Overview of International & National Frameworks for Land Policy

Three

Top Soil erosion on upper reaches and crops on fields - Yunnan, China
Cai Yunlong

Bottom Children at play on abandoned terraces of pine trees - Northern Pakistan
Vaqur Zakaria

Chapter Three

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Introduction

This study differentiates between land policy and environmental policy. There are some aspects of land policy that may have environmental implications but are usually not considered to be part of environmental policy (although many should be), e.g., land titling, property relations, and land-revenue issues. There are also environmental policy issues that are not directly linked to land (e.g., energy policy, pricing policy for timber and other natural resources, and others), and these have not been included within our brief. However, land policy in all countries of the region is situated within more general environmental policies and forms a central part of the latter. In all countries, too, national environmental strategies or action plans are in various stages of formulation and implementation. Therefore, we first address these more general aspects that form a national framework in which land policy is made and implemented. There follows a summary discussion of all the national environmental strategies and overall planning frameworks of Bangladesh, Bhutan, China (with particular reference to Yunnan Province), India, Nepal, and Pakistan, followed by a discussion of environmental policy in all countries of the region.

National frameworks for environmental policy existed in a number of countries in the region before the late 1980s when an international agenda started to emerge following the World Commission on Environment and Development (1987) and UNCED (1992). Much of the groundwork for national environmental strategies had already been laid in some countries by such institutions as the land boards in India, national, provincial and local laws on environmental issues in China, and the Environment and Urban Division in Pakistan. As may be expected, different national political and administrative cultures in these countries had resulted in quite diverse frameworks for the management of land. However, after the early 1990s, an international agenda for environmental management gathered momentum, and national environmental strategies and action plans were

introduced. The story thereafter, in each country, is one of how in different ways each country reacted to these new international initiatives. For some, it was business as usual, perhaps with some re-labelling of ongoing policies. For others, new administrative structures were formed to coordinate and implement these plans and strategies. For yet others, new projects and programmes were introduced on the ground quite rapidly. There was also much foot-dragging and, in some cases, covert political resistance to particular policies (e.g., the more participatory policies of forest management) that were seen to run counter to established bureaucratic and professional norms. In short, political agendas of all sorts, e.g., at the national level, within government administrations, and of different resource users, engaged with the international model of environmental policy. This model, as will be shown in the following discussion, is one of ecological modernisation. Briefly, it is systemic, integrated, and rational. It assumes that environmental costs can be measured and treated by a structure of market-driven incentives and regulations. It implies, amongst other requirements, an effective system for the collection and monitoring of environmental information, clear legal instruments for pollution control, and property rights for land use, and an impartial and effective implementation on the part of the state. The model, as expressed in most of the national environmental strategies and action plans, is heterodox in style and pays considerable attention to participatory and equity issues and citizen participation. The central point is that institutions that manage the environment should be accountable and rational. The following subsections summarise the experience of national frameworks and the impact of the new international agenda at the national level and, in subsequent chapters, at lower levels.

Bangladesh

The only region of the country that is within the terms of reference of this study is the Chittagong Hill Tracts. This area has had such problematic relations with the rest of the country that any discussion of national environmental policy must be preceded with a brief outline of these problems. The Chittagong Hill Tracts' region has been in political turmoil throughout the last two and a half decades. There are issues still unresolved despite the treaty signed by the Bangladesh Government and the Parbattya Chattagram Jana Sanghati Sangstha (PCJSS), the organisation that has earned the recognition to speak for the hill people. Indeed, implementation of the treaty introduced fresh tension into the peace process. Before we go deeper into the environmental policy disaster in the Chittagong Hill Tracts, a familiarity with the characteristics of the region and its particular history, which is distinctly different from other regions of the Hindu Kush–Himalayas, will be helpful.

The Chittagong Hill Tracts are politically in a transitional phase. Since the late 1950s and early 1960s, the demography and land-use history of the Chittagong Hill Tracts' have been influenced by the effects of the Karnaphuli hydroelectric power plant. While its construction could well be justified on the grounds of overwhelming national need, the failure to foresee and solve the profound socio-environmental impacts upon local people has led to a policy disaster of the highest order. The resentment generated by the dam led to a fresh search for identity of the hill people within the framework of the then East Pakistan. The Kaptai Dam not only displaced huge numbers of hill people from the best quality irrigated lands, it also affected the land-use pattern of others upslope from the flooded areas.

From the early 1970s, the grievances of the hill people of the Chittagong Hill Tracts surfaced vigorously and the outcome was a prolonged armed conflict with the Bangladesh State. During the period of armed conflict, state policies were driven by principles of state security, resulting in all kinds of distortions in most policy areas, and particularly in environmental policy. Frequent displacement and resettlement of the hill and plains' people, strategic terrain preparation and development requirements were the most important policy processes unleashed in the Chittagong Hill Tracts. All these have had deep impacts on land use, land-management practices, and, allegedly, land degradation. Furthermore, most land policies in the region have an internal colonial logic, characterised by appropriation by the state of resources necessary for the livelihoods of local people and criminalisation of displaced people by the hydroelectric project.

The other important exception one needs to take into account is the special character of the Chittagong Hill Tracts with their distinct duality in many respects *vis-à-vis* the main land. The region has both hills and plains with forest and agricultural lands, inhabited almost equally by recently settled plainsmen and the original hill people. They speak different languages, practice both plough and swidden ('jhum') cultivation for horticulture and agriculture. However, the most important element that has distinguished the Chittagong Hill Tracts from the rest of the country is the Manual of 1900, which was still the instrument of administration until 1989 and was effective until May 1998. What it actually means for policy processes in the Chittagong Hill Tracts is special status for the region in the constitutional framework of the country. It also means most national policies do not have any relevance for the Chittagong Hill Tracts, in terms of both enactment and participation in the policy-making processes.

Following the peace treaty in 1998, a quasi-separate status was accorded for the Chittagong Hill Tracts, leading to the suspension of the armed conflict of

the last 22 years. Optimists among the hill people feel that they will be able to have more control over environmental policy-making processes.

A National Environment Policy (NEMAP) was launched in 1992 and had the following objectives.

- Sustenance of the ecological balance and overall progress of the country through protection and improvement of the environment
- Protection of the country against natural disasters
- Identification and control of activities that pollute and degrade the environment
- Environmentally sound development in all sectors
- Sustainable, long-term and environmentally sound use of all resources
- Active association with environment-related international initiatives to the extent possible

The NEMAP embodies environmental policies for 15 sectors: agriculture; industry; health and sanitation; energy and fuel; water development, flood control and irrigation; land; forest, wildlife, and biodiversity; fisheries and livestock; food; coastal and marine environment; transport and communications; housing and urbanisation; population; education and public awareness; and science, technology and research.

For the purpose of management, implementation, funding and coordination, the NEMAP identified the following main issues.

- Institutional issues: intersectoral coordination, ensuring people's participation, monitoring of NEMAP, legislation and methodology of people's participation
- Sectoral issues: health and sanitation, forest, biodiversity, natural hazards, education and awareness, industry, water, agriculture, energy, fisheries, land, housing, transport
- Local issues: salinity and shrimp, coastal marine issues, Barind Tract, wetlands, hill-cutting, Madhupur Tract
- Long-term issues: regional water-sharing, urbanisation, climate change, research and development

Since the present study focuses on land policy and land management, only land resources. forestry, and biodiversity are highlighted here. Virtually all available land is utilised for agriculture, forestry, fishing, settlements, and urban development. It is felt that land-use priorities have to strike a balance

between the competing needs of these sectors. Major land-use conflict arises from uncoordinated action amongst the ministries and agencies concerned with land management. Yet, little attention has been paid to formulating a national land-use policy to conserve and make optimum use of this scarce natural resource. Gradual loss of agricultural land, loss of soil fertility, soil degradation, landlessness, distribution of 'khas' land, and the cumbersome land registration system are the major issues that have been addressed by the NEMAP and a number of specific actions has been proposed in this regard (Table 3.1).

It can be seen that the NEMAP has all the hallmarks of the ecological-modernisation project of international donors. The problem arises of complete non-implementation in the Chittagong Hill Tracts for political and, until recently, military reasons. As this report will show, many of the environmental policies prior to the NEMAP, as applied to the Chittagong Hill Tracts, were highly discriminatory against hill people. They repeatedly abrogated environmental entitlements and were punitive in both cultural and economic terms. The NEMAP acknowledges, at various points, the issues of landlessness and poverty. It, nevertheless, remains a paper exercise until new, devolved and accountable policy processes can be developed. This, as every involved politician and activist in the Chittagong Hill Tracts will tell you, is a far from easy task.

Bhutan

In comparison with all other countries in the region except China, Bhutan initiated a national framework for environmental policy only quite recently. The National Environment Strategy was developed in 1997. The strategy was formulated over a period of three years and was based on a series of consultations, technical meetings, regional workshops and, finally, a national workshop. The National Environment Secretariat coordinated the formulation of the strategy. Thus, the strategy was the outcome of national, rather than international, initiatives, and the Royal Government of Bhutan managed to exercise considerable political and practical independence over its formulation. The two international events that triggered the formulation of the strategy were the Brundland Report (1987) and the Rio Declaration (1992). However, it should be noted that the strategy is prepared by and for the Royal Government of Bhutan. Its contents and intentions reflect the true Bhutanese philosophy of spiritual and material development while respecting the concerns for conservation of the environment. Much of it retains a distinctive cultural style, although the detail and operationalisation can be expected to be similar to environmental policies elsewhere.

Table 3.1: **Key issues and specific actions suggested in the NEMAP for land resources**

Key issues	Recommended actions	Types of action	Actors/agencies	Specific actions
Unsustainable land use	Development of sustainable land-use management	Policy	MoLand, agricultural research organisations, universities, community organisations/NGOs	Action research/farm research
	Study of indigenous sustainable land-use practices	Project	Research organisations, community organisations/NGOs, people	Study to increase efficiency of the production system and its application
Loss of soil fertility	Soil fertility status survey and classification of soil according to fertility; appropriate care for soil nutrient deficiencies	Project	SRDI, research organisations, universities	Survey projects on soil fertility conservation and mapping
Management of degraded land	Inventory of degraded land, its mapping and recommendation for appropriate use	Project	SRDI, SPARRSO, research organisations	Survey and mapping
Status of land resource: inventory, classification and legal status	National land-use survey in collaboration with research institutions and private sector	Project	Directorate, DLR, research organisations, private sector	Land-use survey, land classification on the basis of physical uses and legal status, and formulation of recommendation for subsequent replication

Table 3.1: **Key issues and specific actions suggested in the NEMAP for land resources (cont'd)**

Key issues	Recommended actions	Types of action	Actors/agencies	Specific actions
Age-old land registration and records of land right system	Modernisation of land registration and land right recording system with the help of computer assistance such as GIS	Policy/ Project	DLR, MoLand, research organisations	Pilot study and formulation of recommendation for subsequent replication
Absence of land policy providing for land-use planning and addressing the policy, and land reform/ land fragmentation/ land tenure/ landlessness/ land settlement such as distribution of khas lands	Formulation of comprehensive land policy	Policy	MoLand	Formulation of land-use plan; land reforms incorporating agrarian and tenure structure; programmes for giving *khas* lands for settlements to the poor and encouraging environmentally sound and sustainable land-use patterns
Soil conservation issues	Soil conservation measures in areas with high soil erosion	Project	DoF, CHTDB, community organisations/NGOs, people	Pilot project to develop appropriate agroforestry practices, plantation and land-use practices for the conservation of soil with active participation of local people

Source: NEMAP 1995

Notes: CHTDB: Chittagong Hill Tracts Development Board; DLR: Directorate of Land Records; DoF: Department of Fisheries; MoLand: Ministry of Land; SRDI: Soil Resource Development Institute; SPARRSO: Space Research and Remote Sensing Organisation.

The environmental policy-making body at the national level is the National Environment Commission. The members of the commission are the heads of the ministries. The National Environment Secretariat seeks policy guidance and approval of its work plan from the commission. Within the country, the process of formulation of the strategy was initiated mainly because of the following concerns.

- The current population growth rate of 3.1% per annum will double the population by 2015. The pressure on limited land resources and the fragile ecosystem will increase significantly.
- At present, development programmes that are uncoordinated and have diverse and unconsidered environmental ramifications. There are many isolated projects wasting resources from duplication of activities. A holistic approach is necessary, not only to avoid duplication, but also to prevent abuse of the resource base for future generations.
- The government's aim is to provide improved living conditions for the rural community on sustained resources. The local community and district administrations were consulted and involved deeply in the process of formulating the strategy.

The strategy aims 'to raise the material well being of our citizens and to meet their spiritual aspirations without impoverishing our children and grandchildren. The key is to find a development path that will allow the country to meet the pressing needs of the people, particularly in terms of food, health care, and education, without undermining the resource base of the economy. New industries, new agricultural markets, and new forestry products need to be carefully developed with respect to their broader environmental ramifications.'

In the Bhutanese context, it is clear that development per se cannot be isolated from respecting and promoting what the government claims its people stand for: their beliefs, culture, and values. Material achievement intertwined with the promotion of Bhutanese systems and values contributes to sustainable development.

The strategy defines hydropower development, self-sufficiency in food production, and industrial development as the three avenues of sustainable national development. It then identifies the following five, key cross-sectoral issues that are essential to the successful integration of environmental concerns while pursuing national development.

- The need for information systems on land ownership and use, demographics, social and cultural trends, and local institutions

- The need to develop local institutions that facilitate popular participation
- The need for environmental legislation based on environmental quality standards
- The need for training and education in natural-resource management
- The need for effective monitoring mechanisms including environmental indicators and effective enforcement procedures

The strategy was formulated only in 1997 but some sectoral strategies had been already implemented, including the following.

- Environment Impact Assessment Guidelines for Bhutan were drafted by the National Environment Secretariat in 1992.
- Preparation for the National Environment Protection Act was under way before the initiation of the strategy.
- Implementation of an environmental sector programme under long-term development collaboration with the Danish government. All environment-related programmes are being coordinated and implemented under this programme.

The National Environment Secretariat is working on the operational aspects of the strategy so that the necessary legal framework will be in place by the end of the Eighth Five-Year Plan.

Turning now to the implementation of the strategy, it is, of course, too early to look for any substantial evidence other than those processes that predated the strategy and that could be incorporated into it as ongoing policy. The following areas are, therefore, a matter of intention at this stage rather than substantive progress.

- The required legal framework for effective management of natural resources and the environment should be in place. The framework should be developed and agreed upon by all stakeholders concerned.
- The national capability to coordinate the implementation of the strategy in particular and the management of the environment in general has to be strengthened.
- There will be a requirement for fiscal incentives to encourage the public and private sectors to develop economically without unnecessarily compromising the natural resource base.
- The education and extension campaign should be conducted continuously to create mass awareness for the sustainable management of natural resources. This will require concerted efforts from both public and private organisations.

In summary, Bhutan's environmental strategy, in spite of a markedly independent authorship, does bear a strong resemblance to other national environmental strategies in the region, namely an integrated approach based on updated environmental data, coordinated action between government departments and civil society, and careful attention being paid to the tendency for a proliferation of foreign-funded projects with disparate agendas. However, it does not have to engage with well-developed and entrenched professional and administrative practices that characterise environmental policy elsewhere, particularly in India and Pakistan.

China

China has a long history of national environmental policy marked by many abrupt reversals that have been brought about by swift changes in political strategy. Many policies, caught up in these profound alterations, are overwritten and forgotten. It is perhaps worth making a fundamental distinction between China's environmental policy over the past 50 years and those of all other countries in the region. This distinction is that China has had the ability to mobilise, even galvanise, its people to transform their social and natural environment rapidly in the most profound ways, and this is simply not comparable with any other country. An illustrative example, which was witnessed by the authors of this report and the members of the country team, is worth recounting here.

We had assembled at a vantage point overlooking a hillside in Luquan County, Yunnan Province, along with a number of local officials and farmers. With the help of local people, the landscape could easily be read as a policy text in a way that only in certain instances was possible elsewhere in the Hindu Kush–Himalayan region. For example, the visual evidence of complete and rapid deforestation during the Great Leap Forward was obvious, as was its immediate impact of the collapsing of many landslides upon a two-kilometre irrigation canal that had been constructed across the hillside at approximately the same time. The canal had been overwhelmed, and the water supply had dried up almost immediately after its construction. Further upslope, evidence of earlier shifting cultivation was evident, where trees and secondary brush had failed to re-colonise after this type of cultivation was banned. There followed a period of re-afforestation, but the forest was largely cleared again at the time of the Cultural Revolution. In the valley floor, a small earthen dam had been constructed so that downstream paddy fields could be irrigated. Today, the reservoir is entirely filled with over four metres of silt and has been converted into non-irrigated paddy fields. Current evidence of new cultivation on steep slopes, particularly of tobacco, is clear. Most of this is illegal and reflects the powerful and over-riding priorities to meet cash requirements imposed by

the responsibility system for economic units in the country. Also, local discretion has been used informally to grant poor and desperate people the right to cultivate steep slopes; otherwise, they might starve. Here is a prime example of the environmental footprint of land policy as discussed in Chapter 2.

This example illustrates a simple but significant principle about land policy in the Hindu Kush-Himalayan region. It is that national politics, style, and management culture are profoundly important, and they vary enormously between countries. International environmental agendas of ecological modernisation must, therefore, expect different interpretations and political reception of their project in different countries. Also, in countries as large and diverse as China (and particularly those with a federal and/or decentralised structure, as in Pakistan and India as well as China), there are large regional variations in policy and its implementation. There is a considerable degree of variation in the speed and thoroughness with which environmental policies are formulated and implemented.

Of all the countries in the Hindu Kush-Himalayan region, China perhaps has the worst environmental problems. There seems to be much more certainty about the degree and seriousness of anthropogenic erosion and land degradation than in the rest of the Hindu Kush-Himalayan region (at least on the part of researchers and civil servants). The contentious theory of the Himalayan environmental crisis, mentioned in Chapter 1, gives way, in China as a whole and in its three provinces within the Hindu Kush-Himalayan region, to unequivocal accounts of desertification, salinisation, deforestation, and greatly accelerated soil erosion. Discussion of any national environmental policy has to acknowledge the scale of the crisis.

- Desertification

Desert and deserted land area amount to 153.3 million ha, 15.9% of the total land area. The direct economic loss caused by wind erosion and desertification amounts to 4.5 billion 'yuan' per year. Deserted land has increased by more than 100,000 sq.km since 1949. Cultivated land area influenced by desertification amounts to 10 million ha, accounting for 7.9% of total cultivated land.

- Soil erosion

Soil erosion has either destroyed or seriously impaired about 1.63 million sq.km, 17% of the total land area, compared with 1.16 million sq.km at the beginning of the 1950s. Eroded cropland amounts to 44.5 million ha, 35.1%

of total cultivated land. In the Loess Plateau, the cradle of ancient Chinese civilisation, soil erosion affects 43 million ha, about 82% of its total area. The flow of topsoil into the Yellow River has been vividly called a 'massive haemorrhage of the main artery of China'. The area of 'inferior land' and 'red desert', caused by serious soil erosion in mountain and hilly areas in southern China, has increased by more than 38% since the 1950s. 'Rock-desertification', as a result of soil erosion in the karst mountainous and hilly areas of southwestern China, is especially shocking.

- Salinisation and gleisation

The area of salinised cropland covers about 6.67 million ha in northern China. Salinisation, mainly scattered in arid and semi-arid regions, results from poor soil drainage and improper irrigation practices such as excessive irrigation, flood irrigation, and irrigation without drainage. In coastal areas of eastern China, it is mainly caused by seawater flowing backwards. In addition, soil gleisation is serious in southern China, affecting 20-40% of paddy fields.

- Land pollution

The emission of waste water, waste gas, and waste residue in urban and industrial zones and the increasing application of chemical fertilisers and pesticides have seriously increased land pollution. Polluted cropland amounts to 10 million ha, of which 3.33 million ha are polluted by sewage irrigation, 5.33 million ha by atmospheric pollution such as acid rain and fluorine pollution, and 0.9 million ha by solid wastes and garbage. The annual loss of grain caused by cropland pollution amounts to approximately 12 million tonnes.

- Mined land

In the process of exploiting mineral resources, topsoil is destroyed by stripping, sinking and piling up waste ores and slag. It is estimated that mined land covers 13.33 million ha. Coal mining has caused the most serious damage. About 13,000 ha of land are destroyed each year, and usually it is land in the plains with high capability.

- Declining land capability

Lack of manure application on cultivated land has caused a decline in organic content of soil. The components of chemical fertiliser have led to an imbalance in nitrogen, phosphorus and potassium. Now, average organic

content of soil is 1-2%, and less than 0.6% in 9% of cultivated land. Fifty-nine per cent of cultivated land is deficient in phosphorus, 23% is deficient in potassium, and 14% is deficient in both phosphorus and potassium. Application of vast amounts of chemical fertiliser has resulted in soil that is hardened and impervious to water, and has caused a reduction in land capability.

Among the above types of land degradation, land desertification and soil erosion are the most widespread and have the greatest influence. Both occur in impoverished regions. It is stated in 'China's Agenda 21: The White Book on Population, Environment and Development of China in the 21st Century' that there are two regions of extreme poverty. One is the 'Three Wests' (Hexi West, Dingxi West, and West Hai-gu) in the arid region of the Loess Plateau, and the other is the karst region of Yunnan, Guangxi, and Guizhou provinces. The former is seriously threatened by desertification and the latter by rock desertification.

The history of formal environmental legislation in China is lengthy, and, for purposes of this report, only recent legal history is recorded in any detail. There have been three National Conferences on Environmental Protection, the last of which was held in 1989. At that conference, eight areas of environmental protection were identified and have been stipulated in the laws, rules, and regulations of the country. This was followed in 1992, not long after the UN Conference on Environment and Development, by approval from the central government of ten countermeasures for environment and development as follows.

- To pursue the strategy of sustainable development
- To adopt effective measures to prevent and control industrial pollution
- To carry out comprehensive renovation and control of the urban environment, and to handle the Four Evils (air pollutants, water pollutants, earth-surface pollutants, and noise pollutants) in cities
- To raise the efficiency of energy use and improve the energy structure
- To popularise eco-farming, to plant trees and strengthen protection of biodiversity
- To promote scientific and technological progress for strengthening environmental study and developing environment-related industries
- To protect the environment through economic measures
- To strengthen environmental education and to heighten environmental awareness of the public
- To improve the environmental legal system and reinforce environmental management

To work out China's plan of action in line with guidelines from the UN Conference on Environment and Development

The Constitution of the People's Republic of China also has a number of clauses on environmental protection. For example, the 26th clause states "The state aims to protect and improve the living environment and ecology, prevent pollution and other social effects of pollution". The ninth clause identifies 'Such natural resources as minerals, rivers, forest, rangeland, wasteland and so on, all belong to the state (namely, belong to the public of the whole country), except for those that belong to the collective according to the law. The state guarantees the reasonable use of natural resources, conservation of precious wildlife and wild plants, and prohibits any organisations and individuals from occupying and destroying natural resources by whatever means. According to article 10 of section 2, "All organisations and individuals who use the land must use it reasonably." These stipulations illustrate the rigid protection envisaged by law. There has been intensive legal activity to provide environmental protection through statutory law throughout the 1980s to date. However, these laws are seldom enforced, and the rule of law in all aspects of life was disregarded at particular periods of recent Chinese history.

Moving on to provincial legislation, the Yunnan Provincial Government has adopted many national laws and added to or amended others. The responsibility for enforcement lies with every city, county and relevant department, and the county itself may also add its own stipulations. For example, in 1995, the Standing Committee of Luquan People's Congress enacted the Interim Provisions on Environmental Protection of Zhangjiu River Basin in Luquan County. This is the only regulation about environmental protection made by Luquan county. The Environmental Protection Station of the Urban Construction Bureau of Luquan County is responsible for detailed planning and enforcement.

Thus, there is a formidable list of environmental laws at the national, provincial, and county level. The environment is also an important issue in the Constitution. However, it is fair to say that there is a good deal of local autonomy at the provincial level (in some provinces more than others), and at the county level and below. Enforcement is delegated to decentralised levels where personal discretion is exercised. A general tendency prevails today whereby economic growth and the fulfilment of responsibility targets take precedence over environmental conservation. In Yunnan, there are some serious and all too evident signs of industrial pollution of agricultural land, clear-cut forest, high sediment loads in many rivers, and environmentally detrimental technologies employed in road construction and in mining.

These activities are specifically forbidden by law; they have also been clearly documented elsewhere in China. The causes for non-enforcement of environmental laws and plans, and for the persistence in often ruinous land management will be discussed in the following chapters. However, we can conclude that it is neither a failure to recognise the seriousness of land degradation nor to pass laws to prevent such practices that has led to the problem.

India

The Indian National Conservation Strategy was launched in 1992. The policy statement, rightly, concedes that the "objectives of conservation and sustainable development will require integration and internalisation of environmental considerations in policies and programmes of development in various sectors." It then goes on to list in some detail the measures required to be taken in the following sectors: agriculture, irrigation, animal husbandry, forestry, energy generation and use, industrial development, mining and quarrying, tourism, transportation, and human settlements.

International cooperation has been stressed and so has the need for strengthening institutions and legislation. Training, research, environmental education, role of NGOs, and resource accounting have been listed as important inputs. It has also been stated that women at the grass roots' level should be actively involved in the conservation programmes, and constructive partnerships (in environmental contexts) established between the central and state governments.

Within each of these areas more detailed plans were made. Extracts from areas covered in this report are illustrated below.

Agriculture

- Sustainable farming (including animal husbandry)
- Plant protection policies (use of biofertilisers and biopesticides)
- Integrated nutrient supply
- Restrictions on diversion of prime agricultural lands to other uses
- Land use according to land capability
- Upgrading animal stock, restoration and protection of grazing lands: encouraging stall-feeding and rotational grazing, regulating animal population
- Conservation of water and energy in agriculture
- Encouraging appropriate crop-rotation patterns
- Strengthening rural local bodies to ensure decentralisation and optimal resource management

Forestry

- Preservation and restoration of forests
- Increasing forest/tree cover through massive social forestry and afforestation programmes and increasing productivity of forests
- Meeting fuelwood, fodder, non-timber forest products, and small timber needs of rural/tribal populations in consonance with the carrying capacity of the forests
- Restricting use of forest lands for non-forest uses and, where this is unavoidable, insisting on compensatory afforestation
- Afforestation on common property land resources by local communities
- Encouraging tree farming
- Involvement of local communities/NGOs in afforestation

National parks and wildlife

- Formation of a National Wildlife Action Plan
- Covering of four per cent of the country's land with national parks and sanctuaries
- Establishment of biosphere reserves and protected areas

Two substantive points regarding India's National Conservation Strategy can be made. Firstly, perhaps above all others in the Hindu Kush–Himalayan region, it was based on existing experience of a large and experienced civil service. While this may be an advantage, it allowed the National Conservation Strategy to be presented as a new and integrated approach to the environment and land policy without necessarily changing the policies and implementation styles at all. Many of the items were ongoing programmes and projects and were on the books in any case. Many of the enduring and pressing difficulties and debates about forest and national park policy that current policies face were not really addressed by the new strategy. This is not surprising since its emphasis was neither on fundamental issues of how the responsibility of management of natural resources should be shared between the state and other stakeholders nor what criteria should be used regarding sustainable and equitable use. Instead, there is a distinct impression of 'old wine in new bottles'. Also, the strategy did not address the particular technical, administrative, and political aspects of land policy in the hill areas of India. Together, these aspects provide a qualitatively new policy challenge that the strategy largely avoided.

Secondly, the potential for the National Conservation Strategy's role to transform environmental policy and ultimately to improve land

management and achieve a more just land policy varies enormously between the different hill states of India. While the western states have historically been under the administrative control of an established forestry and agricultural service, the eastern states (the 'seven sisters' as they are called, although they are now eight) were much more independent from imperial control in the past, and their special status is enshrined in the Constitution. The Forest Department has relatively little control of the forests in these states, and relations with the centre have been fraught with suspicion and with strategic and military matters. Also, the planning capability of all states in environmental and other sectors in the northeast is severely limited. There are networks of patronage permeating political activities involved in raising funds for elections that lead to the cutting and disposal of timber, and the involvement of local leaders right up to senior ministers, that occur on a scale that is not found in the western hill states. It is unlikely that the comprehensive intentions of the National Conservation Strategy will lead to more efficient and sustainable use of natural resources in the near future. It has been through other means that have little to do with the existence of the National Conservation Strategy that the centre has been able to exert some degree of restraint, as will be described in Chapter 5.

Nepal

The Nepal Environmental Policy and Action Plan (NEMAP) was prepared by the government with support from the World Bank in 1993. This document analyses the country's environmental issues in a multisectoral framework and sets forth a strategy for maintaining the country's natural environment, the health and safety of its population, and its cultural heritage as economic development occurs. Below is a summary of the Nepalese government's environmental policy and sectoral policies related to agricultural land, forest and rangelands, and biodiversity conservation.

There are five main aims as follow.

- To manage natural and physical resources efficiently and sustainably
- To balance development efforts and environmental conservation for sustainable fulfilment of the basic needs of the people
- To safeguard national heritage
- To mitigate the adverse environmental impacts of development projects and human action
- To integrate environment and development through appropriate institutions, adequate legislation and economic incentives, and sufficient public resources

The main problem that Nepal faces, perhaps more than any other Hindu Kush–Himalayan country, is that the NEMAP requires a strong national apparatus to coordinate and implement it, and this exists to a lesser degree than in the case of some of its neighbours. The government relies heavily on international support for policy formulation and implementation. A number of Nepalese professionals have, for good reason, drawn attention to the dependent nature of Nepalese environmental policy upon a diverse and swiftly changing range of development styles and fashions, most of which are imported from abroad. Foreign aid in the sector is often in the form of projects. This makes coordination and the establishment of an overall national (Nepalese) style on policy all the more difficult. Furthermore, the counterpart system, whereby the most able and ambitious government servants take leave of absence from their regular government posts to serve in foreign projects, further robs the national cadre of its best personnel. Projects, too, tend to become the central focus of policy-making rather than an overall coordinated approach as demanded by the NEMAP. Thus, the NEMAP has tended to remain a paper tiger, and no central cadre in the government has either much professional interest or the critical mass of able reformers to make it operational. At the same time, there are a number of more localised efforts in a number of sectors that could, incidentally, be interpreted as following the general spirit of the NEMAP.

Pakistan

The National Conservation Strategy is generally accepted by the government and the international donor agencies as the national environmental action plan. The strategy was prepared through a process of consultation that was unprecedented in the history of policy-making in the country. The National Conservation Strategy Steering Committee, which was chaired by the Deputy Chairman of the Planning Commission, consisted of 16 members and accorded representation to the federal government, industry, NGOs, and the media. A total of 30 background papers, including sector and prescriptive papers on agriculture, forestry, nature capital, soils, water use, environmental economics, and environmental legislation, were prepared by sector and area specialists responsible for preparing programmes of consultation with other experts, implementation agencies, grass roots' workers, and communities.

The strategy identified 14 core areas in which policy intervention was considered crucial to preserve Pakistan's natural environment. These include issues such as maintaining soils in croplands, the preservation of forestry and plantations, and the conservation of biodiversity.

The approval of the strategy by the Cabinet was followed by the establishment of a Cabinet-level Implementation Committee chaired by the

Minister for the Environment. This committee formulated a five-year plan of action for implementation of projects in key areas identified in the strategy. It has been active in soliciting donor funding for the purpose. One of the key policy decisions was the establishment of a National Conservation Strategy Unit in the Ministry of Environment, Local Government and Rural Development to coordinate and monitor the implementation of the strategy and to provide institutional support to federal and provincial government agencies, donors, and NGOs. The National Conservation Strategy Unit thus serves as a focal point for environmental policy implementation efforts.

With reference to mountain areas in particular, the unit has been instrumental in coordinating with the International Conservation Union to implement a biodiversity project in the Northern Areas with the assistance of the Global Environment Facility.

Whether the initial momentum unleashed during the process of the strategy's formulation has been carried through to the implementation stage is, however, a moot point. In general, government officials have expressed fears that recognition of the National Conservation Strategy as a policy document is confined to the federal government. The strategy that was formulated as a result of a unique consultative process has failed to have an impact on local-level planning initiatives. The process was originally intended to be carried through to the provinces, and provincial conservation strategies were to be formulated for each administrative unit. To date, only the Sarhad Conservation Strategy has been approved. A strategy for the Northern Areas is currently in process and initial focus group meetings are being carried out in the region. The Northern Areas' Conservation Strategy is expected to be ready in about three years. The general issues addressed in the plan are given below and are called core programme areas.

- Maintaining soils in croplands
- Increasing irrigation efficiency
- Protecting watersheds
- Supporting forestry and plantations
- Restoring rangelands and improving livestock
- Protecting water bodies and sustaining fisheries
- Conserving biodiversity
- Increasing energy efficiency
- Developing and deploying renewables

- Preventing/abating pollution
- Managing urban wastes
- Supporting institutions for common resources
- Integrating population and environment programmes
- Preserving the cultural heritage

The decentralised structure of planning in Pakistan has had effects both beneficial and harmful to national environmental planning. Firstly, the process initiated a wide-ranging process of consultation that may facilitate further exercises of local and participatory planning. Secondly, plans, since they are locally formulated within general guidelines, can reflect the environmental and social priorities appropriate to the region. How much these priorities reflected the interests of a wide range of social groups, or merely those of a coalition of the policy elite and the leading landed interests, is open to question. Finally, the whole planning process in a federal structure such as Pakistan, and particularly in the Northern Areas with its provisional political status, is extremely slow: so slow that the initial momentum seems to have dissipated through time. In Pakistan, each province has been charged with formulating its own provincial conservation strategy. This is a lengthy procedure and, as yet, the only strategy approved is the Sarhad Provincial Conservation Strategy (SPCS) in 1992 with assistance from the United Nations Development Programme and a number of national state agencies and NGOs. However, it is difficult to trace through definite changes in policy or the addition of new ones at this time.

Environmental Impacts of National Environmental Strategies

What could one expect after five years or so after the majority of countries have national strategies and plans? A national strategy or action plan can be likened to a lever connected to a complex set of linkages that start at the initial strategy paper and pass through an action plan to end at implementation on the ground. At each linkage, there occurs a degree of slippage and noise added to the original transmission and a delay in time before the impulse is transmitted to the next linkage. Ongoing bureaucratic procedures, national and local politics, and conflicting interests and interpretations provide the source of this slippage and noise, and it is naïve to expect anything else. Also, national strategies and action plans are comprehensive and have ambitious goals, so that it is more reasonable to expect that they are seen as part of a process of reform that may take many years to fulfil. However, an evaluation has to take a hard look at any pervasive and self-perpetuating practices, styles of administration, and

politics that stand in the way of ecological modernisation and other reformed styles of policy-making and implementation and may stall any progress in the foreseeable future.

National environmental strategies are almost always intellectually coherent, integrated documents. Nonetheless, some criticisms of omission can be made. They require far-reaching administrative reform, quite intense conscientisation, training, and altered professional behaviour at all levels, from the minister right down to the forest ranger/junior technician as well as the formation and successful running of countless committees and local organisations that manage natural resources. So, it is not reasonable to expect actual environmental impacts from these strategies, except where the strategy requires easy to implement, rapid policy alterations, usually of a technical nature, involving a single major decision or where ongoing policy was already in place. What one can expect in the medium term is evidence of movement in the intermediate links in the process (consultation, reflection, changes in legislation, decentralisation of planning, reorganisation of administrative and executive powers, and so on).

The evidence of such administrative, legal, and policy reform that is required to take national strategies further is rather meagre in most countries. While there is a difference in the time at which these initiatives started (India and Pakistan first, shortly followed by Bangladesh and Nepal, and China and Bhutan later), almost universally there is an initial burst of enthusiasm, sometimes wide consultation within government and — unusual for some administrations — within civil society too, and then a quite rapid process of de-energisation, institutionalisation and, finally, fossilisation. The initial impetus for national environmental policies was provided by multilateral organisations and bilateral aid agencies. Many countries embarked on wide and lengthy consultative processes, and, typically, a number of task forces and consultative committees were set up. After this point, it is possible in many, but not all cases, to see a process of run down, and many of these committees have yet to file reports after some five years or so since their formation.

There is also another characteristic of national environmental policies that is pervasive in some instances, but difficult to prove, without the kind of intensive research that this study could not undertake. Some senior policy officials and other informants from international and bilateral agencies privately mentioned this characteristic, and it is therefore stated here with some hesitancy. It is what might be called the 'old wine in new bottles' tendency. Ongoing projects are fitted into the new programme, and these will be carried out on the ground in ways that are unchanged. New populist rhetoric will appear to grace ongoing programmes, but foot-dragging will

occur where the rhetorical device cannot serve. For example, the Forest Department in Nepal published its Five-Year Action Plan, and in it were references to the Nepal Environmental Policy and Action Plan. However, it is difficult to avoid the impression that this plan was following predetermined strategies with new labels. The problems identified therein were national and generic in nature without being grounded in specific regional issues. The National Conservation Strategy of India also seems to be similar. The document fully recognises the complexity of the problem and it lists various regulatory and promotional measures that had already been taken prior to the strategy (e.g., establishment of the Department of Environment, Central and State Pollution Control Boards etc.). However, there has been little progress in the actual implementation of policy and enforcement of laws and regulations. Accounts of other national environmental strategies would come to similar conclusions. The environment is seldom at the top of any political agenda for long and many of the necessary measures that are implied are complex and costly to undertake. There are a number of reasons that have contributed to this process of run-down.

- It might be assumed in conventional policy analysis that policy-making is a matter of 'talking truth to power'. This means that, provided the policy is rational, coherent, and scientifically justified, it will be accepted politically and will then be a matter of implementation by the civil service. However, it never is. Furthermore, it is even further away from this assumption in governments that (a) have problems of executive capacity; (b) a less-then-secure political and administrative control of many of their more remote regions; and (c) contain government servants who see certain new policies as contrary to their professional interest. All the issues typically mentioned in these documents are political in a number of ways. First, environmental strategy is cross-departmental and requires cooperation (e.g., between departments of forest and land revenue) that can engender turf wars; there are several examples of these in the country studies. Policies also imply new alignments of stakeholders that require strong government and a certain degree of independence from competing interests. Strong government is not a hallmark of the region.
- There are important contradictions in national environmental strategies with preceding development dogmas that have usually emphasised economic growth at (almost) all costs. In many countries, the strategy is used by business and commerce to legitimise the externalisation of environmental costs resulting from their activities. A commonly heard sentiment is 'but can we afford environmental policy?' (e.g., in China). Powerful industrial and agricultural-based political interests in China, India, and Pakistan have been chaffing at

the potential restrictions and raised prices that reflect environmental costs more fully and that any national strategy would lead to.

- National environmental strategies are demanding of organisational and personal skills. They provide a tremendous challenge in that they require that routine-bound, underpaid, often demoralised and under-trained administrations become flexible, learning organisations that must often share information and negotiate with those that they had previously thought of as target populations suitable only for instruction or policing.
- National environmental strategies are 'retro-fitted', in that they have appeared in already set administrative structures and routines that fulfil a completely different set of objectives. Certain administrative changes have usually followed (e.g., a department of environment, new inter-departmental committees and boards, and decentralised consultative institutions). These changes are always difficult to bring about and much of the implementation of the environmental policy involves a high degree of learning by doing, something that any bureaucracy finds difficult.

Foreign Aid, Land Policy and Sustainability

Many national environmental strategies, as well as conservation projects and other programmes with environmental relevance, rely heavily on foreign funds and some contribution to project personnel (which can be major in some instances, e.g., Nepal and Pakistan). Indeed, a degree of coercion, applied by the weightiest multilateral organisations, some of the better-funded international NGOs and bilateral agencies, has being going on as part of the globalisation of environmental policy (or ecological modernisation, as it has been styled in this report). As this report has claimed, ecological modernisation engages with entrenched administrative, political, strategic, and ideological positions at the national level. These are discussed throughout this report because they provide a realistic assessment of what environmental impacts, land policy, and, in more general terms, national environmental strategies, might have in the foreseeable future. There are other aspects of ecological modernisation that do not engage with resistance: in fact, quite the opposite, especially where there are new employment opportunities for government employees at higher levels in the form of training and promotion, superior equipment, and so on.

The researchers for this study talked to many officials from national governments of the Hindu Kush–Himalayan region and from international and foreign institutions. Many of their opinions are as impressionistic as they are contradictory, but there appears, through the mass of diverse

opinion, a number of broadly held views regarding national environmental strategies and their broad environmental goals. Some will resonate in some countries more than others, and in some sectors of the civil service more than others. Four main issues emerge.

- Job descriptions for many professionals may have to be completely rewritten to fulfil certain aspects of national environmental strategies with the effect of confusion, loss of morale, and professional pride (the Forest Departments of at least three Hindu Kush–Himalayan countries are prime examples).
- Coordination between different policy-making and implementing units is essential to a comprehensive and integrated national environmental strategy. This can precipitate 'turf wars' for which there are no, or inadequate, means to resolve.
- The overarching and strategic vision of a national environmental strategy is difficult to sustain for all but a few of the reforming policy elite in any country: for the routine, daily life of most agricultural, forestry and wildlife officers at the divisional and district levels (and below the provincial level in Yunnan Province in China), it still means little.
- Therefore, for many, there is an attitude of passive resistance against perceived threats, comprehensive ignorance for many more, and of opportunistic enthusiasm for those few who can benefit their careers and skill levels.

The implications for the sustainability of momentum for national environmental strategies are, therefore, mixed and, of course, vary between countries and sectors. There are, in some locations, networks of committed, usually younger professionals, often, but not always, foreign trained who carry certain projects of the national environmental strategy forward. Training and re-orientation of other cadres is also part of most strategies, although their efficacy is seldom evaluated, and impacts are difficult to follow through.

Bureaucratic Styles and Cultures

It is useful to examine land policy at the national level by comparing policy-making style and culture to three ideal stereotypes. These exist only in abstract and not in reality, and, indeed, a particular land policy may borrow a number of characteristics from more than one ideal type. Nonetheless, the ideal type has a number of assumptions that are consistent with a particular policy style. The three ideal types are classic, populist, and neo-liberal. This report wishes to make no judgement about which style is 'best': indeed, a

pragmatic and mixed policy may be best suited to particular national contexts. Each style has a number of ideological and philosophical assumptions. Each faces contemporary problems in environmental management in the region. They also face some degree of contradiction and confusion in their sets of assumptions.

Within an historical perspective, the classic style derived its origin from the colonial state. It is a prescriptive, top-down and authoritative approach. It is expert led and is justified by formal science. In spite of resistance from local people and from anti-imperial and anti-state sentiment world-wide, the style has strong resilience and survives in many state organisations. This report details a number of examples in forestry and agriculture in the region. The populist approach is usually more egalitarian and anti-state. Virtue in all things, the approach assumes, resides with the people. Its typical institutional vehicle is the NGO, and its origins are undoubtedly international. In certain countries, Nepal for example, Nepal, the dominance of foreign aid in the national development budget and imported development ideas have led to a considerable undermining of state authority in development matters. More and more funds go to NGOs which are seen to bypass cumbersome bureaucracy and a less than transparent accountability of project resources. More fortunate government employees are seconded to these projects, or leave the government sector altogether. It is they who become recruits to the neo-populist style and leave the professionals from the classic mould in government often to mount a rearguard action against the new style. It claims to be a bottom-up, people-orientated, and decentralised approach. It aims to be participatory and talk up local technical knowledge and local resource-management institutions. Again, there are plenty of examples in this report (Table 3.2).

Finally, the neo-liberal approach to environment, launched initially by the World Bank (1992) in the early 1980s, takes an economic approach to the environment in which individuals, being rational utility maximisers will, if they bear the cost and reap the benefits of managing and deriving utility from natural resources, seek to use them sustainably. Environmental costs of any activity must be identified and internalised, thus policy seeks to eliminate subsidies and promotes clear property relations (implicitly, private property being preferred). This style has since been underpinned by a growing literature on environmental and institutional economics and certain aspects have been attached to conditionality clauses of loan agreements. It is this style that is dominant in most national environmental strategies, though there are a number of points at which populist sentiments prevail, particularly regarding participatory management and local rights to resource use.

Table 3.2: Three paradigms of environmental conservation from Biot et al. (1993)

	Classic	Populist	Neo-liberal
peasant behaviour	ignorant, irrational, traditional	virtuous, rational community-minded	rational, egocentric
diagnosis of environmental problem	environmental solutions	socio-political solutions	economic solutions
immediate causes of environmental problems	mismanagement by users	mismanagement by state, capitalists, transnational corporations, big business	poor government policies and bureaucratic rules and regulations
structural causes of degradation	overpopulation, backwardness, lack of foresight, ignorance	resource distribution, inappropriate technologies	inappropriate property rights, institutions, prices, and rapid population growth
institutional prescription	top-down, centralised decision-making	bottom-up participation	'market' policies, property rights, resource pricing, self-targeting safety nets
academic discipline; profession	science; bureaucrat	sociology; activist, NGOs	economics; development professional
gender orientation	gender blind	virtuous but victimised women	gender myopia
research framework	systematic empiricism	rapid/participant rural appraisal, community as unit of analysis	methodological individualism
orientation to market	not considered	exploitation	pareto-optimality and externalities
models of peasant society	conservative, paternalistic	egalitarian	democratic / liberal
views of collective action	deficient	essential and unproblematic	conditional rationality /political entrepreneurs
technology	soil conservation works particularly terracing	agronomic techniques of conservation	not specified

These styles of environmental policy-making all appear in the national environmental strategies, but the dominant one is the neo-liberal which forms a central, but not exclusive, position in most documents. It is the coherent rationality that runs through most of the documents. There are also strong populist tendencies that promote a more participatory style. Often, the ideology of a populist approach is taken for granted (e.g., it is more democratic, sensitive to differences of wealth, gender, and culture), but there is little in the way of the rationality in a participatory approach. In other words, why should a participatory approach to agricultural research, forest management, land use, and so on work any better in an environmentally technical sense than the existing classic top-down approach? There has to be an evidence-based case why, for some policy areas, it may be a more effective approach from an environmental management point of view. In the following sectoral chapters, such a case is presented. Moreover, this study claims that the classic approach is becoming practically and politically increasingly fragile. Instead, a decisive, though painful, re-orientation towards a blend of market-led and populist land policies is advocated. However, the populist alternative is also prone to dangerous assumptions and wishful thinking. A more participatory and decentralised style of environmental management does not avoid new conflicts. It cannot assume the virtue of the 'community' regarding either equity or efficiency in environmental management. It leaves the state, in various ways, with a difficult refereeing and regulatory role. In this respect, the recommendations of the World Bank (1992) and this report are not in disagreement.