

IMPLICATIONS OF CURRENT DEVELOPMENT STRATEGIES FOR MYANMAR'S ENVIRONMENT

9 Environmental governance in the SPDC's Myanmar

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The speed of environmental transformation in Burma has been intensified since the State Peace and Development Council (SPDC) took power by violent military coup on 18 September 1988. Desperately needing financial capital to sustain its military power and engage in political and armed annihilation¹ of various insurgent groups (ABSDF Research and Documentation Center Office [unpublished]; Lintner 2002), the regime began indiscriminately exploiting the country's natural resources. The reality, however, is that the institutional development for environmental governance falls behind the intensified uses and abuses of the natural environment in Burma. More imprudently, the benefits generated by intensification of environmental exploitation do not improve the well-being of citizens, let alone contribute to the economic development of the country.

In 1989, the SPDC adopted an open economic policy and the announcement of its 'open-door' policies soon attracted foreign investment. The flood of foreign investment into various sectors of the economy raised concern about environmental issues. At the Earth

Summit Plus Five in 1997, the then Burmese Foreign Minister, U Ohn Gyaw, asserted that Burma's environmental problems were a result of 'underdevelopment'. As the nation strived to catch up with the rest of the world in terms of material development, natural resources became primary targets for development capital in Burma. This national quest and campaign for development posed the dilemma of 'sustainable development'.

The 18-year long political stalemate between the military regime and the democratic opposition led by the National League for Democracy (NLD) has left Burma with no constitution, no national legislative body and no independent judicial system. In other words, Burma lacks the fundamental structures of a stable society—such as political accountability, good governance and effective and equitable enforcement of the rule of law—that are essential for the sustainable management of environmental and human resources.

At this current political juncture, the lack of rule of law and good governance mechanisms poses challenges and limited opportunities for meaningful environmental governance in Burma. Taking this political condition as a fundamental basis of the challenges for environmental governance, this chapter first assesses the limited opportunities to strengthen environmental governance. Second, it discusses strategies for how people with concerns about environmental issues could overcome the challenges that exist in the current political context. Third, the chapter concludes that the primary responsibility to improve environmental governance lies in the hands of the SPDC. Three questions guide this assessment. First, how does the political instability in Burma influence issues of environmental governance? Second, what are the limited opportunities for environmental governance in the continuing political crisis in Burma? Third, how can environmental issues be utilised to create political space for self-governance and more freedom for the local population, and in turn contribute to political transition as a whole?

Before advancing further, the risks and challenges of analysing any policy in the military regime's Myanmar deserve mention. Without

the accompanying normal assessment and analysis of history, and in the current state of political crisis, any analysis of environmental policy in the SPDC's Myanmar will be a mere review of the regime's policy on paper. In Burma, official policies and even laws are usually not followed by the military rulers themselves. The country is still ruled by martial law² at best and one-man authoritarian rule at worst. Therefore, academic study of any type of policy and governance in Burma under the current military regime involves risks and challenges that come not only from the regime's control of the form and shape of official data, but from the self-censorship and information manipulation of élitist Burmese³ and international non-governmental organisations (INGOs), including the United Nations' mechanisms, working inside Burma.

Environmental transition and related issues

Environmental transition in Burma continues while political transition faces deadlock. Much of the literature and news reports focus on a narrow sense of political transition (power transfer) without paying attention to other areas, such as economic and environmental transition. In developing countries such as Burma, politics is mainly about control over land and natural resources. In short, environmental transition is no less important than political transition, which is conceived predominantly as the transfer of power from the military to a civilian government. This chapter draws attention to environmental transitions and issues under the SPDC's rule in Burma.

Overview

As one of the most fertile and mineral-rich countries in Asia, Burma is a land of 'stunning ecological diversity' (Smith 1994:12), which is reflected in the existence of the diverse cultures, histories and traditions of the many ethnic groups living with nature in the highland and lowland areas of the country. Ecosystems in Burma vary from tropical islands, rainforests and lush tracts of mangrove to great rice-growing plains in the south and snow-capped peaks of mountain pine in the north.

In addition, Burma is endowed with a rich diversity of habitat types arising largely from its unique ecological diversity. Two independent biodiversity assessments, the World Resources Institute's *Last Frontier Forests* and Conservation International's *Global Biodiversity Hotspots*, rank Burma among the top priority countries in mainland Southeast Asia, along with Laos and Cambodia.

This environmental endowment, however, and Burma's status as being rich in natural resources, which is often proudly claimed by the military leaders, is threatened by the almost unfettered exploitation of natural resources occurring within the current political crisis. In recent years, Burma has seen major resource-exploitation development projects proposed, and in some cases implemented, with large-scale impact on the natural environment and on natural resource endowment. The controversial Unocal/Total gas pipeline project to Thailand, secret and often illegal logging concessions, the Shwe field gas exploitation led by Korean firm Daewoo International, and the Salween Dam schemes were not approved by Parliament, were not conducted with any transparency, and were not the subject of any kind of public debate or consultation with the local population who will be directly affected.⁴ There were no meaningful social and environmental impact assessments for these projects. Considering the current political context in which the SPDC single-handedly conducts these development projects, without the proper participation of the local population and domestic stakeholders, one can assert that the environmental endowment of Burma is being handed over to SPDC-owned enterprises and foreign investors. In this imprudent state of environmental exploitation, the main beneficiaries are not the Burmese people or the Burmese army. Although this chapter does not address who the beneficiaries are, it is worth asking about the nature and origins of these beneficiaries because the SPDC regime would not have survived without them injecting funds to maintain its existence.

Agriculture

Burma's economy is dominated by the agricultural sector, which generates more than 50 per cent of total GDP and employs more than

60 per cent of the total labour force. The agricultural policy of the SPDC government is to increase production, but increasing agricultural production means intensive utilisation of land, water and other natural resources, in association with traditional agronomic technologies. This has a direct impact on the condition of soil and water, which, if not properly managed, could lead to environmental degradation. There is no legal or regulatory mechanism to balance the growth of agricultural industries and the increase in environmental impacts.

In addition, increasing use of chemicals and pesticides in the expansion of agricultural production could lead to soil and water pollution. Therefore, environmental problems, further exacerbated because of expected increases in population and food demand, are in the making.

Forestry

In line with the policy of 'protection and conservation of the environment', the SPDC's National Commission on Environmental Affairs (NCEA) initiated forest protection and conservation activities by establishing a Forest Conservation Committee. The NCEA states that one of the main objectives of the Forest Department is to 'manage its forest in such a way that they contribute increased sustained yield and value-added products'. From an estimated forest cover of 500,000 square kilometres, or 70 per cent of Burma's total land area in 1948, the NCEA insists that 50 per cent of the country is still covered with forest (NCEA 1992:12; Smith 1994:12). Most recently, the SPDC claims that 43.3 per cent of total land area of Burma is covered with closed forest.⁵

One of the most visible threats to Burma's environment today, however, is the rapid depletion of many of the country's once great forests. Estimates by independent observers put remaining forest cover in Burma at close to 30 per cent of its total land area. The Rainforest Action Network, for instance, has calculated Burma's annual deforestation rate at 800,000 to one million acres a year, making it one of the five highest in the world (Associated Press 2001). Another

independent source puts the rate of deforestation between the regime's claim and that of the Rainforest Action Network's report, stating that forest cover as a percentage of original forest is 40.6 (UNDP et al. 2000). The government-reported data compiled by the World Bank suggest forest cover in Myanmar declined from 60 per cent in 1990 to 50 per cent in 2002 and 49 per cent in 2005. Even though statistical data differ between the government's and independent estimates, the clear message is that Burma's forests are facing degradation at an alarming rate.

The Burmese military government claims that the degradation of forests is due to 'shifting cultivation, local fuel wood shortage, and to a certain extent, the impact of population growth'. According to research sponsored by the United Nations Food and Agriculture Organization (FAO) conducted between 1985 and 1990, the rural population (30.9 million out of 41 million, according to the 1990 census) relied heavily on fuel wood and charcoal for cooking, lighting and heating (United Nations 1992). This trend of fuel wood consumption during the previous decade would have continued at least at the same level between 1990 and 2000, if it did not increase. The military government's claim fails to include the deforestation caused by rapid expansion of the logging trade, which is not reported (Brunner et al. 1998; *The Irrawaddy* 2001; World Rainforest Movement 2002). New commercial contracts were first offered by the regime in late 1988 to neighbouring Thailand (EIA 2002). Many logging companies do not necessarily comply with the logging standards required by the Myanmar government under the system known as the Burma Selection System (BSS),⁶ which was created during the colonial period to regulate logging.

The current military regime has enacted a number of laws in order to protect and conserve national forests. The 1992 Forest Law recognises the value of forest beyond commercial uses. It emphasises 'conservation and protection' to meet the needs of the public and the 'perpetual enjoyment of benefits' from the forest (Myanmar 1992). Although the technical competence, skills and commitment of the personnel within the Forest Department are high, these laws, in reality, are no more than window-dressing since top-level officials in the military regime and their

cronies are widely believed to be accepting bribes to turn a blind eye to logging companies that often do not comply with the written laws (*Bangkok Post*, 4 January 1998). Therefore, although Burma is not in immediate danger of wiping out its forests in the next few years, current activities, especially intensive logging in eastern and northeastern border areas, are leading to disturbing trends in widespread, and socially destructive, environmental decline. The likely permanent damage to the biodiversity-rich remaining forests is an environmental crisis in the making.

The SPDC's environmental governance

As a policy response and to provide a governance mechanism to address environmental issues, in 1990, the military regime established the NCEA to 'educate the public about environmental awareness'.⁷ The NCEA is also charged with formulating a 'comprehensive national environmental strategy' in keeping with a 'modern and developed nation' (NCEA 1992:3). In 1994, the NCEA adopted the National Environmental Policy, which it claims has two major tasks: institutional development, and carrying out the National Environmental Action Plan (Johnson and Durst 1997; FAO 1997:194). The strategies adopted are to: upgrade the NCEA into a statutory body; restructure the NCEA for policy implementation; and achieve financial autonomy for the NCEA. These three objectives demonstrate that the military regime is aware of the need for institutional mechanisms to address environmental issues. An assessment after a decade of institutional development of the NCEA, however, indicates that these objectives have not been fully realised. The first two have been progressing slowly, however, the NCEA is far from achieving financial autonomy because the SPDC has not set up the commission as a statutory body with the formal independent authority to issue policies and implement them.

Acute environmental issues such as forest degradation, water resources management and the sustainability of agriculture come under the authority of the respective departments and ministries that are

statutorily separate from the NCEA, which was attached to the Ministry of Foreign Affairs.⁸ This arrangement has hindered the development of the NCEA as an implementation body. Therefore, although the language of the NCEA is in tune with the challenges Burma faces in environmental affairs, its current institutional foundations impair its practical effectiveness as a regulatory body.⁹

National environmental action plan

Although the NCEA is charged with drafting a national environmental action plan, it has been moving very slowly. The drafting process of the plan is to focus on: drawing up comprehensive environmental legislation; reviewing and drafting sectoral legislation; conducting environmental impact assessments and establishing environmental standards; collecting environmental data; promoting environmental awareness; alleviating poverty; and setting up sectoral linkages.

The language of the NCEA's draft national environmental action plan demonstrates again that the military regime is aware of the depth and breadth of challenges of national environmental governance. What is happening in reality, however, is different from what is laid down on paper as official policy. In the absence of a national constitution, a national parliament and a legislative body, there is no appropriate institutional mechanism to pass national environmental laws.

Moreover, addressing environmental problems requires input and compliance from different sectors and citizens.

Among all the listed actions in drafting the environmental action plan, promoting environmental awareness has perhaps been the most successful. Achieving some level of environmental awareness among the population could be considered a success, but this success is not meaningful until and unless citizens have material and mental capacities as well as freedom to initiate self-governing community projects and programs that are crucial for successful environmental governance. Governance is in turn closely tied to livelihood issues within the local context.

Since Burma gained independence, the NCEA and its policy framework are the first and only initiatives of their kind designed to

address environmental issues in the country. If one examines the reason behind the establishment of the NCEA and the national environmental action plan, however, it is clear that it was driven by external forces, and not by domestic needs or genuine interest in environmental issues. The establishment of the NCEA and the emergence of a national environmental policy in Burma were driven by global awareness and initiatives taken by the United Nations.

The then chairman of the NCEA, U Ohn Gyaw, who was also Foreign Minister, stated

Burma's commitment and concern for the global and national environment is reflected in the signing of the Framework Convention on Climate Change and the Convention on Biological Diversity at the 1992 United Nations Conference on Environment and Development (UNCED). Environmental protection and conservation occupy a place of special significance on the national agenda of Burma, and Burma's National Commission for Environmental Affairs will continue to strengthen its efforts for preserving and protecting the environment while participating and cooperating in the global effort (U Ohn Gyaw, quoted by Burma Permanent UN Mission Office).

Although Burma has a number of environmental laws and regulations (Table 9.1), it lacks the institutional framework to carry out 'protection and conservation of the environment' so as to achieve sustainable development by implementing these laws, which were not crafted on the basis of sound science or debated democratically to reflect the legitimate livelihood concerns of the population. On top of that, there is no evidence of a political commitment to deal with environmental affairs effectively even under these less than perfect laws. Any careful observer of Burmese affairs would be puzzled by the initial establishment of the NCEA under the Ministry of Foreign Affairs. Why would environmental matters be placed under that ministry—unless it was to showcase a positive image to the outside world. If the regime was serious about tackling environmental matters, it would have established a separate ministry or department and appropriated adequate financial and human resources to tackle environmental matters systematically.

Table 9.1 Current major environmental legislation in Burma

Law and regulation	Year	Purpose
Factory Act	1951	To make effective arrangements in every factory for disposal of waste and effluence, and for matters of health, cleanliness and safety.
Public Health Law	1972	To promote and safeguard public health and to take necessary measures in respect of environmental health.
Territorial Sea and Maritime Zone Law	1977	To define and determine the Maritime Zone, Contiguous Zone, Exclusive Economic Zone and Continental Shelf and the right of the Union of Myanmar to exercise general and exclusive jurisdiction over these zones and the Continental Shelf in respect of preservation and protection of the marine environment, its resources and prevention of marine pollution.
Fishing Rights of Foreign Vessels Law	1989	To conserve fisheries and to enable systematic operation in fisheries with participation of foreign investors.
Marine Fisheries Law	1990	To conserve marine fisheries and to enable systematic operation in marine fisheries.
Forestry Law	1992	To implement forest policy and environmental conservation policy, to promote the sector of public cooperation in implementing these policies, to develop the economy of the State, to prevent destruction of forest and biodiversity, to carry out simultaneously conservation of natural forests

and establishment of forest plantations and to contribute to the fuel requirements of the country.

National Environmental Policy	1994	To establish sound environment policies in the utilisation of water, land, forest, mineral resources and other natural resources in order to conserve the environment and prevent its degradation.
Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law	1994	To protect wildlife, wild plants and conserve natural areas, to contribute towards works of natural scientific research, and to establish zoological gardens and botanical gardens
Myanmar Mines Law	1996	To implement mineral resources policy.
Fertiliser Law	2002	To boost development of the agricultural sector, control fertiliser businesses, and to facilitate conservation of soil and the environment.

Source: United Nations Development Programme, 'The World of Information: Asia and Pacific Review', *The Economic and Business Report*, 1997 Sixteenth Edition. United Nations Development Programme, 1998. *Human Development Report*, United Nations Development Programme, New York.

Another sleight of hand by the regime can be detected in the contents of these major environmental laws, which are broad and do not often have specific standards or regulations to give effect to practical governance of daily environmental issues. Yet the use of separate implementing regulations, or rules, is common practice under the SPDC's rule when it is serious about the implementation of its laws. One should be cognisant of the fact that the creation of the NCEA and announcements about these major laws occurred during the period in which the regime was endeavouring to attract foreign investment and planning to promote tourism in Burma under the slogan 'Visit Myanmar Year 1996'.

Evaluation of the SPDC's environmental governance

Environmental governance in Burma under the SPDC is little more than a façade to present a favourable image on the international stage to encourage tourism and to attract foreign investment. It is one of the usual window-dressing tactics that the military regime has over time mastered for public relations purposes. If the regime was serious and sincere in addressing environmental issues, it would first need to address the fundamental problems of local people's livelihoods and freedom of entrepreneurial activity. Pressing environmental issues include public health, sanitation, clean drinking water, soil erosion, agricultural technological development, assessing the impact of importing foreign seeds (Phyu 2006) and proper designs for irrigation projects. To address these issues effectively at the national level, the regime has to appropriate funds and establish an independent body to coordinate (not consolidate) activities among different ministries, ensure citizens' active participation, ensure information about development projects is shared and conduct environmental and social impact assessments by commissioning independent scientists and experts from local communities. Since none of these are practised in the SPDC's Myanmar, trying to measure the state of environmental governance by using the normal standards in project implementation and impact assessments is like 'shooting a sparrow with a rocket launcher', as the Burmese saying goes.

Most important of all, the freedom of local farmers and communities to make sound judgments and decisions about their livelihood issues, which are directly associated with utilisation of natural resources, has to be honored. This is unlikely to happen, however, in the current mindset of the SPDC, which is intolerant of new ideas at the community level and short of vision for meaningful development of the country or for improving the well-being of the people. The SPDC is entirely preoccupied with restricting political action by the people; it even restricts the basic freedom of farmers to cultivate whatever crops they desire on their land. Therefore, if the SPDC is sincere about addressing environmental governance in Burma, it should at least guarantee freedom for farmers and the local population to pursue their livelihoods and entrepreneurial activities as they choose.

Continuing political crisis and environmental issues

Any study of the issues relating to Burma must pay attention to what is happening on the political stage and its history. Political instability and the fragile state of governance are the crucial problems that have contributed to Burma becoming one of the less developed countries among UN members. Indeed, Burma is perhaps one of the strongest examples of how lack of political development has hindered economic and social progress. No period in post-independent Burma's history has witnessed such impediments to the country's potential social and economic progress as the present time, with its continuing political crisis.

Because of the absence of good governance and appropriate institutional mechanisms to provide checks and balances in the exploitation of natural resources, Burma is beginning to encounter experiences similar to countries that pursue material development ahead of sustainable and equitable social development. It will soon follow the trends of other societies in mainland Southeast Asia, such as Thailand, where original natural forests in lowland areas have been turned into rice paddies, fruit orchards, infrastructure developments and golf courses, and where forest animals are traded in tourist-crowded local markets.

Table 9.2 International environmental conventions ratified or signed by Burma

International environmental conventions	Year in force
Plant Protection Agreement for the Southeast Asia and Pacific Region	1959
Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water	1963
Outer Space Treaty: Treaty on Principles Governing the Activities of States in the Exploitation and Use of Outer Space including the Moon and other Celestial Bodies	1970
Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological and Toxic Weapons, and their Destruction	1972 (signed)
MARPOL: International Convention for the Prevention of Pollution from Ships 1973	1988
MARPOL Protocol: Protocol of 1978	1988
Relating to the International Convention for the Prevention of Pollution from Ships 1978	
Agreement on the Networks of Aquaculture Centres in Asia and the Pacific Region 1988	1990
Treaty on the Non-Proliferation of Nuclear Weapons	1992
ICAO: ANNEX 16 to the Convention on International Civil Aviation Environmental Protection Vol.I, Aircraft Noise	1992
ICAO: ANNEX 16 to the Convention on International	

Civil Aviation Environmental Protection Vol.II, Aircraft Noise	1992
Vienna Convention for the Protection of the Ozone Layer	1994
Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol)	1994
London Amendment to the Montreal Protocol	1994
Convention on the Prohibition of the Development, Production and Stockpiling and Use of Chemical Weapons, and their Destruction	1994
Convention Concerning the Protection of the World's Cultural and Natural Heritage	1994
Framework Convention on Climate Change (FCCC)	1995
Convention on Biological Diversity (CBD)	1995
United Nations Convention on the Law of the Sea	1996
International Tropical Timber Agreement (ITTA)	1997
United Nations Convention to Combat Desertification	1997
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	1997

Source: Author's compilation

Local rights in national development

One of the fundamental challenges Burma must address, if sustainable development is to be achieved, is the issue of local people's rights and political freedom to manage the natural resources on which their livelihoods are based. When the globalisation of economic activities intensifies pressure on a country such as Burma—where there is no solid foundation of rule of law—the most vulnerable victims are the local people and the natural environment. Within this context, communities and landscapes under the greatest environmental threat today are generally those inhabited by the most vulnerable members of society, including the poor, ethnic minority groups, women, children, refugees and other internally displaced people. Indeed, the lives and living conditions of rural populations along Burma's borders and within the country are examples of this phenomenon.

The continuing political instability in Burma and political corruption in the regional context of the Mekong region and Southeast Asia have provided havens for human rights abuses and often-neglected social problems, which in turn continue to haunt environmental arenas in these countries. Burma's political instability does not contribute to the long-term development of good governance in the Mekong region.

Burma in the context of international environmental governance

What positive steps can be taken from the SPDC's show of environmental governance? The statement by U Ohn Gyaw and careful assessment of the SPDC's policy for the NCEA signal that the military regime often responds to external factors and forces in its own way. After understanding what internal and external factors SPDC take into account in responding to both domestic and international pressures, strategists then can use SPDC's responses as baseline pressure points to build up further factors or standards to which the SPDC will have to make further responses. For instance, when a country signs international treaties and laws (see Table 9.2), signatory states are supposed to be accountable to report on the implementation of treaty clauses and

legal frameworks they have set up. Accountability mechanisms can be achieved by applying legal and policy-program means. One of the most successful examples of how the international community deals with the SPDC's responses to external forces is the work of the International Labour Organization (ILO) on forced-labour issues. Perhaps this model can be used to address environmental issues while developing environmental governance.

For example, Burma has signed a number of the international environmental conventions: it has signed, and acceded to, or ratified the Convention on Biological Diversity (1994), the Convention on International Trade of Endangered Species (1979), the International Tropical Timber Agreement (1996) and the Framework Convention on Climate Change (1994) (Table 9.2). It has also participated in the UN Conference on Environment and Development, and received funds through the Global Environment Facility. Burma's path is leading towards increased international engagement in environmental arenas. This engagement can open up channels of communication to discuss environmental issues with the military government. The regime has shown, through its limited environmental initiatives, a 'greening' in some of its policies. Although it can be argued that, ultimately, the regime's policies are merely lip service, the regime has at least demonstrated some level of awareness of environmental issues in Burma.

Moreover, in 1997, Burma became a member of the Association of Southeast Asian Nations (ASEAN), which is leaning increasingly towards regional cooperation in dealing with environmental problems. For example, in September 1997, ASEAN members signed the Jakarta Declaration on Environment and Development and pledged to use resources efficiently and sustainably. As a result, ASEAN set up the ASEAN Regional Centre for Biodiversity Conservation with the aim of supporting and empowering communities to achieve their eco-efficiency objectives. The Mekong River Commission (MRC), with its pre-eminent role in the Mekong region and expanding work program, is another transnational institutional mechanism that can work with

the current regime in Burma to establish much needed baseline data and information about the true state of the environment in Burma. Using the SPDC's desire to gain international recognition, the MRC should approach Burma to become a fully fledged member. ASEAN, the MRC and the international environmental treaties that the military regime has signed are all potential institutional mechanisms that can be applied to engage with the regime. Such engagement can at least be aimed at information sharing and dissemination about the current state of environmental affairs in Burma, perhaps leading to training relevant officials for environmental assessment.

Limited opportunities for environmental governance

If proper policies can be crafted and implemented in Burma—ideally within a democratic system of governance—the rich cultural and ethnic diversity along with the natural environmental endowment can be great resources for development of the country. The history of Burma's parliamentary democracy period provides ample empirical evidence that if Burmese people have a certain level of political freedom and stability, they can put the country back on the path to development. Because some level of democratic governance existed from 1948 to 1960, Burma in the 1950s was one of the most promising and respected countries in the region, even though this was the early days of its independence. What was crucial then was a level of political freedom for governmental agencies and citizens to implement innovative ideas in their daily livelihoods without unjust restrictions from an authoritarian government. Can environmental issues be applied to create political space for self-governance and more freedom for local populations, and in turn contribute to political transition as a whole? This question should be a guiding one that feeds into the continuing approaches taken by local and international environmental NGOs on environmental issues and governance in the current political crisis in Burma. This is fundamental for environmental governance, which depends ultimately on the inputs of the local population.

Cases of limited environmental success

Although this chapter emphasises a bleak view of the current political context and governance structures, it also acknowledges that some limited opportunities exist in Burma for environmental governance. Some of the existing mechanisms that show a level of success and are appropriately addressing the importance of environmental issues in Burma are discussed below.

Smithsonian Institution

The Smithsonian Institution has been working with the Forest Department in Chatthin Wildlife Sanctuary (CWS) since 1992 after selecting the sanctuary as a site for a multi-year ecological study (Aung et al. 2004). The goal of this project is to build local capacity in order to secure the future of the ecosystem. This goal is accomplished through training the sanctuary staff, conducting ecological research and fostering community-based conservation. From 1992 to 2000, training sessions on birds, mammals, herpetology and entomology inventories, community relations and environmental education were offered. The strength and prospects of this project, however, rely on the good grace of the Forest Department. A simple change of leadership in wildlife sanctuary superintendent could risk the future of the project and it could be unnecessarily delayed. There is a lack of institutional structures to support such a project for the long term, even though it could survive in the short term through management of ‘personal diplomacy’. The Myanmar government sees these projects as window-dressing opportunities to improve its international reputation and gain much desired legitimacy—from ‘less political’ issues, such as the environment.

It would be wise to assume, however, that the military government does not want this type of project to expand too deeply into other wildlife sanctuaries or environmental concerns. The perceived reason is that these externally run projects risk giving the impression that the government is incapable of organising and managing such projects

without outside intervention. The regime is constantly claiming that it is protecting Burma's sovereignty and independence from outside influences. Therefore, even though a project like this can be initiated and survive to a degree under the leadership of the relevant ministry, such projects face an uncertain future until a proper political settlement is achieved. Nevertheless, if these projects continue to operate within the workable framework at present, they will contribute enormously to environmental governance once the country becomes an open and democratic society.

Wildlife Conservation Society

Rao et al. (2002) reported on the Wildlife Conservation Society's (WCS) remarkable efforts on assessing 22 of the 31 official protected areas in Burma. Such a scientific assessment of the state of the environment in Burma is needed but can rarely be undertaken. The WCS, however, with the assistance of Forest Department personnel, was able to undertake this important assessment of protected areas and produce empirically grounded strategies to help strengthen current conservation efforts. Meanwhile, the WCS also worked closely with the Forest Department in the creation of the new 3,812 square kilometre Khakaborazi National Park.

The WCS-led study found that grazing, hunting, fuel wood collection and permanent settlements occurred in more than 50 per cent of the protected areas surveyed, with biodiversity loss most severe in older protected areas and less severe in the newly created national parks, such as Khakaborazi (Rao et al. 2002:364). The study issued eight recommendations including building the technical capacity of protected areas staff, involving local communities in protected area management, implementing a comprehensive land-use plan, controlling hunting and amending wildlife laws to fulfill international treaty obligations. This type of assessment could be adapted to other areas of environmental concern, such as the management of forests, rivers, lakes and wetlands.

United Nations Development Programme Watershed Project Initiatives

The United Nations Development Programme (UNDP) has been engaged in at least three continuing projects as a part of its Human Development Initiative. These projects are located in the Dry Zone, the Ayeyarwaddy Delta and in Southern Shan State. They aim to promote environmentally sustainable practices, food security and micro-income opportunities. One of the success stories of the UNDP project is in Southern Shan State, where deforestation, shifting cultivation, poverty, over-grazing and forest fires are constant problems. The Southern Shan State project relies heavily on community forestry initiatives to enable communities to regain control of their forests, feel a sense of ownership and promote true responsibility in taking care of the forest. Since the project's inception in 1994, 764 acres have been accepted as community forest and another 1,335 acres have been reported as pending acceptance. Although the number of acres under community forests is small, the UNDP project has identified a total of 306,516 acres as potential community forests (Sterk 1999).

The UNDP has wider political acceptance and legitimacy in the eyes of the government and people in Burma. At the same time, the status and image of the United Nations and its agencies are relatively sensitive and more open to criticism by the international community, NGOs and the Myanmar opposition, some of whom advocate isolating the military regime. Therefore, the dilemma of aid from UN agencies is more intimately tied to the political context of Burma than those of independent international agencies, such as the Smithsonian Institution and the WCS, which could choose to aid Burma regardless of criticism.

One has to be mindful of the fact that although these opportunities exist and they can be used to initiate environmental governance in Burma, it is difficult to predict the potential outcomes and whether these projects can sustain the momentum for the long term. If these projects—aimed indirectly at contributing to political transition by creating political space for the local population and disseminating information

about livelihood conditions and the environment—continue, they will make positive contributions to environmental governance in Burma. But as long as the regime refuses to commit to a transition to democracy supported by the Burmese people and the international community, these projects face an uncertain future.

Challenges and strategies for environmental governance

The initial challenges for environmental governance in the SPDC's Myanmar are rooted in three dimensions: institutional development; budget or resource capacity; and knowledge or environmental education (capacity building). Institutional development for environmental governance is hindered by many factors, including the lack of political will and the continuing political crisis. Resource capacity and budget funding for environmental governance are at the bottom of the list of the military regime's priorities. There is no official report from the regime as to how much of the annual budget is appropriated for environmental governance, such as for building infrastructure or monitoring and enforcing environmental laws and training staff. According to the WCS's survey report, '[N]one of the protected areas surveyed had the necessary infrastructure for effective reserve management or sufficient on-site personnel to perform park management activities adequately' (Rao et al. 2002:364). Environmental education of the general populace and among staff at the relevant ministries is another challenge for environmental governance. For instance, Rao et al. (2002:363) reported that only 35 per cent of the national parks surveyed had approximately half of their staff trained in basic field techniques. If one of the most active areas of environmental governance—national park or protected area management—has such a small number of staff trained systematically, one can imagine the low level of environmental management education in other areas. Therefore, the first challenge for environmental governance in Burma is to understand the depth and breadth of the challenges that lie in these three dimensions.

Strategies

In a broader sense of promoting good governance at the national level, one possibility is for the international community to put pressure on the regime to adhere to the rule of law and to provide a future scenario for Burma's environmental governance. As Burma has signed a number of important international environmental conventions, these can be used to monitor its environmental affairs. At the same time, these conventions provide mechanisms for international environmental organisations to engage with the military regime and test its willingness to abide by international standards. International environmental NGOs and UN agencies can also engage in *ad hoc* training in environmental law related to the conventions to which Burma is a party. This approach can be initiated with projects to train relevant government officials to understand these international laws and treaties. Such an approach might be carried out by a credible international NGO that has the capacity and a genuine interest in Burma's environmental future.

Another channel for launching this type of approach might be some mechanism under ASEAN or the MRC, both of which could provide training courses on international environmental laws for relevant government officials. For instance, training government officers in the Forest Department about international standards for protected area classification, field techniques, survey methods and environmental education in general could lead to the creation of more protected areas in Burma. After testing the regime's seriousness to adhere to international environmental conventions, specific strategies that are in line with the 1994 National Environmental Policy could be applied to support the institutional development of the NCEA.

First, institutional development of the NCEA to become a separate statutory body for environmental policy and governance might be accelerated by partnership with an international organisation such as the UNDP, the UN Environment Program (UNEP), the Global Environmental Facility or an international donor agency acceptable to the regime. A potential international funding organisation or agency

might approach the regime by offering a loan or aid with an agreement to establish a ministry or department of the environment. The agreement should clearly outline workable mechanisms and functional autonomy for the ministry or department to implement domestic and international environmental laws and policies. Ideally, a UN environment-related agency should take up such an initiative, because the military government's trust in such an agency is likely to be much higher than in a country-based international environmental NGO. It is to be expected, however, that Burmese opposition forces would criticise such a project. If such a project were able to adopt a political approach, the agreement should clearly state that the monitoring board for the institutional development of the NCEA must be composed of representatives from the regime, funding agencies and the democratic opposition led by Aung San Suu Kyi. Such an approach would avoid unwanted criticism from the opposition. Perhaps, such a partnership project could contribute to UN-initiated dialogue between the regime and the opposition.

Second, applying Conservation International's Guyana model of 'conservation concession' would generate the potential to increase more conservation areas in Burma. It is reported that only 2.26 per cent of the total area of the country is designated as protected areas (Rao et al. 2002:361). Conservation International obtained the first conservation concession in 2000 from Guyana, a small former British colony on the north coast of South America. A concession is a lease on a parcel of land granted by a government for a specific purpose. In the Guyana case, Conservation International leased a 200,000-acre tract in the remote southeastern corner of the country for an application fee of US\$20,000 and 15 cents per acre annually. Conservation International then put up additional funds for management of the tract as a nature reserve. The initial period was for three years during which both parties would negotiate the rate for a subsequent 25 years (Wilson 2002). This model can be applied to increase conservation areas in Burma, however, this requires strategic selection of biodiversity-relevant sites of global importance within Burma and an assurance of enforcement mechanisms from the military regime.

Finally, to prevent the illegal trade of wildlife and timber in border areas, there is a need for trans-border cooperation between Burma and neighbouring countries—because wildlife protection and deforestation in Burma are driven largely by international and cross-border demands. Trans-border measures should be promoted, especially among Burma, China and Thailand. The emergence of such measures will depend on the political commitment of neighbouring countries. First, it will require an appropriate platform to address the issue. One place to start would be through the Greater Mekong Subregion (GMS) development scheme supported by the Asian Development Bank (ADB). If ADB funding for the development of roads and energy networks in the GMS imposed trans-border environmental conditions, it could succeed in at least the establishment of an official trans-border environmental coordination committee. Another model of trans-border cooperation is the Haze Technical Task Force set up by ASEAN to solve subregional issues. Although the Haze task force was not successful because it lacked an operational agenda, it at least provides a model to start dialogue on subregional trans-border issues, such as wildlife and illegal timber trading.

Conclusion

With its continuing political instability, war and repression, Burma stands to lose much of its remaining natural resources at an alarming rate. The military regime's protection and conservation of natural resources and the environment as a 'national endeavour' has been couched in progressive language. The drafting and implementation of its National Environmental Policy is, however, yet to produce appropriate institutional mechanisms. Any strategic environmental engagement with the military regime will have to bear in mind that a fruitful result for sustainable environmental governance in Burma, and consequently in the ASEAN and Mekong regions, will depend on the existence of good governance practice in a broader sense. Transparency, accountability, rule of law, an independent judiciary system and mechanisms to include local participation in environmental decision

making are essential for good governance practices. Burma lacks most of these elements, although there are some limited possibilities for local participation, as can be seen from the success of the UNDP's projects. Therefore, until and unless national reconciliation is reached and political differences are resolved among all concerned parties, Burma's environmental future will be held hostage by political instability. It is desirable that the short-term successes of the projects discussed in this chapter lead to the rescuing of the hostage.

It is crucial that the leaders of the SPDC regime realise that the existence of human civilisation depends inevitably on the harmonious relationship between society and the environment. The common finding of scientists who study the reasons behind the survival and collapse of earlier civilisations is that those civilisations collapsed due to a lack of vision and a lack of institutional arrangements to achieve a balanced relationship between society and the environment (Hodell et al. 1995; Weiss and Bradley 2001; Haug et al. 2003). The great lesson that the SPDC generals can learn from the collapse of states in the past is that the meaningful development of a society and the continuing existence of a civilisation depend on human ideas, capacities and political freedom within that society. Burmese society is endowed with ideas and capacities; what is lacking is political freedom for citizens to exercise their ideas and capacities. If current political deadlocks continue to deny citizens the political freedom to chart their own livelihoods and self-governance into the future, Burma's civilisation and its continued existence in the modern context will be at risk. This assessment of environmental governance under the SPDC would have to conclude that the primary responsibility for charting better environmental governance in Burma lies in the hands of the SPDC generals.

Notes

- 1 The SPDC uses this term in its propaganda campaign against the opposition.
- 2 Then Lieutenant-General Khin Nyunt, Secretary One of the SPDC, stated on 15 May 1991 in an interview that martial law meant 'no law at all'. See Amnesty International 1992.

- 3 Élitist Burmese are those who have access to and cozy relationships with military leaders although they cannot be considered as SPDC regime elements.
- 4 See Mirante 2002. For logging, see Brunner et al. 1998. See also *The Irrawaddy* 2001 and World Rainforest Movement 2002.
- 5 see http://www.energy.gov.mm/MOF_1.htm
- 6 The Burma Selection System requires recording the age of trees. It involves a 30-year felling cycle based on minimum size selection criteria. See <http://www/Burma.com/gov/perspec/>
- 7 Major General Khin Nyunt, then Secretary One of the State Law and Order Restoration Council (SLORC) and head of Military Intelligence, 14 May 1991, quoted in *The Working People's Daily*, 16 May 1991.
- 8 Fifteen years after the creation of the NCEA, the SPDC in 2006 removed the NCEA from the Ministry of Foreign Affairs to the Forestry Ministry.
- 9 It is unlikely that the NCEA can become a statutory body under the SPDC without a proper constitution and legislature.

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