

Energy development and environmental NGOs: The Asian perspective

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Energy sector development is often identified as the focus of environmental action because of the severe environmental impacts of energy exploration and utilization, driven by the increasing demand for energy services (IPCC 1996). The conflict between energy production or use and environmental sustainability is seen as the main issue attracting the attention of nation-states worldwide. This chapter aims at analysing the role of NGOs in Asia in the energy sector. First, it will describe the characteristics and means of NGOs as they are involved in the conflict between energy production or use and environmental protection. Second, it will focus on NGOs' involvement in decision-making. Third, it will review the relationships of NGOs with governmental agencies, the private sector, the scientific community, and international aid agencies. Fourth, it will analyse the relationship of international NGOs with local and regional NGOs.

The development process in the energy sector is complex and includes many components. The issue area of energy production covers, for example, the construction of new power plants, including fossil-fuel-based power plants and hydroelectric dams. In this area of concern, NGOs often take radical approaches, such as lobbying and protesting against dominant development practices that are considered to be environmentally questionable. On the other hand, energy conservation, demand-side management, lifestyle changes, and the sustainable use of biomass resources have all become concerns of many stakeholders who are inter-

ested in changing energy consumption patterns and related development choices. In this area of NGO engagement, a participatory approach is often used to mobilize as many interested social groups as possible. The Green Movement in Korea is an example (Jeong and Lee 1996, 187–197).

Energy sector development and environmental protection in Asia have been integrated into development processes through the involvement of five different types of social institutions. They include governments, multilateral and bilateral aid agencies, the private sector, the scientific community, and NGOs. Their actions and interactions are the primary sources of societal response to critical development and environment issues (Gan 1995).

Governments traditionally play a leading role in shaping energy development and environmental protection. They often dominate development processes through a top-down approach, with command-and-control methods as a steering mechanism. This mechanism is often criticized as ineffective, and as operating as a barrier to greater energy efficiency and improved flexibility in operation, because it tends to diminish the potential for citizens' participation and discourages communities' self-involvement (Munasinghe 1991, 31). Multilateral and bilateral aid agencies cooperate with governments in large energy development projects. Many aid programmes are oriented toward large-scale projects that are often environmentally questionable, as often claimed by NGOs. The environment is a relatively new item on the agendas of development aid agencies. However, international organizations such as the World Bank (1997a) have increasingly considered environmental concerns when financing development aid projects. The private sector involved in energy development has traditionally been suspicious of environmental issues because of its business orientation, which often disregards environmental externalities. The private sector is increasingly being pushed by governmental regulations, and to a lesser extent by citizens' groups, towards an environmentally more benign approach. In general, environmental awareness has been increasing within the private sector, shaped both by internal environmental awareness and by external pressures such as governmental regulations. The scientific community includes scientists, engineers, and sectoral specialists. Scientists and policy advisers have moved many domestic and international organizations towards dealing with problems related to energy production or use and environmental protection, and towards changing their policy priorities. Scientists often play a critical role in fostering policy changes in environmentally benign directions.²

NGOs have established different working relationships with other actors in order to exchange information and collaborate on issues related to energy and environmental protection. Through formal and informal networks, NGOs shape the attitudes and operation of other social insti-

tutions.³ NGOs often act from below and tend to engage in several issues at a time. Through advocating, opposing, negotiating, and consulting activities, NGOs contribute to setting up policy issue networks that link the general public from local communities upwards with governmental decision-making bodies at various levels.

Energy development and environmental NGOs in Asia

For the period 1980–1995, economic development in Asia was the most dynamic compared with other regions in the world. The East Asian and Pacific region had an average annual GDP growth rate of 7.6 per cent in the 1980s and of 10.3 per cent in 1990–1995. In the same periods, South Asia had relatively low rates of growth at 5.7 per cent and 4.6 per cent, respectively. Compared with world average growth rates of 3.1 and 2.0 per cent in the same periods, Asia performed relatively well as reflected in economic indicators (World Bank 1997b, 235). The high economic growth was sustained by increasing energy use. From 1981 to 1991, energy consumption in Asian developing countries doubled from 700 Mtoe (million tonnes of oil equivalent) to 1,350 Mtoe, and electricity consumption increased 2.5 times from 500 TWh (terawatt-hour) to 1,200 TWh (Sadiq 1996, 86).

Not surprisingly, rapid economic growth and increased dependency on energy use in Asia have been achieved at a great expense to the environment (Clad and Siy 1996, 52–58; ADB 1990, 40–50). The stark contrast between Asia's fast economic development and rapidly deteriorating environment, particularly in urban-industrial areas, makes this region the foremost test for sustainable development. Energy plays a central role in this process. The tension between energy sector development and associated environmental risks has led to increasing concerns for ecological sustainability in the region. In many countries of Asia, energy development is characterized by the expansion of fossil-fuel-based power generation and the development of large-scale hydroelectric power plants.⁴ Industrialization and rapid urbanization are the main driving forces of this development.⁵

In rural areas, energy supply often does not meet demand. According to the World Bank, over 2 billion people in the world lack access to electricity and rely on biomass fuels as they have no better alternatives (World Bank 1996). The continuing conflict over the lack of fuelwood and commercial energy supply, i.e. electricity, has led to ecological imbalances in rural areas. With over 80 per cent of rural energy consumption based on non-commercial biomass in most Asian developing countries, such as China, India, Indonesia, and the Philippines (UNDP 1997, 196),

the environment is bound to be severely affected. Burning biomass for cooking and heating in rural areas has intensified in some regions due to increasing population pressure (Brandon and Ramankutty 1993, 21–32). This creates further conflicts over natural resources and energy use.

Balancing energy development with environmental sustainability has become one of the greatest development challenges in Asia. There are uncertainties in achieving environmental objectives, such as improving urban air quality and providing clean water to urban and rural residents. This is mostly due to governmental subsidies to the energy sector and resources use (Daly 1994). There is little doubt that environmental risks in Asia, and elsewhere in the world, are not only associated with the complexities of the energy-environment interplay, but also related to the effects of economic growth, population pressure, poverty, and urbanization.

The costs of environmental externalities produced by the energy sector are often excluded from economic cost-benefit analyses when development projects are decided by governmental agencies. Monopoly is a common characteristic of energy development and service sector operation. The interest of the energy sector lies mostly in production expansion to maximize its influence and power. The recent trend of decentralization in the energy sector has legitimized private sector involvement in energy development (Munasinghe 1991, 31). With government support, and sometimes with the help of international development assistance agencies, public and, more recently, private utilities are bound to defend their common interests in energy sector expansion. For this to occur, great challenges in terms of environmental consequences of energy sector development are to be expected.

Asia's development has been characterized by the growing presence of the NGO community in political and social activities (Princen and Finger 1994, 1–3). NGOs have evolved into actors offering a social critique of political development processes. NGOs have also become a widely accessible provider of social services to millions of people in rural communities.⁶ The development of environmental NGOs and their involvement in environmental activities must be interpreted from a historical perspective. NGOs can be considered as part of the massive social movements that challenge dominant structures and processes of authoritarian regimes through which political élites maximize their power and interests. The free associations of citizens in Asia have a long tradition, which can be traced back to the pre-colonial communal societies (Serrano 1994, 29).

Much of the growth of NGOs in Asia can be traced back to the post-Second World War period of the late 1940s and 1950s, when local residents and communities developed their networks of contacts. During the 1960s and 1970s, increased income in some Asian countries led to an

expansion of the middle classes. These educated and better-informed social strata tend to exercise their influence through participatory social involvement. Environmental NGOs emerged in the 1970s as part of the global environmental movement. They developed further in the 1980s, and expanded rapidly in the early 1990s (Thomas 1992, 27–29). This phenomenon owes its origin and persistence, in part, to the deteriorating environmental situation in Asia following rapid economic development and the so-called modernization movements promoted by governments. Increasing industrialization has given rise to pollution problems that create environmental risks.⁷ NGOs sometimes challenge dominant development activities when they see the risks to their interests, such as traditional rights of land use, being eroded and undermined by large-scale project development.

Three different types of NGOs

NGOs can influence energy development due to their expertise. Experts and expertise refer to those professionals with specific knowledge, training, and experience. In public policy-making, their knowledge is used to define policy priorities and set agendas for action. NGOs usually interact through networks that play a critical role in facilitating communication and cooperation between organizations and individuals. There are basically three types of Asian NGOs involved in the debates about energy production or use and environmental protection: research-oriented NGOs, lobbying NGOs, and mediating NGOs.

Research-oriented NGOs

Research-oriented NGOs are those with informational and advisory characteristics. They are motivated by the value of their service accomplished through scientific knowledge development, consultation, and policy advice. Many see their main function as knowledge providers to impart issue-relevant scientific knowledge to policy-makers and the general public. Their main interest is in research, to generate debate and knowledge within and between the scientific community, governments, the business community, and civil society. They intend to increase the scientific understanding of environmental risks of development. Many research-oriented NGOs are think-tanks with either public or private ownership. Their means of operation are through scientific publications, conferences or workshops, and media reporting. Traditionally, their roles are limited to being the agents that carry out projects designed by gov-

ernments or international agencies. Increasingly, they have become independent players in decision-making processes with a more participatory perspective.

An important function of this type of NGO is to provide advisory services to governments with regard to the design and assessment of public policies aimed at increasing energy efficiency and reducing costs of energy consumption. For example, the Tata Energy Research Institute (TERI) in India is an influential research institute in the area of energy and the environment. It has played a critical role in informing the Indian government, and more broadly the international community, of the important environmental issues related to energy production and consumption. This type of NGO tends to act in a “soft” manner, often collaborating with their partners rather than opposing them. Another example is the Energy Research Institute of the State Development Planning Commission (SDPC) in China. However, this is a government-supported body providing advice to energy policy-makers rather than an independent think-tank.

Many NGOs of this type have grown out of governmental bodies. They prioritize research activities, instead of being action-oriented. The Beijing Energy Efficiency Centre grew out of the Energy Research Institute of the SDPC. Although it receives support from the Department of Energy (DOE) of the US government, it maintains close ties with governmental agencies and operates within the framework of official contacts. Its objective is to facilitate the transfer and dissemination of environmentally friendly energy technologies. In recent years, some technical assistance projects under the banner of capacity-building, funded by international aid agencies, have helped the growth of such institutions. In turn, this has given rise to what may be called the scientification, or professionalization, of decision-making processes (Jamison 1996).

Lobbying NGOs

Lobbying NGOs are those with critical, sometimes radical, attitudes toward development projects with major environmental impacts. They criticize important energy development activities that carry high environmental risks and have an impact on local communities and people. This type of NGO focuses on advocacy when they conduct lobbying activities against the policies of governments and international aid agencies.⁸ They often attempt to attract media attention to inform the public and thereby exert pressure on governments. They also present themselves at international meetings to publicize their criticisms. The presence of the Greenpeace movement in Asia is a clear example. In large energy projects, such as hydroelectric dams, the role of lobbying NGOs cannot

be underestimated, as their criticisms sometimes lead to reassessments of aid policies, as shown in an Indian case below.

Rapid industrialization and urbanization drastically increase demands for energy supply and services, especially for electricity. In response to the demand from the industrial and commercial sectors, governments in Asia have targeted the development of coal- and oil-based power plants, hydroelectric power stations, and, increasingly, nuclear power plants as main objectives for development. This is the clear case in China, where the use of coal dominates energy supply and demand (Gan 1998b). Increasing awareness of the potential environmental and social-ecological impacts of large hydroelectric dams has caused NGOs to respond strongly to this type of energy development. Resistance from affected local communities has made it difficult for governments to proceed with such projects. The best-known cases of hydroelectric dam projects are the Narmada Dam in India and the Three Gorges Dam in China. These projects have inspired strong public protest that led governments and international aid agencies to change their policies.

The Sardar Sarovar Dam and Power Project in western India, known as the Narmada Dam project, is one of the energy projects that have sparked the most public debate and protest. The project was proposed by the Indian government and strongly backed by governmental energy development institutions. The World Bank was originally involved, providing loans for the project. Largely concerned about the displacement of local tribal groups because of the construction of the dam, NGO lobbying activities across nation-states drew international attention. NGOs, such as the Narmada Bachao Andolan, criticized the anticipated environmental impact of the project, particularly the impact on the ecosystems upon which local people depended for their livelihood. Many Indian NGO groups, plus some concerned international NGOs, participated in this public protest, including research institutions, indigenous groups, and the mass media. Demonstrations and publicity campaigns were organized, putting pressure on the World Bank to stop its financing of the project. Eventually, the World Bank loan for this project was withdrawn at the request of the Indian government in 1993,⁹ although the project is still supported by the government. NGO protest against this project helped shape the World Bank's policy on the environment and human settlements. The World Bank has now initiated a policy to encourage NGO participation in resettlement plans. It also requires consultation with potentially affected social groups and local NGOs in environmental assessments for large development projects (Malena 1995, 23).

After more than half a century of debate, the Chinese government decided in 1992 to build the world's largest hydroelectric dam at the Three Gorges of the Yangtze River. The project aims to generate 18,200 MW a

year, which is enough to supply the power needs of 150 million people. The dam is expected to cost US\$11 billion over an 18-year period (and, when interest charges are included, this figure goes up to US\$25 billion). The main concern of opposition groups is that the dam will force the relocation of more than a million people. Opponents say it would be cheaper and less risky to build smaller dams upstream of the Three Gorges.¹⁰ The project sparked protest among NGOs, mostly through lobbying activities. The International Rivers Network, Friends of the Earth, the Center for Marine Conservation, International Three Gorges Coalition, Probe International of Canada, the WWF in Hong Kong, and the Asian Pacific People's Network in Malaysia coordinated with several Chinese environmental groups to protest against the construction of the dam. Criticisms and protests against the dam have been made by prominent scientists in China and abroad. Dai Qing, a leading Chinese journalist, was jailed for a year after she published a book of essays criticizing the dam (Dai 1997). Despite the pressure from NGOs, the government decided to approve the project with full state support. The Chinese government muffled criticisms and unleashed pro-dam propaganda. In 1992, two-thirds of the 2,633-member Chinese People's Congress voted to build the dam, only 12 votes more than the minimum required. This is one of the lowest levels of support ever given to a government-backed project. The dam is now under construction, fully financed by the government. International agencies such as the World Bank and Asian Development Bank (ADB) have stayed away from financing the project, mostly for fear of criticism from NGOs (Magagnini 1992).

By contrast, the Xiaolangdi Dam on the Yellow River, China's second largest dam project, is well under construction. When completed in four years' time, the US\$4 billion dam is expected to contain the type of "catastrophic" floods that have killed hundreds of thousands of locals over the past 2,500 years. The Xiaolangdi Dam project has "proceeded without [...] controversies" (*Greenwire* 1996). Many NGOs were preoccupied by the Three Gorges Dam and paid inadequate attention to the Xiaolangdi Dam project. The World Bank has offered a loan of US\$430 million to the project, which is by far the largest loan ever provided to the Chinese government (*People's Daily* 1997).

Mediating NGOs

Mediating NGOs are those providing network services. They are usually competent in establishing networks of contacts, domestically and internationally. Their main interest lies in making connections and providing

information on important issues to concerned interest groups and individuals. Networks play a critical role in facilitating communication and cooperation between organizations.

In the 1990s, it has become evident that the emerging information society provides opportunities to empower people at different levels of society (Baxter and Lisburn 1994; Willcocks and Currie 1998). The increasing accessibility of information through Internet services has provided a powerful means of communication for common people and social groups. This technological development has broken down the information monopoly traditionally maintained by governmental institutions. It also enables more widespread popular access to, and transfer of, information across national boundaries. The use of electronic mail has facilitated more networking and collaborating activities. As a result, many NGOs increasingly operate on a global scale rather than being restricted to a regional and local presence.

One example is the operation of the Professional Association for China's Environment (PACE), which was established in 1996. PACE has expanded rapidly since 1997, and it has now more than 300 members worldwide. Its operation consists of e-mail communications for sharing information and networking activities. PACE's work has, to some extent, facilitated contacts between the US and Chinese governments on issues related to energy and the environment.

The limitations of NGOs

There is an overlapping relationship among these three types of NGOs. Although TERI is basically a research NGO, it is also involved in networking activities. It acts as the secretariat for the Asian Energy Institute (AEI), a network organization with 13 member institutes across Asia. The AEI's work involves sustainable development and the use of energy resources. Its objectives are to promote information exchange, facilitate sharing and dissemination of knowledge, undertake research and training activities that are of common interest to its members, and analyse global energy developments and their implications.

Governments are often criticized for their lack of accountability in dealing with programmes for local energy development that sometimes benefit the rich instead of the poor.¹¹ Their means of governance are questioned by most NGOs as having a top-down approach with inadequate consultation with the local people concerned. Meanwhile, the strategy of NGOs offers an alternative approach with a bottom-up orientation. They provide services to local communities with flexible organizational structures and more democratic processes. Their objectives are

to oppose dominant players and institutions with the intention of empowering the poor (*Civil Society* 1997).

NGOs have also limitations. Many Asian NGOs are small in both size and scope of operation. As most of them are rooted in local activities, lack of access to resources and information is common. NGOs can suffer from financial and technical constraints. Some of them depend on foreign donations and lack long-term financial security. Attracting funding is one reason for engaging in international activities.

Accountability and performance are interrelated issues. Many smaller NGOs are loosely structured and have limited accountability. Management and planning in these NGOs may be weak, or too flexible (Edwards and Hulme 1995). Many aid agencies are sceptical of the accountability of local NGOs because of the problem of measuring their performance. It has been increasingly realized that lobbying is not enough to generate proactive action for sustainable development. Therefore, more cooperation in project activities is needed at the local level.

Relationship between Asian NGOs and international NGOs

Asian NGOs are rapidly expanding their areas of activities across national boundaries and responding to issues with international orientations. They present themselves at international gatherings and conferences (Princen and Finger 1994, 4–5). They often act as advocates of international protest against dominant institutions. In this process, key persons play a central role and have gained international reputation. For example, the prominent environmental activist Vandana Shiva from India is recognized internationally as a leading spokesperson for Asian environmental NGOs. Her arguments often attack the policies of dominant international institutions, such as the IMF and the World Bank (Shiva 1991, 58–60). Khor Kok Peng from Malaysia, who also acts as an advocate for third world countries opposing unsustainable aid activities and policies, is another example.

NGOs in Asia are making their way into arenas traditionally occupied by NGOs from industrialized countries. Protest against international aid agencies is one area that attracts a lot of attention. There are differences in performance among Asian NGOs from industrialized countries, particularly Japan, and those from developing countries. Many South-East Asian NGOs are more actively involved in international environmental disputes than those from Japan. For example, many local residents in Japan have viewed global climate change as a relatively remote issue

compared to others that immediately affect their health and livelihood, such as air and water pollution.

In the last few years, many NGOs in Asia have become involved in one way or another in climate-change-related activities. Interactions on global climate change have helped to improve the relationship between NGOs from different backgrounds and with different motivations. This has become a common phenomenon in transnational relations.

International NGOs have become more involved in Asia than ever before. This is mostly because of Asia's growing importance in the world economy, politics, and the environment. Many NGOs in the North are seeking partners from the South for collaborative activities, such as research, campaigning, and networking. This trend can be understood as an interdependent relationship, driven by demand for closer collaboration to link the local with the global, and vice versa. Large international NGOs, such as the WWF, Nature Conservancy, and Greenpeace International, have all established close contacts and collaborating relationships with local NGOs in Asia.

Since the early 1990s, a broadening and intensification of relationships between Asian NGOs and those from industrialized countries has been seen. In 1991, about 50 NGOs from Asia, North America, and Europe worked together in a campaign to protest against the establishment of the Global Environment Facility (GEF) and the operation of the multilateral aid agencies in their environmentally destructive activities in developing countries. In many respects, the operation of the GEF has provided an opportunity for many NGOs, including Asian NGOs, to be involved in activities that shape the global environmental agenda. This is evident from the NGO consultation meetings prior to the GEF meetings. These consultations have affected the formulation of GEF policy and strategies (Gan 1993a, 208).

One could argue that there is bound to be diminishing support from Northern NGOs for governments in developing countries. The main cause of this shift may be attributed to closer contacts between Southern and Northern NGOs. Although the WWF is committed to working with governments for its country programmes, increasing emphasis is being put on support for non-governmental conservation institutions. WWF Nepal assists a number of agencies in a variety of ways. Support includes funding staff training, purchasing field equipment, upgrading office facilities, and participating in national and international seminars and events. Following the democracy movement in 1990, hundreds of local NGOs are now registered in Nepal. Many of them function as pressure groups, catalysts, and educational forums, while others implement conservation and development projects. Many of these NGOs are committed to environ-

mental conservation. The WWF is helping through its project “Support for Local NGOs.” Supporting grassroots NGOs with practical and original ideas promotes conservation as part of the daily lives and actions of Nepal’s people.

There is also increasing cooperation among NGOs across Asian countries. NGOs see the advantage of building up coalitions to strengthen their positions in international environmental movements. This is particularly seen in South-East Asia where networks of NGOs are blooming. NGOs come to define common interest areas for collective action. They have built up their collective alliance by holding large regional meetings and conferences.¹²

Interrelationships between NGOs and other social actors

In the following section, the interrelationships between NGOs and other societal institutions, such as governments, the private sector, the scientific community, and international development assistance agencies, will be reviewed. The purpose is to point to the interdependent relationships among these actors.

Governments

In the analysis of external forces that are shaping the environmental discourse, three social institutions have been distinguished: NGOs, governments, and the private sector. Table 7.1 shows the main characteristics of these three institutions interacting in energy production or use and environmental protection.

The relationship between governments and NGOs has gone through major changes in recent years. Concerns about sustainable development have brought governments and NGOs closer together than before as governments increasingly depend on NGOs for local consultation and professional assistance. Governments increasingly see NGOs’ connections with local communities as an important factor for ensuring cost-effective implementation of projects.

On the other hand, NGOs realize the need to collaborate with governments for gaining financial support and legitimacy. The latter is important in countries with authoritarian regimes. Through establishing closer ties with the government, NGOs can minimize the risks that may arise from political uncertainties. NGOs’ attitudes toward governments differ from country to country. In some countries in Asia, NGOs have been dependent on government subsidies for their activities. For example, NGOs in Viet Nam and China are usually semi-public in order to

Table 7.1 Characteristics of social institutions

	Environmental NGOs	Governments	Private sector
Characteristics	Social critique	Bureaucracy	Commercialization
Main interests	Defend local interests Ideology/user interests Engage in politics	Control of resources Retention of power	Profit maximization Market expansion
Priorities	Poverty reduction Natural resource conservation Environmental protection	National economic development National security	Market share Risk minimization
Instruments	Monitoring Lobbying Public debate Media reporting Environmental impact assessment	Negotiation Financial control Political pressure Expropriation Regulation Incentives	Bidding Accounting Cost-benefit analysis

assure their legitimate rights and access to moral and financial support. The Chinese NGOs that attended UNCED were selected and sent by the government as part of the official delegation. This relationship is currently changing due to economic liberalization and decentralization of the political system and diminishing government support. New types of NGOs tend to distance themselves from government control and try to work on less sensitive issues, avoiding any challenge to governmental legitimacy.

Private sector

The private sector's relationship with NGOs has been little studied thus far. This is a complicated issue because it deals with diverse sectoral interests and, sometimes, conflicting organizational objectives. Many industrial enterprises find it difficult to agree with NGOs, especially on environmental aspects of development projects. The private sector has been criticized by NGOs for being responsible for severe environmental damage in development projects. Compared with international aid agencies, the industrial sector has made limited efforts to improve its relationship with NGOs.

Because of rapid industrialization in Asia, many NGOs have found it difficult to campaign effectively against major development projects funded by large international corporations which are perceived as having caused environmental damage. The ineffectiveness of NGOs in dealing with the private sector reflects the issue of legitimacy. NGOs feel incapable of pushing the business community toward responding to environmental externalities in their operations. However, there are cases of industrial pollution control, such as the Prokasih programme in Indonesia, which have proved successful, and at low cost. This programme for pollution control evaluation and rating identifies the level of industries' compliance with regulations on environmental management; improves environmental impact control efforts through active participation of the business community; motivates business operators to apply and implement cleaner technology; and creates self-confidence in the development of business through the presentation of awards to participating industries on their accomplishments.¹³ It is claimed that part of the success in Prokasih is due to community participation as a watchdog of pollution control (Brandon and Ramankutty 1993, 80).

Scientific community

In many cases in Asia, NGOs and the scientific community are interrelated. Many scientific institutions regard themselves as NGOs, since they do not receive regular financial support from government and feel au-

tonomous in their operations. Scientists play a critical role in fostering changes through their interactions with NGOs. In some cases, in Asia and elsewhere in the world, academics act as both scientists and environmental activists.¹⁴

Professionalization and specialization are two aspects in NGO development. NGOs become increasingly professionalized due to the increasing complexity of their objectives and the need for better scientific understanding of the issues. Consequently, this requires staff members with advanced educational backgrounds and professional training and experience. It can be argued that NGO staff members have become more specialized than ever before because of the demand for both disciplinary specialization and interdisciplinary collaboration in their work. NGOs have to deal with cross-sectoral issues, which requires interdisciplinary knowledge and training across traditional disciplinary boundaries. Compared to the relationship with other social institutions, the scientific community usually keeps relatively good relations with NGOs, since they have little conflict in their objectives.

International development assistance agencies

The relationship between NGOs and the international aid community has undergone drastic changes in recent years. Most aid agencies, such as the World Bank, have set policy guidelines with a view to providing NGOs with better access to information, consultation, and participation in project design and operation (Malena 1995).

Mostly because of the increasing pressure and criticism of NGOs with regard to aid policy and practice, improving relationships with NGOs has become a priority of aid agencies. NGOs have also realized the need to cooperate more with international aid agencies and the advantages resulting for them from such cooperation. The Small Grants Programme under the Global Environment Facility is an example. Many NGOs have found it useful to be involved in this framework of action, although grants for each project are rather limited (Gan 1993b).

Beginning in 1987, providing assistance to NGOs has become a policy priority in the ADB. This represents a marked departure, although still small, from its previous policies that put heavy emphasis on governments. Areas of cooperation include information-sharing, practical assistance in developing and implementing programmes and projects, and, where possible, co-financing projects with national governments (Kappagoda 1995, 159). The ADB asserts that participation in ADB activities helps NGOs expand their operations in areas such as project preparation and implementation, community organization, and social mobilization. Some specific advantages of working with NGOs are that NGOs, with direct

knowledge of local communities, can share expertise with the ADB and governments in identifying, preparing, monitoring, and evaluating development policies, programmes, and projects; and that NGOs help the ADB and governments prepare and implement specific programmes and projects. For the ADB, NGO input is important for addressing specific concerns such as involuntary resettlement, protection of indigenous people, participation in development planning by beneficiaries and affected persons, and benefit monitoring and evaluation. Another advantage is that NGOs can provide co-financing in the ADB's loan and technical assistance activities, either by financing selected activities or by providing resources, such as consulting services, staff assistance, or facilities and equipment (ADB 1998).

Because of the social protest from NGOs, the ADB admitted that it has given little attention to alternative energy development, such as end-use energy conservation and efficiency improvement. The Meralco Distribution Project, approved in 1992, thus presents a major new development in the ADB's energy loans to the Philippines as it seeks to address electricity shortages in the country by looking at efficiency improvements, conservation measures, and demand-side management. The project was carried out between 1993 and 1996 with a US\$230 million loan from the ADB. The remaining cost of US\$92 million was met through a co-financing arrangement with local resources. With the Meralco Distribution Project as a major initiative, the ADB has begun to implement a comprehensive energy-lending strategy for the Philippines, with capital investments by both private and government agencies that focus on energy efficiency improvement and the development of renewable energy systems.

Conclusions

In summary, Asian NGOs play an important role in international and national energy and environmental activities. Their increasing presence in the world political arena has contributed to reshaping agendas of governments and international aid agencies. Their operations also affect their relationships with, and the behaviour of, the scientific community and the private sector. NGOs have facilitated the establishment of critical links between local communities on the one hand, and governments and international aid agencies on the other. Governments and aid agencies have benefited from interactions with the NGO community, but have also been puzzled about how to deal with them in proper and cost-effective ways.

NGOs' involvement in energy and environment issues cannot be con-

sidered in isolation. They constantly change their modes of involvement and participation, according to local and international circumstances. One example is their interest in global climate change debates and actions. Many have changed from sceptical to proactive attitudes. Their engagement in sustainable energy and environment activities has helped establish new and critical links among societal institutions. They base their strategy for survival on linking local with global perspectives.

NGOs' presence as a particular social phenomenon can be characterized as having been developed from below. NGOs have developed a public space that is not, and cannot be, filled by other societal institutions, such as governments, international aid agencies, the scientific community, and the private sector. In contrast to many institutions generated by governments from above, NGOs are deeply rooted in societal contexts. The development of NGOs as a social entity is crucial to the well-being of nation-states and international communities. The influence of NGOs across national boundaries can be seen as part of the globalization process and it will have far-reaching effects on public policy. Their influence on sustainable energy development in Asia is not unique; similar developments can also be seen in other regions of the world.

It is argued that this phenomenon of people's involvement is driven, on the one hand, by the growing democratization of the political systems in the region. More freedom of political choice because of relaxation of regulations has empowered NGOs to function as a source of social critique against dominant societal actors. On the other hand, increasing economic integration and liberalization between countries and within the region has provided incentives for the development of the NGO sector, with diversified sources of funding and opportunities for social intervention.

Several characteristics can be generalized from the involvement of Asian NGOs. First, NGOs will continue to create new social linkages, or webs of contacts. They will help establish and improve relationships between the general public and other social institutions: governments, international agencies, the private sector, and the scientific communities. Second, the diversification of NGOs will continue to increase in both scope and speed. Their influence will reach far more people in society, and their power will be further strengthened by wider participation of the general public. This will be seen especially in the fields of energy and the environment. One important question that needs further analysis is how to improve the accountability of NGOs with regard to their performance in projects. Workable methodologies and criteria for evaluating NGO performance need to be developed.

The increasing involvement of NGOs in environmental activities provides good opportunities for the United Nations and the international

development assistance community. Through increasing participation of NGOs in the design, consultation, operation, and evaluation of projects, these institutions will be able to act as agents to empower people at the lower levels of society. With more incentives to support the NGO sector, greater social equilibrium could be achieved. It can be expected that NGOs will assume many of the conventional mandates that are usually undertaken by governments and specialized UN agencies. What represents the so-called global civil society is the inclusion of people's voices and needs.

Notes

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2. In China, for instance, scientists have been instrumental in establishing policy priorities for the development of new and renewable energy technologies, and they were also important actors in emphasizing the need for energy conservation in the early 1980s and beyond (Gan 1998a).
3. Institutions are sets of rules or codes of conduct that serve to define social practices, assign roles to the participants in these practices, and guide the interactions among occupants of these roles. In this chapter, institutions refer to both international and domestic institutions. For further definition and description of institutional roles in international environmental politics, see Hasenclever, Mayer, and Rittberger (1997), Young (1994, 1–8; 1996), Haas, Keohane, and Levy (1993), and Keohane and Levy (1996).
4. One example is China's energy sector development, which has shown continuous growth in energy supply through the construction of large coal-burning power plants and hydroelectric power stations, despite progress in energy conservation. See Gan (1998b).
5. By 2025, the ADB estimates that Asia's urban population will more than double from 1.1 billion to 2.5 billion, as a result of population increase and rural migration, and will make up half the world's urban population. There will be some 20 megacities, each with more than 10 million inhabitants, and 10 of these will have populations of more than 20 million (Syman 1997).
6. In South Asia, for example, the Bangladesh Rural Advancement Committee (BRAC) has more than 17,000 full-time staff, and works with over 3 million people in rural communities. It reaches nearly 60 per cent of the country's 86,000 villages. India has more than 12,000 development NGOs. In Sri Lanka, the NGO Sarvodaya works in 7,000 villages. The Muslim Youth Movement of Malaysia (ABIM) has more than 50,000 members (Edwards and Hulme 1995, 3). The total number of NGOs in Indonesia has reached more than 10,000 (*Financial Times* 1997a). The Philippines has some 18,000 NGOs (Princen and Finger 1994, 2). In China, NGOs have mushroomed over the past 15 years, although environmental NGOs are small in proportion to the rest (Wang, Zhe, and Sun 1993).
7. Air pollution in Indian cities has reached a critical level, caused by increasing numbers of motor vehicles. It has contributed to severe human health problems (Jordan 1997).

8. One example is the citizens' campaign against the construction of the Naerinchon Dam project in South Korea, which has been supported by the government. This campaign is led by the Citizen's Coalition for Economic Justice. Local residents have shaved their heads as a means of public protest (Han 1997, 19–21).
9. According to a news release from the Environmental Defense Fund entitled "World Bank to Cancel Loan to Narmada Dam in India," 30 March 1993.
10. For a critic review of the Three Gorges Dam project, see Dai (1997).
11. For instance, demand for electricity in developing countries is doubling every eight years. So far, the majority of energy development programmes, supported by governments, private investors, and international aid agencies, have focused on large-scale coal, oil, and hydroelectric power. Meanwhile, more than 1.5 billion rural poor worldwide, who have no access to national and regional grids, have hardly benefited from such development (*Financial Times* 1997b).
12. Examples include the "Southeast Asia Regional Consultation on a People's Agenda for Environmentally Sustainable Development: Toward UNCED and Beyond," held in Los Banos, Laguna, the Philippines, in December 1991, and the "People's Participation in Environmentally Sustainable Development," held in Puncak Pass, Indonesia, in March 1990 (WWF International 1993, 49).
13. For further information, see: <<http://www.bapedal.go.id/profile/programs/proper.html>>.
14. For example, Professor Madhav Gadgil, Indian Institute of Science, is a leading scientist, but also an environmentalist. See Gadgil 1997.

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