,” states that its overall objective is “to improve or restructure the decision-making process so that consideration of socio-economic and environmental issues is fully integrated ...” Recommended activities include “the integration of economic, social and environmental considerations in decision-making at all levels and in all ministries.”

If this set of objectives were actually achieved, then the pattern of environmental policy would evolve into that shown in figure 5, resembling a set of closely fitting Russian dolls.² Sustainable development plans would fully integrate environmental, social, economic, and cultural dimensions. There would be one global plan (such as Agenda 21), a handful of regional plans, national plans for all of the countries in the world, several thousand subnational plans, tens of thousands of local plans, and hundreds of thousands of program and project plans. Each layer would be linked at least to the plans above and

1. The agenda for action on sustainable development adopted at the 1992 United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 July 1992. Full text available at <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm>.

2. Sets of similar-looking painted wooden dolls of decreasing sizes, each of which fits snugly inside the next.

below it, and there would be no conflict between the plans. Spatially, national plans would dovetail together into regional plans and regional plans would combine to form the global plan. The plans at the base level would be very detailed, and those at the top of the pyramid would be very general.

Unfortunately, no ideal society has emerged so far that integrates development plans in such a clustered hierarchy, and probably the effort involved is simply too great for this ever to happen. Environmental policy generally remains a separate field of endeavor and its relationship to economic, cultural, and social activities remains one of mitigating, modifying, or softening the impacts that they create on the environmental domain. The notion of sustainable development, integrating the environmental, social, and economic pillars, therefore remains theoretically and politically attractive but operationally constrained.

The failure of this idealized model of environmental policy and the reality of continuing environmental degradation at all levels has triggered a hasty re-evaluation of the goal of mainstreaming environment in development policy and the domination of environmental policy by economists who would “put a price on everything but know the value of nothing”. By the turn of the twenty-first century, it was realized that the new market-based policy instruments needed to be backed up by strong regulatory controls, and that a sophisticated policy mix was necessary to solve environmental problems (Gunningham and Grabosky 1998). Market-based policies and voluntary incentives were only effective if there was a willingness and competitive advantage to self-regulate. Such incentives were often provided, in part, by the threat of introducing tougher command-and-control regulations, which would bind industry in red tape, if industry did not reach required environmental standards through self-regulation. The policy backlash also appears to have been driven by concern, especially among the activist NGO community, that the new environmental policy instruments had not made substantial improvements in environmental quality and many aspects of the global environment were now approaching possibly irreversible thresholds, driven in large part by economically rationalized globalization.

5. Introduction to the RISPO good practices research

To gain a better understanding of how developing countries in Asia and the Pacific have approached environmental policy choices, IGES led the RISPO project (see above). Collaborating with 14 other research institutions in Bangladesh, China, Denmark, India, Indonesia, Japan, Thailand, and Vietnam, RISPO aimed to develop and maintain two online knowledge-based tools—the Good Practices Inventory and Strategic Policy Options—in the expectation that policymakers in developing countries of Asia and the Pacific would find the experience of other countries useful in drawing up their own policies as the need arose. To date, some 139 good practices and about 92 strategic policy options have been documented and are available at the IGES website.³ See chapter 3 of this series (King and Mori 2007b) for more information about RISPO and the data gathering for the Good Practices Inventory.

3. The RISPO Good Practices Inventory can be accessed at <http://www.iges.or.jp/APEIS/RISPO/inventory/db/index.html>, and the Strategic Policy Options tool at http://www.iges.or.jp/cgi-bin/rispo/index_spo.cgi.

As the objective of RISPO was to uncover innovative policies and policy instruments as well as cases of other well-known policies being applied in new settings, the case studies and policy options were collected within eight subthemes that are at the cutting edge of policy development trends in Asia and the Pacific and were thought to be likely to demonstrate innovative approaches and policy instruments. The emerging policy trends and the selected subthemes under each trend are shown in table 1, along with the number of good practices collected. Depending on the subtheme, countries in the region that were deemed to have the most appropriate good practices were included in the study. The number of good practices collected under each subtheme within the three-year lifetime of the project varied, being determined by the existence of good cases to study and by the resources available in each country to document them.

Table 1. Emerging policy trends and selected subthemes and good practices

| Policy trends | Selected subthemes | Good practices |
|---|---|--|
| Accelerating the societal shift to a post-fossil fuel era. | Innovative finance for renewable energy development | 17 cases from China and India |
| | Promotion of biomass energy use | 11 cases from India and Thailand |
| Finding material and energy-efficiency gains outside major industries | Inter-boundary recycling market for enhancing resource-recycling society | 23 cases from Brazil, Germany, Japan, Malaysia, the Philippines, South Korea, Taiwan, Thailand, the United Kingdom, and Viet Nam |
| | Improving environmental performance of small and medium enterprises | 20 cases from India, the Philippines, and Thailand |
| Orienting urban life to ecological principles | Development of environmentally sustainable transport systems in urban areas | 22 cases from Brazil, China, Colombia, Ecuador, Japan, Nepal, Singapore, South Korea, and Thailand |
| Retreat of "big government" and co-option of civil society into natural resource management | Promoting environmental education by NGOs | 17 cases from Indonesia and Japan |
| | Facilitating protected area management using community-based tourism | 13 cases from India, Indonesia, Japan, and Thailand |
| | Promoting sustainable resource management based on local/indigenous knowledge | 16 cases from Bangladesh, mainland China, Hong Kong, Japan, and Thailand |

Such a wide variety of cases offered a potentially rich source of information about which environmental policies have been successful and why they have been successful. As well as presenting the good practices and the strategic policy options in database form, it was decided to carry out further research to find out what patterns could be found in the inventory and what lessons these patterns might hold for policymakers in developing countries, especially in Asia and the Pacific. Research methodologies from qualitative research were selected and applied to the good practices in the database, and these are presented in the series of eight linked papers in this special issue of *International Review for Environmental Strategies*. Chapter 2 (King and Mori 2007a) includes further conceptual discussion

about the ways in which countries adopt environmental policies. Chapter 3 (King and Mori 2007b) presents the methodologies used to extract lessons from the RISPO good practices database. Chapters 4–7 present the findings and conclusions of this research exercise in each of four major policy trend areas and eight subthemes of the RISPO Good Practice database (table 1).

The final paper in the series, chapter 8, includes the findings derived by applying textual pattern matching analysis to all of the good practices examined in the research. It also offers the main conclusions and recommendations, identifies additional areas that should be studied in greater detail, and provides general advice to the region's policymakers. Policymakers who are already familiar with the theory of policy diffusion and policy integration may wish to skip chapter 2, although the evidence suggests that these concepts are not well understood in Asia and the Pacific and that the region's policymakers may need a quick refresher course.

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