

Chapter 5. Building Institutional Capacity

Without sufficient institutional capacity and arrangements, even the most progressive legislative reforms will fail to have the desired effect, and any efforts at environmental planning can easily be compromised by political interests and mismanagement. As a result, scarce resources, such as water, materials, and energy, will continue to be used inefficiently.

As described in the previous chapter, many governments throughout Asia have issued comprehensive sets of environmental laws and regulations toward improving resource efficiency. However, it is clear that passing environmental laws and regulations is not enough to achieve the environmental quality that Asians will increasingly demand. Environmental policy regimes are only as strong as their weakest link, and that weakest link is often the institutional capacity to enforce those laws and regulations.

Despite considerable progress in many countries to strengthen their environmental institutions at the national and local levels, there remains a major compliance gap in Asia. Most countries in the region face common institutional challenges, including: harnessing political will, building adequate institutional capacity, clarifying roles among government agencies, optimizing budgetary allocations, enhancing access to justice, fostering public involvement, and disclosing information.

In the future, governments must grapple with the following questions in redesigning their institutions:

- What kinds of arrangements facilitate sustainable resource use and environmental conservation?
- How can institutions be designed that integrate external effects and account for the complex

interdependencies among human and ecological systems?

- What can be learned from existing institutions to safeguard access to and sustainable use of resources?
- Are there opportunities for new coalitions among NGOs, industry, and government?

A number of common institutional issues in the region are discussed below. The Asian Environmental Compliance and Enforcement Network (AECEN) is the main source for information in this chapter. AECEN is a regional network of national and subnational agencies from Asian countries committed to improving environmental compliance and enforcement in Asia. It is funded in part by ADB.

Coordinating Developmental and Environmental Policies

A common institutional problem arising in the region is the failure to coordinate developmental and environmental policies between the central and local governments, as well as between different sectoral interests at all levels. Few governments have adequate structures for collaboration among agencies. A principal challenge in improving resource efficiency in an economy requires a shift away from bureaucratic fragmentation to interagency collaboration and consultation.

This will require a break from the recent institutional trends. Currently, many of the legal instruments and strategies adopted by governments are entirely sectoral in approach and are implemented by ministries interested only in the specific range of activities that fall within their mandate. Thus, national ministries and regional and local agencies tend to work in relative isolation, despite the fact that

they often introduce policies and invest in projects that have major impacts on the responsibilities and work of other agencies. For instance, a ministry of energy or transportation may launch a major project for production of biofuel from garbage without consulting the agency responsible for solid waste management. At other times, more than one government agency may claim competence over a particular matter, resulting in overlapping jurisdiction and institutional rivalries.¹⁸¹

In Thailand, for instance, the patchwork of laws and regulations governing environmental management has resulted in a somewhat fragmented environmental regulatory system with no single legal authority ultimately responsible for managing and protecting the environment (Box 5.1). As an example, the Pollution Control Department (PCD) within the Ministry of Natural Resources and Environment has the authority to inspect and issue administrative and civil actions against regulated point sources within its jurisdiction. However, the Factory Act of 1992 grants the Department of Industrial Works (DIW) primary enforcement authority over most factories, including imposing effluent and emission standards as part of some operating permits and issuing penalties. The result is overlapping authority between DIW and PCD, creating a situation where no single ministry is responsible for environmental compliance and enforcement of all pollution sources in Thailand.¹⁸²

Another common problem is that ministries in charge of the environment frequently have less influence than do powerful sectoral ministries, which are more predisposed toward natural resource exploitation. This is true even in countries that have recently merged their environmental and natural resources functions, such as Malaysia, Thailand, and Viet Nam.¹⁸³

Box 5.1: Thailand's Legal Framework and Institutions Governing Environmental Management

In response to environmental challenges over the last 2 decades, Thailand has developed increasingly progressive policy mandates that have aimed to strengthen legal frameworks, institutional arrangements, and environmental management capabilities. Thailand now has some 67 laws and regulations governing environmental and pollution control management and related issues on city planning, waste disposal, forest conservation, land allocation, groundwater usage, and irrigation. Most of these laws were enacted or amended in 1992, a watershed year in Thailand. Six ministries now share authority for the implementation of environmentally-related laws, depending on jurisdiction: Ministry of Natural Resources and Environment, Ministry of Industry, Ministry of Interior, Ministry of Public Health, Ministry of Transportation, and Ministry of Agriculture and Cooperatives.

Another major driver for improved policies and practices was the 1997 Constitution, which guarantees citizens a number of fundamental rights related to managing and conserving natural resources and the environment, participating in environmental decision making, and receiving information about projects and activities that may affect the environment. Moreover, the Constitution provides that local government has the duty to promote and maintain the quality of the environment.

As part of the Public Sector Reform Program, the government established the Ministry of Natural Resources and Environment (MoNRE), which consolidated and rationalized a wide range of environmental functions from across many ministries, and strengthened the role of regional offices to provide training and information to provincial and local governments. This new ministry now faces the challenge of creating a more unified approach to environmental management and protection. As part of its effort to implement its decentralization policy, MoNRE appointed pollution control officers from the regional and provincial offices to carry out environmental inspection and enforcement functions. Local governments eventually will play an important role in environmental compliance monitoring and enforcement.

Source: Asian Environmental Compliance and Enforcement Network. 2004. *Environmental Compliance and Enforcement in Thailand: Rapid Assessment*. Available: <http://www.aecen.org/document.htm>

¹⁸¹ Khee-Jin Tan, Alan. 2004. Environmental Laws and Institutions in Southeast Asia: A Review of Recent Developments. *Singapore Yearbook of International Law*. Vol. VIII: 177–192. Available: <http://law.nus.edu.sg/apcel/docs/Article-SYBIL3-SoutheastAsiaEnvironment3.pdf>

¹⁸² Asian Environmental Compliance and Enforcement Network (AECEN). 2004. *Environmental Compliance and Enforcement in Thailand: Rapid Assessment*. Available: <http://www.aecen.org/document.htm>

¹⁸³ Khee-Jin Tan, Alan. 2004. Environmental Laws and Institutions in Southeast Asia: A Review of Recent Developments. *Singapore Yearbook of International Law*. Vol. VIII. 177-192. Available: <http://law.nus.edu.sg/apcel/docs/Article-SYBIL3-SoutheastAsiaEnvironment3.pdf>

Box 5.2: ADB's Support of Institutional Development in the Environment Sector

Through technical assistance, the Asian Development Bank (ADB) is helping its developing member countries integrate environmental objectives into policy development and decision making, and establish coherent policies that confront conflicts in environmental management. ADB is also helping governments to strengthen the capacity of national environmental and sector development agencies and to introduce regulations and guidelines to ensure integrated environmental and development planning and management. Part of this assistance includes helping governments move beyond a “command-and-control” approach and toward such market-based instruments as pollution taxes, charges, and tradable permits.

Many recent technical assistance projects have emphasized capacity development, and the scope and beneficiaries of capacity building have become more diverse. For government officials, assistance is focusing on pollution taxation, environmental law, incorporation of natural disasters in fiscal processes, and strategic environmental assessment for government officials. For communities, it includes coastal natural resource management and enhanced urban waste management. For households, it includes sustainable livelihood activities, including environmental conservation, waste collection and recycling, and skills development.

Specific activities include:

- efforts to strengthen systems for pollution taxation and resource mobilization for environment and natural resources in Thailand;
- evaluation of environmental policy and investment for water pollution control in the Huai River Basin in the People's Republic of China (PRC);
- environmental monitoring and information management system for sustainable land use in Kazakhstan;
- strategic environmental assessment in the hydropower sector in Viet Nam; and
- environmental assessment procedures in the national environmental agency in Bhutan, in the Uttaranchal Power Sector in India, and in the Environmental and Social Division of the Road Development Authority in Sri Lanka.

Other ADB advisory support is promoting natural resources management in Indonesia, sound environmental management in Maldives, and energy conservation and resource management in the PRC, among others.

In 2005, ADB approved a regional technical assistance to support the establishment of the Asian Environmental Compliance and Enforcement Network (AECEN), in cooperation with the United States Agency for International Development (USAID). AECEN aims to promote improved compliance with environmental laws in Asia through a regional exchange of innovative policies and practices. It serves as a regional platform to: promote the development and implementation of improved environmental laws, regulations, and institutions; strengthen practitioner's capacity through specialized training and tools; and facilitate regional sharing of best practices and information.

Source: ADB.

To address these problems, any efforts to improve institutional development and capacity development must be broad-based. They must include authorities in charge of environmental protection and sustainable development, authorities in charge of general coordination and integration among different sectors—agriculture, construction, education, environment, finance, health, industry, and transportation—and also concerned sector authorities, such as those in charge of water resource management or energy planning. The same range of agencies needs to be involved at local and regional levels.

Laws that promote resource efficiency should provide relevant agencies (environmental

or otherwise) with clearly-defined mandates, responsibilities, and resources to protect public health and the environment and to promote efficiency improvements through regulatory or financial incentives, technical assistance, or information-based measures (Chapter 4).

An agency's regulatory authority should encompass the full range of powers and responsibilities, including standard setting, permitting, monitoring and inspection, investigation, and enforcement actions. Since these powers and functions are interconnected, incomplete mandates can seriously limit the agency's capacity to ensure compliance. The roles and responsibilities of the

principal agency should not overlap or conflict with those of other government agencies.

In addition, the principal agency should have the institutional autonomy to develop and implement its resource efficiency program free from political intervention or external pressure related to economic development or other government or private sector priorities. The credibility of the agency will depend on the public's perception of its independence.

Where separate government agencies have complementary responsibilities, interagency cooperation is crucial for effective enforcement of environmental requirements. To ensure effective cooperation and coordination, a country's principal environmental agency should work with all related agencies: agriculture, economic development, energy, health and safety, land-use planning, natural resources management, and transportation, as well as criminal investigation, customs.

In coordinating with other agencies, environmental agencies should address gaps and overlaps in authority, and ambiguity in operational roles. Possible interagency cooperation mechanisms can include interagency agreements that establish clear coordination procedures, joint research programs; and multi-agency committees or task forces. Sharing information among national and local agencies can also be an effective strategy for understanding their interlinked responsibilities and facilitating coordinated decision making. Some governments, in some cases with help from donor groups like ADB (Box 5.2), have taken steps to strengthen coordination between departments with innovated mechanisms.

For instance, in the PRC, Chongqing municipality engaged in a series of campaign-style joint enforcement and comprehensive environmental management activities to boost environment quality. To define clear responsibilities and enhance supervision over key problems and projects, the city in 2005 initiated four campaigns: Blue Sky, Clear Water, Green Land, and Serenity. They also set up a task force headed by the vice mayor involving eight government agencies, and established an inspection team with the involvement of the General Office of the City Hall, Office of Inspection, Bureau of Supervision, and Environmental Protection Bureau to regularly check progress of the four campaigns and hold accountable those who failed to achieve set tasks. With concerted efforts, the environment in

Chongqing improved dramatically. In 2006, the State Environmental Protection Administration announced the appraisal of environmental quality of 47 key cities, among which Chongqing ranked in the middle, as against being last in 2004.¹⁸⁴

Devolving Authority to Local Governments

Another trend around Asia involves the granting of increased decision making to local or regional authorities who are better able to manage resources and address scarcity and efficiency issues. In Viet Nam, for instance, the Law on Water Resources has introduced important new concepts, including integration of water management on a river basin basis and planning for water resources according to river basins, as discussed on page 90.

Such devolution, while generally favorable, comes with significant challenges in the transition. A common scenario is that national-level agencies are reluctant to devolve regulatory authority, while local governments are characterized as incapable of properly exercising their increased responsibilities. The Philippines offers a good example. The country has strengthened pollution control laws by passing new or amendatory legislation on various issues—such as toxic and hazardous waste management (1990), clean air (1999), ecological solid waste management (2000), and clean water (2004)—and has transferred much authority and responsibility over environmental management functions from national agencies to local governments. Each new law has adopted different regulatory strategies, giving varied powers and responsibilities to existing entities, such as the Department of Environment and Natural Resources (DENR), local government units (LGUs), and specially-constituted multisectoral management bodies. While implementation mechanisms are slightly different under each law, implementation of the new laws has not always been smooth.¹⁸⁵

¹⁸⁴ AECEN. 2006. *Survey on Status Quo and Problems of Environmental Compliance and Enforcement in China: Case Study of Chongqing*. Available: <http://www.aecen.org/document.htm>

¹⁸⁵ AECEN. 2004. *Environmental Compliance and Enforcement in the Philippines: Rapid Assessment*. Available: <http://www.aecen.org/document.htm>

For instance, the new ecological waste management law requires the conversion of unsanitary dumps into “controlled dumps” and eventually to sanitary landfills, but there are little funds available to implement this. Instead, local governments are expected to generate their own funding through fees, which is not happening in most places. The DENR is pushing local governments to meet the requirements for proper disposal or it will initiate cases against violating local government. However, many local government officials are unaware of their responsibilities under the law, and many of the obligations of LGUs require technical capability they do not currently possess.

Recent laws in the Philippines also have the tendency to create specialized multisectoral bodies to address specific issues, among these are the governing board for airsheds (under the Clean Air Act) and the governing board for water quality management areas (under the Clean Water Act). Each of these bodies requires membership and participation from national agencies, such as DENR, and LGUs located within the defined management areas. An LGU can potentially be a member of several of these bodies that have overlapping geographical boundaries.

Multistakeholder management or policy bodies have the advantage of broad support from all sectors. However, a number of bodies have been created with the same memberships or representations. Some of these bodies could potentially be merged because their functions are performed by the same set of members clothed with different mandates. DENR plays a critical role because it invariably co-chairs and provides secretariat support for these special bodies. These are additional duties for the agency without a corresponding increase in budget or personnel.

Despite the problems encountered in decentralizing environmental functions, countries like the Philippines should be applauded for their efforts, and national or central governments should continue to grant increased powers to regional or local authorities. For some functions, regional or local authorities have a more complete understanding of conditions and needs, and can better respond to program needs within a national framework. Overall, devolution and autonomy can foster increased efficiency and equity.

The challenge is to strike a balance on what responsibilities are retained at the national level and

what are devolved to local levels. At a minimum, national agencies should retain authority on national standard-setting and policy making and issues related to transboundary pollution. National agencies should also retain ultimate enforcement powers over responsibilities devolved to local authorities.

However, functional responsibilities and tasks of national environmental agencies should be completed by the lowest competent unit, in keeping with the principle of subsidiarity. The responsible environmental national agency should also build and strengthen the capacity of subnational units and provide the necessary oversight, implementation support, and coordination, including policy guidance, staff training, reporting results, and establishing appropriate funding and reporting mechanisms.

Lack of Resources

According to recent estimates, government spending on environmental protection amounts to less than 1% of GDP in Asia and the Pacific. Japan, with an average annual outlay of 1.8–2.0% of GDP, spends the most on environmental protection, followed by the Republic of Korea with 1.3–1.6%, Singapore with 1.2–1.5%, and Taipei, China, with 1.0–1.2% of GDP.¹⁸⁶

At the other end of the scale, Viet Nam spends only about 0.1–0.3% of GDP, and PRC, Indonesia, and Philippines, 0.5–0.7%. Malaysia and Thailand both invest almost 1% of GDP on the environment. India's expenditure is not fully documented because of the fragmented structure of government, but is believed to be less than 1% of GDP, despite a markedly higher priority accorded to the issue since 1992.¹⁸⁷

In Viet Nam, despite the recent enactment of important environmental policies and legislation, the effectiveness of the Government's environmental protection program and its enforcement efforts are severely hampered by limited institutional capacity, lack of technical expertise, and insufficient funding. Under the present budget, the agencies are hindered in effectively repairing and upgrading environmental

¹⁸⁶ Boyd, Alan. 2002, 26 November. *Environmental Cost of Asia's Development*. Asia Times Online. Available: http://www.atimes.com/atimes/Asian_Economy/DK26Dk01.html

¹⁸⁷ Ibid.

infrastructure projects, as well as investing in strengthening technical skills of officials. Insufficient resources also prevent investment in supporting facilities to upgrade production equipment and apply advanced technology to treat wastes by domestic enterprises.

Environmental protection agencies also continue to experience a shortage of personnel in charge of environmental protection, particularly at the local level. According to a Ministry of Environment and Natural Resources Report presented at the National Environment Workshop in April 2005, Viet Nam has only some 500 officials in charge of state management over environmental protection—a very small number of officials compared to neighboring countries. In general, the personnel also lack strong environmental backgrounds and training to support program implementation. In addition, Ho Chi Minh City has 200 officials in charge of environment management, including full-time and part-time employees in both the city's and district-level natural resources and environment departments. This number of environmental officials is simply too small to provide adequate environmental management and protection to a city of nearly 8 million people.¹⁸⁸

As a result, according to the *2005 Environmental Sustainability Index Report*, Viet Nam's ability to protect its environment ranked lowest of the 10 Association of Southeast Asian Nations (ASEAN) countries and 98th among 117 developing countries.¹⁸⁹ This sustainability index benchmarks a nation's capacity for environmental stewardship based on 21 evaluation indicators, including carbon dioxide and greenhouse gas emission, water quality, air quality, land, environmental capacity, science and technology development, natural resources management and capacity, and capacity to reduce population pressure.

In India, a recent assessment that identified human and institutional capacity limitations at both the central and state levels found that the human resources structure in most state pollution control boards (PCBs) is heavily dominated by nontechnical staff. For example, in the Andhra Pradesh PCB, there are only 88 technical staff, 25% of the total, resulting in a situation where one technical person is required to monitor 100 polluting installations. Most of the professionals are engineers, with very few legal or policy experts. In an extreme case, the Arunachal State PCB has no staff of its own and is run by personnel of the State Department of Environment and Forests.

Even in many states where PCBs are doing well financially (e.g., Maharashtra, Uttar Pradesh, Tamil Nadu), they cannot get approvals from the respective state governments to hire more staff. In addition, the low level of professional training contributes to the lack of institutional capacity. There is no formal procedural or technical training in any state PCB, nor are there minimum training requirements specified by the central PCB. Less than 1% of total state PCB expenditure goes to staff training.¹⁹⁰

Some countries are increasing their budget allocations for environment protection, beyond the regional norm of less than 1% of GDP. The PRC, for instance, is projected to increase spending on environment to 1.5% of GDP during the next 5 years.¹⁹¹

¹⁸⁸ AECEN. 2005. *Environmental Compliance and Enforcement in Vietnam: Rapid Assessment*. Available: <http://www.aecen.org/document.htm>

¹⁸⁹ Ibid.

¹⁹⁰ AECEN. 2006. *Environmental Compliance and Enforcement in India: Rapid Assessment*. Available: <http://www.aecen.org/document.htm>

¹⁹¹ Ahmad, Nessim J. 2005. Making Profits, Protecting Our Planet: Corporate Responsibility for Environmental Performance in Asia and the Pacific. Speech at the 6th Asia-Pacific Roundtable for Sustainable Consumption and Production. Melbourne, Australia. 10 October.