

Chapter 7. Malaysia

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Malaysia

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SUMMARY

Malaysia is recognized as one of the 12 countries in the world with mega-biodiversity. The nation's biological diversity has important economic, technological and social implications. Agriculture, forestry and fisheries have been major contributors to national wealth, and scientific developments — particularly in biotechnology — are expected to boost new industries, such as pharmaceuticals, and provide additional opportunities for economic growth. Malaysia also places a priority on conserving its rich natural heritage for the benefit of present and future generations. During the 1992 UNCED negotiations, Malaysia pledged itself to a minimum of 50 per cent forest and tree cover in perpetuity while issuing a challenge to the world community to commit to a 30 per cent global forest cover.

Malaysia implemented policies for the conservation and sustainable use of its rich biological diversity even before the Convention on Biological Diversity (CBD) was adopted on 5 June 1992. The convention was ratified by Malaysia on 24 June 1994 and entered into force three months later. In 1997 Malaysia adopted a National Policy on Biological Diversity (NPBD), building on its past experience and recognizing the need to reinforce multi-sectoral roles in the management of biodiversity resources.

The process used to develop the NPBD was the main reason the policy was well received and implemented. In 1994 the Ministry of Science, Technology and the Environment (MOSTE), the focal agency for biological diversity, launched an extensive consultation process. Consultations were held at all levels of society, including various sectoral government agencies, state governments, the NGO community and the private sector. These consultations were based on sound research and analytical work undertaken wholly through local expertise from academia, government research organizations and NGOs. In Malaysia, the 13 states (equivalent to provincial governments) have jurisdiction over natural resources and therefore their agreement and full support was crucial before the federal government could adopt this national policy.

The consultative process and the pragmatic recommendations that resulted from it ensured that the NPBD was adopted within the relatively short span of three years. The goal of the NPBD is to transform Malaysia into a world centre of excellence in conservation, research and use of tropical biological diversity by the year 2020.

The country has a long experience in the research and use of tropical resources such as rubber and oil palm. The expertise gained in these fields will be applied to the conservation and sustainable use of indigenous biological diversity. Supporting the NPBD's goal are five objectives, 15 strategies and 86 action plans. Each of these elements has been carefully selected for its importance for Malaysia and its feasibility in terms of implementation.

These are some of the critical biodiversity conservation issues faced by Malaysia which the NPBD seeks to address:

- reversing the trend of forest loss and degradation. While biodiversity loss due to agricultural activities has now largely abated, an increase in manufacturing and urbanization poses a new threat, which may have a devastating impact in the long term if not properly managed.
- promoting and building the necessary scientific and institutional base to realize the greatest benefits from rich biodiversity resources. This is necessary to bring about a shift from resource extraction to long-term sustainable use. There is also a need to regulate and ensure equitable access to biological resources for both local and foreign interests. Biosafety issues also need to be addressed urgently to protect indigenous biodiversity from threats of alien species.
- ensuring effective coordination among federal agencies and state government for the conservation of biological diversity. Most state governments lack the necessary institutional capacity and technical skills to plan and implement conservation measures. In addition, sectoral policies, such as those for forestry and agriculture, need to be infused with a greater conservation ethic.
- encouraging the participation of the private sector, local communities and civil society in general on conservation measures. The general public is apathetic concerning the importance and benefits of conservation. This apathy is based largely on the erroneous belief that the public sector should bear the burden of conservation.

Several practical steps have been taken to implement the provisions of the NPBD, including enhancing the institutional structure for biodiversity management and drafting regulations for access to biological resources and biosafety.

The NPBD also provides a blueprint for various sectors in the conservation and sustainable use of biological diversity.

Introduction

Malaysia covers an area of about 32.86 million hectares, including Peninsular Malaysia (with 11 states and the Federal Territory of Kuala Lumpur), as well as the states of Sabah and Sarawak and the Federal Territory of Labuan in the northwestern coastal area of Borneo Island. The two regions are separated by about 540 km of the South China Sea. Peninsular Malaysia covers 13.16 million hectares, bordering Thailand in the north and Singapore to the south, while Sabah, with an area of 7.37 million hectares, and Sarawak, with about 12.33 million hectares, border Indonesia's Kalimantan territory.

Malaysia is one of the most biodiversity-rich countries in the world, a fact which has important economic, technological and social implications for the nation. Agriculture, forestry and fisheries contributed 13.6 percent of the national gross domestic product in 1995; they also accounted for 16 percent of total employment and 12.1 percent of total export earnings.

The flora of Malaysia is exceedingly rich and is conservatively estimated to contain about 12,500 species of flowering plants, and more than 1,100 species of ferns and fern allies. Much is still unknown about the country's flora, especially lower plants such as bryophytes, algae, lichens and fungi. There is also great diversity in fauna, including about 300 species of wild mammals, 700-750 species of birds, 350 species of reptiles, 165 species of amphibians and more than 300 species of freshwater fish. There are about 1,200 species of butterflies and 12,000 species of moths; by conservative estimate there are more than 100,000 species of invertebrates. Endemism in flora and fauna is high.

Tin mining in the middle of the 19th century, establishment of rubber plantations at the start of the 20th century and oil palm cultivation led to a decline in forested areas in the lowlands. In the 1970s and 1980s, poverty eradication programs and the expansion of land development schemes saw forests converted to vast oil palm plantations.

Between 1978 and 1994, approximately 1.4 million ha of Permanent Forest Estates (PFEs), mostly lowland forests, were degazetted, and over 1.2 million ha were converted to agricultural purposes (Table 1). While the *National Forestry Act* (1984) stipulates the need for replacement of degazetted PFE, there is no requirement to replace it with forest land of equal or greater quality in terms of biological diversity.

Table 1. Extent of PFE degazetted between 1978-1994 (hectares)

Region	Peninsular Malaysia	Sabah	Sarawak	Malaysia Total
Total degazetted	698,781	431,826	262,050	1,392,657
Agriculture	560,158	431,826	238,545	1,230,529
State parks	48,905	—	8,720	57,625
Township/resettlements	9,798	—	194	9,992
Reservoirs	5,257	—	—	5,257
Highways	108	—	—	108
Others*	74,555	—	14,591	89,146

* Army reserves, tourism development, mineral exploitation, quarrying, golf courses, land fills, land alienation and others. Source: Country Study on Biological Diversity

The degazettement of forests has now abated; the land under natural forest is now 57.5 percent of the total land area of 32.86 million hectares (Table 2).

Table 2. Distribution and extent of major forest types in Malaysia, 1997
(millions of hectares)

	Peninsular Malaysia	Sabah	Sarawak	Total
Land area	13.16	7.37	12.33	32.86
Dipterocarp	5.38	3.83	7.20	16.41
Swamp	0.30	0.19	1.20	1.69
Mangrove	0.10	0.32	0.20	0.62
Total forested land	5.85	4.45	8.61	18.91
% of forest to land area	44.5	60.4	69.8	57.5

A total of 3.43 million ha of natural forest has been designated as protected forest. Another 2.12 million ha are national parks or wildlife sanctuaries. In total, about 29 percent of the natural forest is protected.

In the marine environment, the waters surrounding 38 offshore islands of the country are gazetted as marine parks.

Despite significant advances, conservation efforts require strengthening to cover important habitats that are under-represented, as well as individual species of plants, insects and fish, and landraces of indigenous plant species such as fruits and rice. The system of ex-situ conservation also needs to be further developed.

There is no single comprehensive piece of legislation in Malaysia that relates to biological diversity conservation and management as a whole. Much of the legislation is sector-based and does not give specific consideration to conservation and management of biological diversity (Annex 1).

State governments have jurisdiction over their forest resources, although the federal government provides guidance on management and development, undertakes research and development, and promotes industrialization and marketing. In 1984, the *National Forestry Act* standardized and strengthened legislation concerning the administration, management, conservation and development of forests in Peninsular Malaysia.

Under the Federal Constitution, the overall authority to legislate for matters relevant to biodiversity does not rest with any single body. The allocation of responsibility for biodiversity conservation and management is set out under the Federal, State and Concurrent Lists of the Ninth Schedule. Some responsibilities are federal, some are state; others are shared.

Biological diversity and national development planning

Development activities in the various economic sectors have a profound impact on biological diversity. To minimize the negative impact of such activities, conservation and sustainable use considerations must be incorporated at the earliest stage into development plans, such as the Five-year Development Plans and the Second Outline Perspective Plan (1991-2000), which embodies the New Development Policy. Biodiversity needs to be addressed as an important component in these policies, and mechanisms must be defined to ensure effective coordination and integration in the management of biodiversity resources across all sectors.

The Seventh Malaysia Plan (7MP), 1996-2000, retains the concept of balanced development that was first introduced in the Sixth Malaysia Plan (1991-1995). The strategies of the 7MP focus on sustaining the country's economic growth while ensuring equitable distribution of benefits to all Malaysians.

Improving productivity is the main factor in sustaining economic growth. The 7MP emphasizes increased efficiency in production processes to achieve growth. There is less reliance on inputs of natural resources to achieve higher economic growth. This is in line with the 7MP's concept of sustainable development and recognition that economic growth should not be achieved at the expense of environmental and natural resources.

The 8th Malaysia Plan (2001–2005) and the 3rd Outline Perspective Plan (2001–2010) are being developed. The NPBD will be used as a framework to set development priorities for the next five years (short term) and the next ten years (medium term). The adoption of a national biodiversity policy is very timely, and provides an opportunity to translate its elements into specific programs and projects of the larger economic development planning process.

Formulation of five-year development plans is coordinated by the Economic Planning Unit (EPU) in the Prime Minister's Department; the EPU is responsible for development planning in general. The EPU establishes a number of Inter-Agency Planning Groups (IAPG) for major sectors and Technical Working Groups (TWG) for specific issues to facilitate inter-agency coordination and discussion. The environment has been accorded special emphasis in the form of a distinct chapter in the five-year development plans, and a related IAPG.

A TWG on natural resource management is usually established to address concerns regarding biological diversity. The TWG involves related government agencies such as forestry, agriculture and land management, and also includes representation from NGOs and private sector professional associations.

As a national policy document, the NPBD guides IAPG and TWG discussions about specific programs and projects that are in line with its objectives. The emphasis in the five-year development plans is translating the NPBD into practical programs and projects, assigning responsibility for implementation, allocating resources, and, more importantly, ensuring coordination among the various sectors. Recommendations in the five-year development plans are then used by various sectoral agencies to plan their annual budgets.

With the adoption of the NPBD, it is expected that the 8th Malaysia Plan will, for the first time, incorporate nationwide policies and programs on biological diversity that are better coordinated and more effectively implemented.

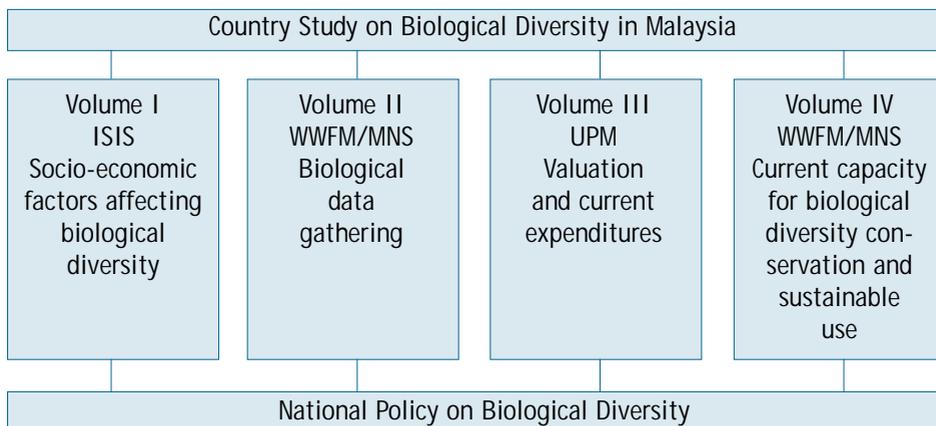
BSAP origin and development

In 1992, soon after the Earth Summit in Rio de Janeiro, the Malaysian Cabinet appointed MOSTE as the national coordinator of all issues related to biological diversity. MOSTE established a National Committee on Biological Diversity (NCBD), headed by its Secretary General, to be responsible for policy matters and inter-agency coordination. A National Technical Committee on Biological Diversity (NTCBD) was also established under the NCBD to undertake technical studies and advise it on technical issues. Because of the cross-sectoral nature of biological diversity, the NCBD and the NTCBD included representation from relevant ministries, state governments, academia and research institutions.

Task Force Groups from the NCBD or NTCBD undertake specific assignments. While membership in the NCBD and the NTCBD is not open to individuals or agencies outside the government, NGOs, private sector and other interested parties have the opportunity to participate in task force deliberations. One group, headed by Professor Dato' Zakri Abdul Hamid, Deputy Vice Chancellor of University Kebangsaan Malaysia, undertook the development of the National Policy on Biological Diversity. Other assignments included formulation of the Country Study on Biological Diversity and drafting of national laws on access to biological diversity and biosafety.

The process of preparing the National Policy on Biological Diversity became a priority in 1993, soon after the establishment of the NCBD. The task force prepared a draft document and a final draft was developed through a series of intensive reviews, including a workshop. The draft drew from results of the Country Study on Biological Diversity, which was carried out at the same time and included sector-specific studies (Figure 1).

Figure 1. NPBD formulation process



The draft policy was reviewed by representatives from relevant ministries, government departments, research institutes, universities, state governments and NGOs. The Malaysian Cabinet adopted the policy on 22 October 1997.

The BSAP initiative was country-driven; only local expertise was involved throughout the process. NGOs played a pivotal role and had a substantive involvement in the specific studies. The process of NPBD development was highly participatory, including a broad spectrum of stakeholders and a range of consultation mechanisms.

The key measure of success of the NPBD is the relatively short time of three years that it took from inception to adoption by government. The NPBD is the only national policy adopted in such a short time involving a multitude of agencies at the federal level, on an issue mainly under state government jurisdiction affecting a high percentage of the population.

BSAP scope and objectives

The Malaysian National Policy on Biological Diversity's stated goal is: "transforming Malaysia into a world centre of excellence in conservation, research and utilization of tropical biodiversity by the year 2020". This statement was carefully formulated to provide the impetus to achieve its objectives. It was recognised that the vision should be realistic, achievable and governed by a specific time frame. Malaysia has experience in the research and use of tropical bio-resources, including rubber and oil palm cultivation, production and utilization. Such established expertise in the agricultural field could be further strengthened to exploit valuable resources and enhance conservation efforts.

Vision 2020, the aim of which is achieving developed nation status with appropriate socio-economic growth by the year 2020, is in place. Vision 2020 recognizes the importance of balanced growth, giving due consideration to sustainable development and environmental protection. The country must use its wealth of natural resources and rich biological diversity to fuel economic activities. The NPBD vision complements this national development vision by promoting and enhancing Malaysia's biodiversity.

The NPBD also sets out the main principles for its policy framework (Box 1). These principles encompass the ways in which biological diversity, its cultural and ethical values are perceived, and its relationship to other sectoral policies. Effective management of these biodiversity resources will be built on Malaysia's long history of coexistence and sustainable use by local communities.

Box 1. NPBD principles

Conservation and sustainable utilization of the nation's biological diversity will be based on the following principles:

1. The conservation ethic, including the inherent right to existence of all living forms, is deeply rooted in the religious and cultural values of all Malaysians;
2. Biological diversity is a national heritage and must be sustainably managed and wisely utilized today and conserved for future generations;
3. Biological resources are natural capital and their conservation is an investment that will yield benefits locally, nationally and globally for the present and future;
4. The benefits from sustainable management of biological diversity will accrue, directly or indirectly, to every sector of society;
5. The sustainable management of biological diversity is the responsibility of all sectors of society;
6. It is the duty of government to formulate and implement the policy framework for sustainable management and utilisation of biological diversity in close cooperation with scientists, the business community and the public;
7. The role of local communities in the conservation, management and utilisation of biological diversity must be recognized and their rightful share of benefits ensured;
8. Issues in biological diversity transcend national boundaries and Malaysia must continue to exercise a proactive and constructive role in international activities;
9. The interdependence of nations on biological diversity and in the utilisation of its components for the well-being of mankind is recognized. International cooperation and collaboration is vital for fair and equitable sharing of biological resources, as well as access to and transfer of relevant technology;
10. Public awareness and education is essential for ensuring the conservation of biological diversity and the sustainable utilisation of its components;
11. In the utilisation of biological diversity, including the development of biotechnology, the principles and practice of biosafety should be adhered to.

NPBD objectives

Based on these vision and principles, the NPBD sets out the following six objectives for the sustainable use of biodiversity:

- to realize the greatest possible economic benefits from sustainable utilisation of the components of biological diversity;
- to ensure long-term food security for the nation;
- to maintain and improve environmental stability for the proper functioning of ecological systems;
- to ensure preservation of the unique biological heritage of the nation for the benefit of present and future generations;
- to enhance scientific and technological knowledge, and educational, social, cultural and aesthetic values of biological diversity;
- to emphasize biosafety considerations in the development and application of biotechnology;

There was extensive debate as to whether these objectives should be ranked in order of importance. It was concluded that, while all the objectives needed to be addressed, some order of priority should be established to guide implementation, taking into account the needs and capability of the nation. The National Committee on Biological Diversity felt that, as a developing country, Malaysia should give overall precedence to economic benefits from biodiversity resources, in the short term at least. Similarly, long-term food security, to meet peoples' basic needs, was identified as a key objective. Food security is becoming a major concern, from external threats as well as the potentially adverse effects of biotechnology. In many cases these are beyond the control of developing countries. The increasing use of proprietary planting materials from multinational companies, and genetically modified organisms (GMOs), for example, may affect traditional food production patterns.

Assigning priorities was not intended to devalue the importance of any of the objectives, but to address the most important needs first. This is important if the NPBD is to be implemented effectively, although priority ranking is not explicitly expressed in the NPBD.

Strategies and action plans

To achieve the objectives 15 strategies were outlined in the NPBD (Annex 2). Each of them was extensively debated in terms of its relevance and priority for implementation. The strategies were also ranked, although their order of importance did not necessarily match that of the objectives. Improving the

scientific knowledge base was felt to be most important, since that was considered to be a prerequisite of all other activities. Sustainable development of biodiversity resources was also given a high priority, because it contributes to economic growth and, by attaching economic values to resources, creates an impetus for their conservation.

Each of the strategies is further refined into action plans, 86 of which are incorporated into the NPBD. These action plans will be implemented by various sectoral agencies according to their mandate and ability. MOSTE takes the lead in implementing actions that require cross-sectoral coordination, as well as those which do not fall under the purview of any one sectoral agency.

Implementation, monitoring and follow-up

The NPBD was developed with the understanding that sectoral agencies were already undertaking related activities according to their respective jurisdictions. The NPBD does not attempt to supplant existing sectoral policies, but acts as a catalyst to bring together sectoral interests to achieve the overall aim of sustainable management of biological diversity. In terms of implementation, the NPBD emphasizes continuity and enhancement of related activities by the various sectoral agencies.

Box 2. New mechanisms

New mechanisms or institutions are proposed only after careful review as to whether existing institutions can undertake the tasks concerned. Examples where existing arrangements or capacities were lacking include a legal framework on access to biological resources, biosafety, and establishment of a National Biodiversity Council to play an advisory role and promote coordination. The council, once established, will play a pivotal role in ensuring the NPBD's effective implementation. It is envisaged that the National Biodiversity Council will operate through, and be assisted by, State Biodiversity Councils, which will oversee implementation in their respective states. The division of functions between the national and state councils will depend on the issues under consideration. Biosafety concerns, for example, will primarily be the jurisdiction of the National Biodiversity Council, while issues related to access to genetic resources will be the responsibility of State Biodiversity Councils. It is expected that NGOs and local/community groups will find representation on these councils at the appropriate level.

This approach to implementation has given the NPBD wide acceptance by the various sectoral agencies and other interested stakeholders. In fact, the recommendations contained in the NPBD provide a mandate for sectoral agencies to reorient some of their activities to be more conscious of biodiversity. For example, the NPBD is helping to guide a process of national certification of sustainable forestry management practices. And since the recommendations contained in the NPBD will be incorporated into the 8th Malaysia Plan (2001-2005) and the 3rd Outline Perspective Plan (2001-2010), they will be automatically integrated into national socio-economic development programs and projects.

MOSTE, as the NPBD's national coordinator, will carry out awareness campaigns about the NPBD from time to time, even though the government has readily accepted it. This is necessary to ensure that stakeholders understand the implications of the policy. MOSTE has already been active in this respect, holding workshops in collaboration with the state governments to explain and publicise the NPBD, targeting those carrying out implementation as well as the public at large. There is also a need for NGOs to assist with awareness; WWF Malaysia is spearheading these public awareness workshops.

MOSTE, with the support of WWF Malaysia, has also produced promotional materials on biological diversity to communicate key aspects of the NPBD to policy-makers. The materials include calendars, posters and workshop folders containing excerpts of key issues of the NPBD.

Potential difficulties in implementing the NPBD

While the NPBD is intended to work with existing mechanisms and policies, a strong institutional mechanism and legal framework is needed to ensure effective implementation.

The institutional framework should be established without delay

The National Council on Biological Diversity and the respective state councils need to be established as a matter of priority. Existing institutional mechanisms, such as the National Committee on Biological Diversity, do not have the necessary authority to effectively implement the NPBD. Furthermore, the NCBD is served by a small core staff who also undertake other environmental functions under MOSTE. The National Biodiversity Council should preferably be established by statute and be given the necessary authority to monitor and oversee implementation by the respective federal and state agencies.

State institutional arrangements should be strengthened

As most of the activities will be the responsibility of the state governments, institutional mechanisms at the state level must be supported and strengthened. Except for one or two states, (Sarawak, for example), most state governments do not have a suitable institutional mechanism, much less the necessary staff, to implement the NPBD.

A framework of laws is needed

Laws must be enacted as soon as possible to address issues such as access to biological diversity and biosafety. This will be a real challenge for Malaysia considering the distribution of constitutional authority over natural resources among federal and state governments.

A shift in Malaysia's attitude to development is needed

While federal agencies and state governments may readily agree on the principles and objectives of the NPBD, and be committed to its implementation, conflicts about use of biological resources are bound to arise. As a developing country, Malaysia has viewed economic development and the provision of basic necessities as a matter of priority in resolving such conflicts. The success of the NPBD therefore depends on how much the country's policy-makers are able to change their attitudes about sustainable use and conservation of biological resources.

Lessons learned

Many useful lessons have been learned about effective biodiversity policy formulation and implementation. Malaysia's experience showed that these rules are vital to effective policy formulation.

Consider the practicalities of implementation from the earliest stage

It is often said that a bad policy that can be implemented is better than a perfect policy that cannot. The Malaysian National Policy on Biological Diversity may not be perfect, but a great deal of effort was expended during its formulation on the practical aspects of implementation. The speedy approval of the policy by the government is testimony to this pragmatic approach. Often, implementation issues are given scant attention while a policy is being developed, or worse, are considered only after a policy is adopted.

Ensure the NPBD process is led by local expertise

The way in which the NPBD is developed is extremely important in determining its success. The process of development should encourage the involvement of local experts and other stakeholders, and, more importantly, should be driven by local interested parties. For most Malaysians, biological diversity has an impact on all aspects of daily life; natural resources are the main source of economic wealth. For this reason, it was important for local expertise to guide the whole process of NPBD development. NPBD development is not an overly technical or scientific process. It depends more on recognizing and articulating the needs of the people and communities and ensuring a balanced and proper coordination of all related activities. No calibre of foreign expertise alone could ensure this.

Emphasise the consultative process

In the case of Malaysia, once the initial hurdle — marshalling self-confidence to drive the process — was overcome, the task was found to be relatively simple: listen to and accommodate the interests of various stakeholders. This required an extensive consultative process, which fostered understanding among different interest groups and allowed any conflicts to be resolved quickly. The process was also driven extensively by community groups, mainly NGOs, who by their very nature were able to extend the reach of the consultation to various levels, including the federal and state governments.

Be pragmatic about what can be implemented

It is easy to adopt a “textbook” approach to policy formulation. Yet, all too often, policies remain on paper; either they fail to generate the support necessary for endorsement, or, once approved, they conflict with other policies and meet resistance during implementation. A well-prepared policy should be pragmatic in terms of implementation and have achievable objectives. To ensure that this happens, it is extremely important to have a participatory process driven by local expertise. Policies should not extend over too long a time, although various policies may contain different schedules in terms of their vision, strategies, action plans and programmes. In the case of biodiversity conservation and use, time is of the essence, and technological developments may affect the viability of programmes and projects. Policy should necessarily be limited to a shorter time, and should recognize the need for review from time to time. In Malaysia’s case, there is a recognized need to work towards the year 2020 in line with the national priority of attaining developed nation status.

Work within national capacities

Another aspect of pragmatism is the need to be realistic and to prescribe policy and programmes that are within the limits of the nation's capabilities. Malaysia is confident that its goal of becoming a centre of excellence in tropical biodiversity is achievable based on its experiences in promoting plantation crops such as oil palm and rubber through indigenous efforts. It is also important to build some order of priority into the various objectives, strategies and action plans. Malaysia's NPBD is not a wish list of activities, but a carefully ordered set of actions to meet national needs.

Address sectoral needs and foster and enhance their capacities

Management of biological diversity involves a range of sectors and interest groups. It is important to emphasise at the outset that the process of NPBD formulation is not aimed at revolutionizing the traditional way of doing things. Equally, the notion that the NPBD will be a watchdog over existing sectoral policies must be quickly dispelled. While many policy analysts have lamented the existence of entrenched sectoral policies, the Malaysian NPBD acknowledged the need for and continuing role of these policies. The NPBD should aim for better coordination and fewer inconsistencies or barriers to biodiversity conservation objectives in implementing these policies. The national policy should create a means of continuously receiving feedback to monitor its success in relation to other sectoral policies. The Malaysian NPBD aims to achieve this coordination by building on the roles and policies of existing sectoral institutions, and by encouraging them to build biodiversity considerations into their day-to-day operations and take on an expanded role in its management.

Devolve responsibility for policy implementation

Some argue that a strong central institution is essential for effective implementation and policy coherence. The fact that Malaysia's constitution gives jurisdiction over biological resources to the state governments could be viewed as a huge obstacle to effective biodiversity management. In fact, this arrangement was a distinct advantage. It created an opportunity for decentralized implementation and supervision at the local level, which is essential for effective biodiversity management. With the cooperation of the state governments, and within the overall framework provided by the NPBD, Malaysia possess a unique constitutional advantage in the conservation and sustainable management of biological diversity.

Chronology

June 1992	Malaysia signs the Convention on Biological Diversity The National Committee on Biological Diversity established under the purview of MOSTE
June 1994	Malaysia ratifies the CBD, the 65th country to do so
September 1994	The CBD comes into effect in Malaysia
June 1995–July 1996	Preparation of background documents for the Country Study on Biological Diversity
October 1996	National Consultative Workshop to review the Country Study on Biological Diversity
June 1993–Dec 1996	Task Force drafts the National Policy on Biological Diversity
Jan. 1997–Oct. 1997	Consultation with government agencies and other interest groups on the draft NPBD
October 1997	Malaysian Cabinet endorses the NPBD

Suggested reading

Ministry of Science, Technology and the Environment. 1992. *An Initiative for the Greening of the World*.

Ministry of Science, Technology and the Environment. 1997. *Country Study on Biological Diversity*.

Ministry of Science, Technology and the Environment. 1998. *National Report to the 4th Session of the Conference of Parties to the Convention on Biological Diversity*.

Government of Malaysia. 1998. *National Policy on Biological Diversity*.

Department of Wildlife and National Parks, Malaysia. 1996. *Capacity Building and Strengthening of the Protected Areas System in Peninsular Malaysia*.

Appendix 1. Partial list of legislation relevant to biological diversity

Federal	<p><i>Environmental Quality Act</i> 1974 <i>Fisheries Act</i> 1985 <i>Pesticides Act</i> 1974 <i>Plant Quarantine Act</i> 1976 Customs (Prohibition of Exports; Amendment) (No.4) Order 1993</p>
Peninsular Malaysia	<p><i>Waters Act</i> 1920 Taman Negara (Kelantan) Enactment 1938 Taman Negara (Pahang) Enactment 1939 Taman Negara (Terengganu) Enactment 1939 <i>(The State Parks from these three enactments constitute Taman Negara)</i> <i>Aboriginal People Act</i> 1954 <i>Land Conservation Act</i> 1960 National Land Code 1965 Protection of Wildlife Act 1972 <i>National Parks Act</i> 1980 <i>National Forestry Act</i> 1984</p>
Sabah	<p>Parks Enactment 1984 Forest Enactment 1968 Fauna Conservation Ordinance 1963</p>
Sarawak	<p>National Parks and Nature Reserve Ordinance (Chapter 127; 1958 Edition) Wildlife Protection Ordinance 1990 (Ordinance No. 2 of 1990) Forests Ordinance (Chapter 126) (1958 Edition) Natural Resources and Environment Ordinance (Chapter 84) (1958 Edition) Public Parks and Green Ordinance 1993 (Chapter 3) Sarawak Biodiversity Centre Ordinance 1998</p>

Appendix 2. Strategies for effective management of biological diversity

Effective management of biological diversity, to achieve the objectives of the National Policy on Biological Diversity will be guided by the following 15 goals:

- 1. Improve the scientific knowledge base:** Survey and document the biological diversity in Malaysia, and undertake studies to assess its direct and indirect values, and identify the potential threats to biological diversity loss, and how they may be countered.
- 2. Enhance sustainable utilisation of the components of biological diversity:** Identify and encourage the optimum use of the components of biological diversity, ensuring fair distribution of benefits to the nation and to local communities.
- 3. Develop a centre of excellence in industrial research in tropical biological diversity:** Establish Malaysia as a centre of excellence in industrial research in tropical biological diversity.
- 4. Strengthen the institutional framework for biological diversity management:** Establish and reinforce the mechanisms for planning, administration and management of biological diversity.
- 5. Strengthen and integrate conservation programmes:** Increase efforts to strengthen and integrate conservation programmes.
- 6. Integrate biological diversity considerations into sectoral planning strategies:** Ensure that all major sectoral planning and development activities incorporate considerations of biological diversity management.
- 7. Enhance skill, capabilities and competence:** Produce a pool of trained, informed and committed manpower in the field of biological diversity.
- 8. Encourage private sector participation:** Promote private sector participation in biological diversity conservation, exploration and sustainable utilisation.
- 9. Review legislation to reflect biological diversity needs:** Review and update existing legislation to reflect biological diversity needs and introduce new legislation where appropriate.
- 10. Minimize the impact of human activities on biological diversity:** Take mitigating measures to reduce the adverse effects of human activities on biological diversity.

- 11. Develop policies, regulations, laws and capacity-building on biosafety:** Introduce measures for the incorporation of biosafety principles and concerns, especially in relation to genetic engineering, and the importation, creation and release of genetically modified organisms.
- 12. Enhance institutional and public awareness:** Promote and encourage the understanding and participation of the public and institutions for the effective conservation and protection of biological diversity.
- 13. Promote international cooperation and collaboration:** Promote international cooperation and collaboration in order to enhance national efforts in biological diversity conservation and management.
- 14. Exchange of information:** Promote and encourage the exchange of information on biological diversity at local and international levels.
- 15. Establish funding mechanisms:** Identify and establish appropriate funding mechanisms for biological diversity conservation and management.

