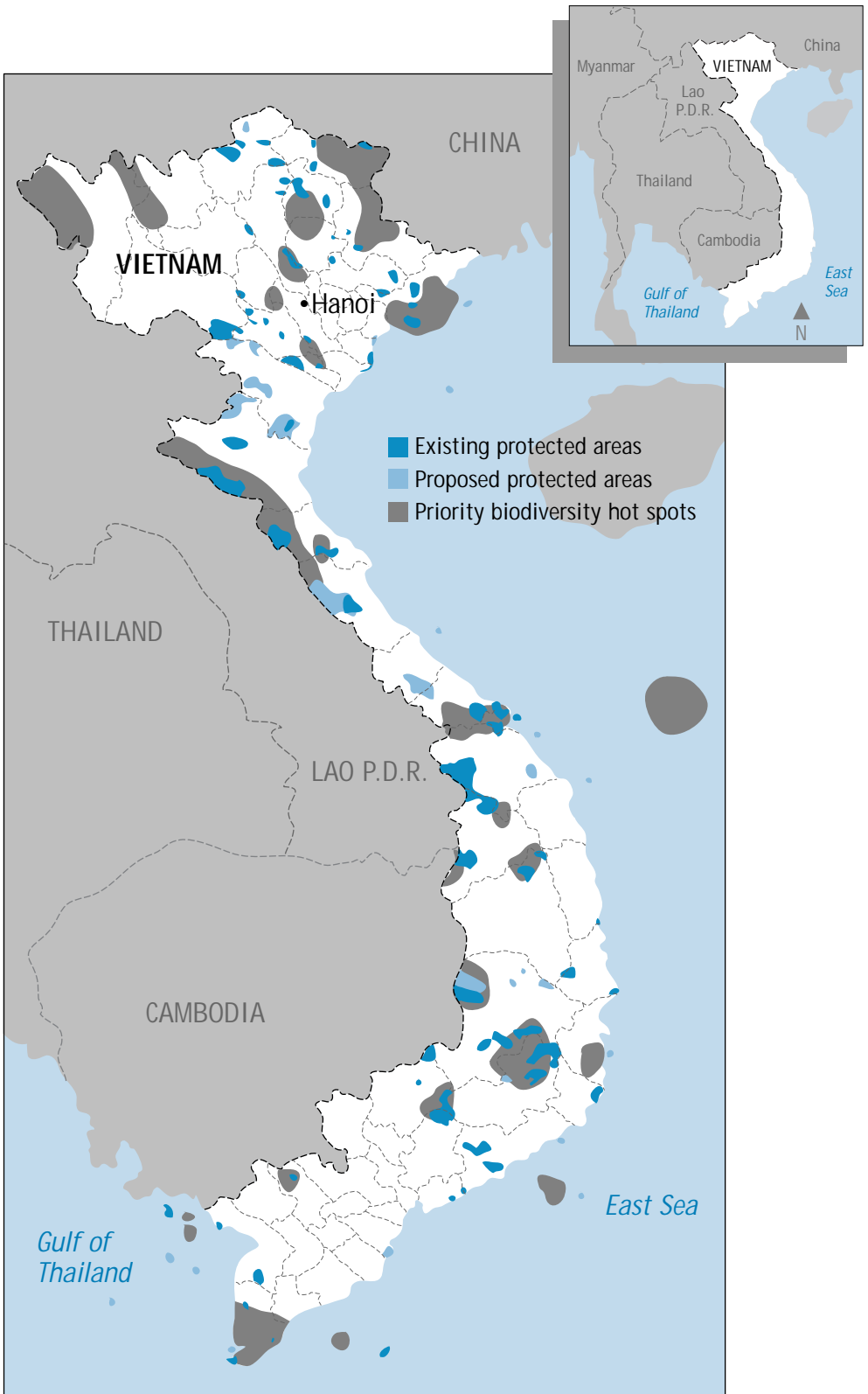


Chapter 11. Vietnam

Map of Vietnam	288
Summary	289
Key issues	289
Introduction	290
Background	292
Policy foundations for biodiversity conservation	292
Box 1. NCS goals	293
Box 2. NPESD goals	293
Development of the BAP	294
BAP: Scope and objectives	295
Policy and programs	296
Management and conservation field programs	296
Complementary actions	296
Biodiversity regions and hot spots	297
Relationship to development planning	297
Box 3. Prime Ministerial Decision No. 845/TTg	298
BAP implementation	300
MOSTE	301
MARD	301
NCST	302
MOF	302
Finance	302
BAP review	303
Future action	305
Lessons learned	305
BAP preparation	305
Coordination	305
Capacity-building	306
Review and monitoring	306
Recommendations	306
Chronology	308
References	309
Endnotes	309
Appendix 1. Priorities for enhancing NBSAP implementation	310



Vietnam

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SUMMARY

Vietnam's commitment to conserve and protect biodiversity dates back well before the government ratified the Convention on Biological Diversity (CBD) in 1994 and adopted a Biodiversity Action Plan (BAP) in 1995. The first national park was declared in 1962; this, along with the National Conservation Strategy (1985) and the National Plan for Environment and Sustainable Development (1991), were the foundations for the BAP.

Rapid development and a growing population largely dependent on natural resources are placing increasing pressure on biodiversity. Emphasis is given to maximising production, not to the sustainable use or management of natural systems. Over the past 50 years, almost half of the forests have been lost. The diversity of plant and animal species is also diminishing.

An institutional and legislative framework is slowly being developed to safeguard natural resources but there is little capacity to enforce laws. Coordination and cross-sector links are lacking. Although the BAP advocates integrating biodiversity into economic development, most sectors do not do so (these points, and others, were raised in a 1998 workshop to review the BAP).

An impressive number of priority projects found in the BAP have been completed or are being implemented. The BAP has succeeded in putting biodiversity on the national agenda and heightening awareness of the values of biodiversity resources. The BAP must now be updated and its implementation strengthened within the umbrella of the new National Strategy for Environmental Protection 2001-2010.

Key issues

The population is expected to double over the next 50 years. The large rural population (78 per cent of the total) is directly dependent on terrestrial, wetland, marine and coastal resources. The pressure on these systems will intensify unless the productive capacity of existing cultivated areas is increased or income is generated from activities outside agriculture.

Natural forests are diminishing due to logging and agricultural encroachment. Terrestrial, wetland and marine ecosystems are being severely degraded by industrial developments; an increasing number of plant and animal species are under threat due to uncontrolled wildlife trade, alien invasive species, and unsustainable harvesting of non-timber forest products (NTFPs).

Existing legislative and institutional frameworks are weak and the roles and responsibilities of line ministries involved in the conservation of biodiversity have not yet been clearly defined.

There is an overall lack of capacity and skilled personnel to carry out the variety of functions required to manage and conserve biodiversity at both the policy and field level.

There are no appropriate mechanisms to effectively coordinate biodiversity conservation activities, particularly between line ministries, and between government and international conservation organisations and donors.

Introduction

Vietnam is situated on the Indochina Peninsula. It has a land area of 330,541 sq. km and extends for 3260 km along the southeast coast of Asia, between latitudes 8° 30'N and 23°N. The country is S-shaped, with wide deltas in the south (Mekong River) and the north (Red River) joined by a narrow coastal and mountainous central region that tapers to only 50 km wide. Much of the country is hilly or mountainous with the highest peak over 3000 m above sea level. Most rivers drain directly east into the South China Sea but the western parts of the central highlands drain west into the Mekong Basin of Cambodia.

The economy is based on agriculture and the processing of primary products. The average per capita income is US\$360 (\$US1= Vietnam Dong 14937) per annum, making Vietnam one of the world's poorest countries (World Bank, 1999). It is one of the most densely populated countries in Asia, with close to 80 million people, most of whom live in rural areas and depend on natural resources. The population growth rate is high, around 2 per cent per annum, so the pressure on natural systems will intensify unless the productive capacity of existing cultivated areas is increased or income is generated from activities other than agriculture.

Vietnam has a number of key ecosystems, including a variety of marine and coastal habitats, inland lakes and rivers, tropical rainforests, monsoon savannahs, limestone karst, subalpine scrubland and two important river deltas which provide extensive wetland habitats for a wide range of species.

The country retains an extensive range of biological diversity. It is recognised as one of the biodiversity hot spots of the region and is home to approximately 275 mammal species, 180 reptile species, 80 amphibian species, 840 bird species and 2,740 fish species. There are approximately 12,000 plant species, 40 per cent of which are believed to be endemic¹.

The richest areas of biodiversity in Vietnam are the Annamite range of Truong Son (shared with Lao PDR) and the central highlands. Vietnam's global biodiversity significance was highlighted by the recent discovery in these areas of four large mammal species: Saola (*Pseudoryx nghetinhensis*), Large-antlered Muntjac (*Megamuntiacus vuquangensis*), Annamite Muntjac (*Muntiacus truongsonensis*), and Khting Vor (*Pseudonovibos spiralis*). The northeast and northwest of the country are also considered important areas for biodiversity

There are no reliable figures on the number of endemic species in Vietnam. This is due to new species being discovered and an absence of accurate classification. There is also disagreement about the geographic range of certain plants and animals and whether some specimens are species or sub-species.

An estimated 28 per cent of mammals, 10 per cent of birds and 21 per cent of reptiles and land amphibians face extinction. Some species are recently extinct in Vietnam, such as the Tapir (*Tapirus indicus*) and the Sumatran rhinoceros (*Dicerorhinus sumatraensis*). The key threats to biodiversity in Vietnam include agricultural encroachment, wildlife trade, hunting/fishing, NTFP collection, logging and subsequent erosion, alien invasive species, forest fires and pollution.

The rapid rate of decline in many species of plants and animals prompted the government to commission the preparation of Red Data Books. Work began in the early 1990s and culminated in the publication of the Red Data Book on animals in 1992 and on plants in 1996. According to these sources there are 356 threatened plant and 365 threatened animal species (this information is being revised and updated).

Species loss and habitat loss are closely linked. The rate of forest clearing and degradation is a particular concern. Forest cover was severely degraded by defoliants in the Vietnam-United States war; logging, encroachment, and forest fire continue to reduce forest area. In 1994 forest cover was estimated at 14 million hectares. In 1997 this figure had dropped to about 9 million hectares or 28 per cent of the total land area including plantation forests.

Forests ecosystems and other important habitats and species are being safeguarded through a national system of 101 protected areas. These are divided into four categories: 11 National Parks; 52 Nature Reserves; 16 Endemic Species Sites and 22 Historic/Cultural and Environmental Sites. The system is evolving and the number of sites is changing as new protected areas are added and others are degazetted. The system does not adequately represent the biodiversity of the country, but it is expanding. The government has set a target of protecting two million hectares or six per cent of the country.

Background

The concept of conservation is not new in Vietnam. In 1959 President Ho Chi Minh launched a tree planting campaign and in 1962 the first national park, Cuc Phuong, was established. A year later the President warned: "The forest is gold. If we know how to conserve and use it well, it will be very precious. Destruction of the forests will lead to serious effects to both life and productivity". This statement is still used as a guiding principle by the Forest Protection Department within the Ministry of Agriculture and Rural Development.

In 1981, Decision 37/NQTU of the Politburo of the Vietnam Communist Party introduced guiding principles for the protection of the environment in urban and rural areas. The decision was a forerunner to a range of other environmental legislation and policies.

In the mid-1980s the Government began a process of reform known as "Doi Moi" or renovation to move the country from a centrally controlled socialist economy to one that is more market driven. This process forced the government to give more attention to balancing rapid development with the maintenance of the natural resource base.

Policy foundations for biodiversity conservation

The main impetus for policy development in conservation dates back to 1985, when the draft National Conservation Strategy (NCS) was prepared. Although never formally adopted by government, the NCS has been an influential policy framework and many of its recommendations have been implemented. Proposed priority actions of the NCS include the following:

- reducing population growth to zero;
- launching a massive reforestation program to restore the hydrological balance of terrestrial ecosystems; and

- establishing a National Board of Environmental Coordination at the ministerial level with wide cross-sector powers to formulate and enforce new environmental legislation and regulations.

Box 1. NCS goals

The goals of the NCS are as follows:

- to satisfy the basic material, spiritual and cultural needs of all the people of Vietnam, (both present and future generations) through the wise management of natural resources;
- to define and establish policies, plans, organisations and action, whereby the sustainability of natural resource use will be fully integrated with all aspects of the country's social and economic development. The essence of the strategy is to analyse trends as well as current issues so as to better anticipate problems and to plan accordingly.

Other policy documents followed the NCS, including the ten-year National Plan for Environment and Sustainable Development (NPESD) in 1991, formulated under the overall guidance of the State Committee for Sciences (now the Ministry of Science, Technology and Environment) to further address the issues raised in the NCS. The NPESD was adopted as government policy and, along with the BAP, remained the principal umbrella strategy for the environment sector throughout the 1990s. A new ten-year environment strategy for 2001-2010 has been prepared and is awaiting government endorsement.

Box 2. NPESD goals

The goals of the NPESD are as follows:

- to provide for the gradual development of a comprehensive framework for national and sub-national environmental planning and management; and
- to lead to specific actions that are required in the short term to address priority problems at their very roots.

In 1991, the Ministry of Forestry (now known as the Ministry of Agriculture and Rural Development or MARD) published a Tropical Forestry Action Program (TFAP) aimed at guiding the management and sustainable use of Vietnam's forests. TFAP preparation was criticised as being too heavily driven by international consultants and the program was never formally adopted as policy by government although it is widely used as a reference document.

In 1994, Vietnam began preparation of a National Environment Action Plan and the Biodiversity Action Plan. The NEAP, completed in 1995, was formulated in anticipation of World Bank requirements but not adopted by government. The BAP was a response to international obligations under the Biodiversity Convention; it became policy in 1995.

In 1997, MOSTE (with support from IUCN) attempted to initiate the development of a national wetland strategy. A draft was prepared but set aside until further research was completed. BirdLife International, in collaboration with IEBR, carried out some critical work in identifying important wetlands sites in the Red River and Mekong Deltas. In 1999, IUCN began a project to help establish a national wetland program. The culmination of this work was a government paper for planning wetland conservation, which will lead into a national wetland strategy.

Vietnam is one of the few countries in the region to have ratified all the key international conventions related to biodiversity. The World Heritage Convention was ratified in 1987 and seven years later Ha Long Bay was listed as Vietnam's first natural World Heritage site. The Phong Nha Ke Bang limestone complex in Quang Binh province is being considered as another heritage site because of its unique biodiversity. In 1989, Vietnam ratified the Ramsar Convention, and Xuan Thuy in the province of Nam Dinh was nominated as a wetland of international importance. A number of other sites are being considered for Ramsar designation, the most likely to be listed being the Plain of Reeds in the Mekong Delta province of Dong Thap.

In 1994, the Law on Environmental Protection, recommended in the NPESD, came into force. It created a legal framework for environmental assessment, pollution control and environmental planning. In the same year, Vietnam ratified the Convention on Biological Diversity (CBD) and the Convention on International Trade of Endangered Species (CITES).

In the past decades the government of Vietnam has introduced more than 30 instructions, decrees and decisions related to the conservation of biodiversity. These legal initiatives included the banning of elephant hunting, the management and protection of endemic plants and animals and a total ban on logging of natural forests. Many decisions related to the establishment of national parks and nature reserves.

Development of the BAP

Shortly after the NPESD was approved in 1991, the Ministry of Forestry and the State Committee of Science submitted a proposal through UNDP to the

Global Environment Facility (GEF) for major support for the protected areas system and the preparation of a Biodiversity Action Plan (BAP) for Vietnam. The BAP was formulated with technical support from IUCN as a relatively minor (only US\$80,000) part of the total US\$3 million project. The project was implemented by WWF.

Plan preparation began in February 1993 and continued for ten months. The process involved close consultation with government representatives at all levels and included inputs from Vietnamese and international scientists and village people whose lives depend on the extraction and use of natural resources. Much of the information used to develop the BAP was compiled from interviews and consultations with authorities and communities in ten biodiversity rich provinces. In addition, some 40 experts from diverse backgrounds researched the status of biodiversity in Vietnam and identified priorities for action.

Workshops were convened to collate the comments and invite suggestions on the draft BAP from in-country scientists. The revised draft was then circulated to relevant government organisations and NGOs for comment. The BAP went through consultation on four drafts before government approved the final version in December 1995. Official approval took about a year once the BAP was submitted to government.

BAP: Scope and objectives

The BAP builds on the National Conservation Strategy and the National Plan for Environment and Sustainable Development, adding important information and a more detailed and specific program of action. The BAP encompasses the following issues:

- areas of conservation such as marine and coastal regions, wetlands and agriculture;
- the role of people, communities and NGOs in managing Vietnam's natural resources;
- the long-term economic values of conservation, including a focus on rare animals and threatened landscapes;
- the role of local government in decision-making; and
- international responsibilities for regarding managing and conserving natural heritage.

The long-term objective of the BAP is to protect the rich and unique biodiversity resources within the sustainable development framework of Vietnam.

The immediate objectives of the BAP are as follows:

- to protect the country's endemic ecosystems and vulnerable ecosystems in danger of reduction or destruction through human activities;
- to protect those biodiversity components which are subject to over-exploitation or disregard;
- to identify and promote the utilisation values of all biodiversity components on the basis of sustainable development of natural resources in order to serve the country's economic targets.

The Biodiversity Action Plan is divided into five parts: the status of biodiversity conservation in Vietnam; recommendations for biodiversity conservation policies and programs; recommended changes in the management of protected areas; complementary actions for biodiversity conservation; and priority project profiles.

Almost 60 priority project profiles are included and are divided into three strategic areas: policy and programs; management and conservation field programs; and complementary actions.

Policy and programs

The primary aim of this strategic area is to strengthen biodiversity conservation within government agencies and through regulations. There needs to be more agencies and officials with biodiversity conservation as an essential part of their day-to-day work, and greater use of the traditional skills and knowledge base of local communities. The scope of biodiversity conservation programs must be expanded to take in wetland and marine systems and to link national programs to those of neighbouring countries.

Management and conservation field programs

Expanding the network of protected areas is the key method of maintaining biodiversity. Management of protected areas is to be enhanced by the direct involvement of rural communities in biodiversity conservation, through participatory approaches and sustainable resource use. Other important initiatives include fostering of natural regeneration of important habitats and developing the capacity of conservation professionals, decision-makers and the local communities through training, creating awareness and baseline research.

Complementary actions

This strategic area is designed to fulfil the broader biodiversity conservation agenda proposed in the BAP. The focus is on ex-situ conservation for the

preservation of species and testing traditional approaches to the maintenance and preservation of economically important biodiversity. Database development and habitat monitoring are also essential for evaluating national biodiversity status.

The priority projects identified in the BAP are divided into three phases. Phase I was to be carried out over the first two to three years after the BAP's adoption. Phase II was developed as a consolidation phase and was expected to last an additional two to three years, with Phase III expanding earlier initiatives to other parts of the country and to those lower priority concerns not addressed in the first two phases.

Biodiversity regions and hot spots

The BAP also includes a benchmark of consolidated information on the status of biodiversity. As part of the BAP development process a map was produced identifying the country's biodiversity hot spots. This was done to help target specific areas requiring priority conservation attention.

In 1999 another map was produced by IUCN in collaboration with IEBC, dividing the country into terrestrial, coastal and marine biodiversity regions. High-priority regions were then identified based on biodiversity wealth, levels of endemism, levels of threat to biodiversity resources and the feasibility of conservation action. The map was developed as part of a study designed to analyse the impact of official development aid to the environment sector in Vietnam and was intended to help set priorities and target conservation needs.

The IUCN map guides investment by government and donors in biodiversity conservation in terms of broad geographic priorities. This map, coupled with one showing biodiversity hot spots, provides a means of setting priorities in biodiversity conservation.

Relationship to development planning

Vietnam is developing quickly. The NCS, NPESD, NEAP and BAP all recognise the economic value of biodiversity in a country dependent on the exploitation of natural resources. The documents make explicit the need to maintain genetic diversity for the improvement and sustainability of agricultural, forestry and fishery production, as well as for scientific progress. The operational links between these "environment" policies and economic planning and development are poorly defined, however, and not adequately reinforced through legislation and budget allocation.

Decision No. 845/TTg was signed by the Prime Minister in 1995. It outlines BAP implementation details and responsibilities of relevant line ministries and local authorities.

Box 3. Prime Ministerial Decision No. 845/TTg

1. Implementation arrangements

Activities must be structured as projects, with detailed objectives, contents, location, scale, duration and outputs. Their viability must be assessed before funding decisions are made. Mid-term and final assessments are necessary steps in the implementation process.

2. Responsibility of central organisations

The Ministry of Science, Technology and Environment (MOSTE) is the main organisation in BAP implementation. MOSTE is responsible for liaison with ministries, sectors and local agencies to carry out day-to-day tasks. MOSTE submits an annual report to the Prime Minister on BAP implementation.

The Ministry of Planning and Investment (MPI), using domestic sources and foreign aid, and following the main objectives of the BAP in close collaboration with MOSTE, has the responsibility for developing annual implementation plans for each BAP objective for related and local agencies.

The Ministry of Agriculture and Rural Development (MARD), the Ministry of Fisheries and the National Centre for Natural Science and Technology are the major implementing organisations. They work closely with MOSTE and MPI on annual implementation plans and inform MOSTE about the outputs of their components. MOSTE collects this information and submits it in its annual report to the Prime Minister.

The Ministry of Education and Training, the Ministry of Labour, War Invalids and Social Affairs, The Ministry of Health and the State Committee for Ethnic Affairs and Mountainous Regions must pay close attention to the related objectives and recommendations of the BAP which are within their social-economic programs and discuss any related issues with MOSTE and MPI.

Responsibility of Local Authorities

The People's Committees of the provinces and cities are responsible for implementing the BAP within their area. The People's Committees of the provinces and cities will make their own plans and discuss them with MOSTE, MPI and the concerned ministries, informing MOSTE annually about the outputs of their activities.

The government was intent on integrating the BAP into overall development planning. One of the key aims of the decision was to involve the Ministry of Planning and Investment in BAP implementation as a way of ensuring the integration of biodiversity into national, sector and provincial socio-economic plans. Such integration has not been systematic or convincing, however. Although BAP preparation included broad stakeholder involvement, international consultants and the conservation community led the process. MPI and important development sectors, such as tourism, construction, industry, education and business, were limited to participation in a few workshops and providing comments on the final draft BAP document. Consequently, the main players shaping development and the use of biodiversity resources had no sense of ownership over the BAP. They were not committed to implementing it and in any case had no practical understanding of how to apply it through their own operations. No technical guidance was provided to support sectors and provinces to meet their BAP responsibilities.

The problem of integration extends beyond limited involvement in the BAP development process. A lack of sector capacity and trained personnel means that biodiversity issues don't figure highly in their day-to-day operations. This is more serious at provincial and district levels, where opportunities for training are limited. The necessary training and technical support was not built into follow-up programs.

The BAP encourages relevant sectors to integrate biodiversity conservation into their planning processes, but provides no direction on how this is to be done. The BAP does not include an operational plan for integration. There are no guidelines on the mechanisms and tools that might be required and no consideration of the resources involved. At no stage have specific state budget provisions been made to promote integration. The Ministry of Education and Training, for example, has attempted to build biodiversity into school curricula but lacks an understanding of how to do this effectively and without continued support from the state. Results have not been satisfactory.

Inadequate institutional arrangements have also hampered integration of biodiversity into overall development planning. When the BAP was approved, very few line ministries had units dealing with environmental or biodiversity issues. This is slowly changing. MPI, for example, now has an environment unit within its Department of Science, Education and Environment. Line ministries are following suit; this will gradually enhance integration.

MARD is perhaps the only example of the BAP being incorporated into planning processes. Important links have been made between BAP and the major

government program Re-greening and Restoration of Bare Hills, for instance. Protected areas, wildlife trade, agricultural diversity and inventories of plants and animals are all priorities in the BAP and are some of MARD's main responsibilities.

Other agencies also have built-in biodiversity functions. The National Centre for Natural Science and Technology (NCST), for example, has ministerial status and houses 20 research institutes, some of which were involved in developing the BAP as well as in implementing it. The Institute for Ecology and Biological Resources was particularly influential in shaping the BAP and in supporting biodiversity conservation activities undertaken by national organisations.

There is little evidence of government agencies integrating the BAP into their planning and operations in any systematic way, however, despite the high-level political backing it received from government on its approval.

BAP implementation

Although integration is patchy, the BAP has provided the catalyst for an impressive number of biodiversity conservation activities. These are carried out primarily by MARD and MOSTE and their provincial counterparts. More than half of the priority projects listed in the BAP have been completed or are in process. In 1997, MOSTE established the Nature Conservation Division (NCD) to coordinate BAP implementation and be the focal point for the CBD. The NCD is the key link with sectors, and encourages them to use the BAP as a guide in mitigating the impacts of development on biodiversity. Coordination among the sectors remains weak, however; in many fields, such as coastal and marine issues, BAP implementation has been hampered by a lack of clarity in institutionalised arrangements and responsibilities.

Since being approved in 1995, the BAP has been used as a guide by national and international organisations to select and implement biodiversity conservation projects. Funds, either domestic or external, are usually not provided unless the activity can be demonstrated to be in line with the BAP or at least consistent with the CBD, which provided an umbrella framework for BAP implementation. All projects listed in the BAP were designed to meet Vietnam's obligations under the CBD.

MOSTE, MARD, NCST and the Ministry of Fisheries (MOF) have been the key players in BAP implementation. The following section describes some of their achievements.

MOSTE

Although MOSTE coordinates BAP implementation, its administrative responsibilities are not clearly understood. The confusion was highlighted recently when the NCD tried to coordinate formulation of the Regulation on the Management, Protection and Development of Protected Areas. The process was driven by MARD, along with MOF and various research institutions under the NCST. Conflicting views arose as to whether wetlands and marine and coastal protected areas should be included and who, in fact, was responsible for such areas. MARD took the view that, since it was responsible for terrestrial parks, all protected areas should fall under its jurisdiction. MOF, on the other hand, considered that conservation in coastal and marine areas should be its responsibility. As a coordinating body with little status, the NCD under MOSTE does not have the authority to resolve such institutional issues. As a consequence the development of regulations on protected areas management has been delayed.

Other coordination efforts have been more successful, i.e. the workshops to coordinate Vietnam–Lao PDR collaboration on transboundary biodiversity resources and the current revision of the Red Data Books for Vietnam. The NCD successfully mobilised a number of institutions to update the Vietnam Red Books and has managed to secure state funds for this purpose.

Other divisions of MOSTE are also involved in BAP implementation. NEA's Database Division is slowly building a centralised biodiversity data information system, and the Information Division is working to raise awareness through the publication of the monthly magazine *Green Vietnam*. The policy division coordinated the development of the new National Strategy for Environmental Protection for 2001–2010 and an Action Plan for 2001–2005.

MARD

MARD is an important organisation in biodiversity management. Its legislative initiatives include directives on the conservation of valuable agricultural species and control of illegal trade in wild flora and fauna, as well as a ban on logging in natural forests. MARD is responsible for managing the national terrestrial protected areas system and has established management boards for ten national parks since the BAP was approved. The ministry has improved skills in protected area management through training courses on biodiversity conservation and forest management for 900 rangers (about ten per cent of the country's protected area field staff). Another important initiative was the introduction of buffer zones around protected areas to protect natural resources from overuse by surrounding populations².

MARD committed the government to expanding the protected area system from 1.3 million to 2 million hectares (about 6 per cent of total land area) with the aim of protecting a representative sample of the country's biodiversity resources. The Forest Inventory and Planning Institute (FIPI) has been working with BirdLife International on ways to expand the protected areas system so that it covers all natural forest types and highlights globally threatened species. Their 1999 report identifies 25 areas that should be added to the existing system.

MARD is also responsible for implementing the 1998 Prime Ministerial Decision to rehabilitate and establish five million hectares of forest. To date close to 400,000 hectares of land has been reforested.

NCST

NCST has been involved in BAP implementation primarily through the Institute of Ecology and Biological Resources, although a number of other institutes have contributed as well. The NCST has been involved in the publication and ongoing revision of the Red Data Books for Vietnam and in technical assistance for the identification of new species. It has assessed the biodiversity status in selected protected areas and helped set the scientific rationale for the creation of marine protected areas. The NCST is also recognised for its work on biological extracts for medical purposes.

MOF

Aquatic biodiversity has received considerably less attention than terrestrial biodiversity. This being said, MOF has undertaken some noteworthy activities, including a survey and assessment of marine biodiversity in the Spratley Islands, a fish release program to regenerate fishery resources, and training courses on marine biodiversity conservation. Ongoing projects include the conservation of sea turtles and the rehabilitation of fish species under threat of extinction.

Finance

Government departments and agencies who wish to draw from the state budget for biodiversity conservation activities must submit funding requests to their respective ministries each year. If the requests are considered to be high-priority and within the mandate of the ministry in question, the activity is incorporated into the annual plan of operation. Funds are allocated to each ministry based on their annual plans of operation.

The NEA estimates that, between 1995 and 1998, the state budget provided US\$210 million for biodiversity conservation at the national, provincial and district levels. By national standards, this is a very significant investment. Money from bilateral and multinational donors has also contributed significantly to BAP implementation.

BAP review

It wasn't until the BAP was reviewed in October 1998 that a clear picture emerged of who had been doing what and where in biodiversity conservation. The review provided an overview of both the major achievements and the gaps in plan implementation.

The idea of reviewing the BAP stemmed from discussions between the NCD and IUCN in late 1997 and early 1998. Sida support, implemented through NEA/MOSTE, provided core funds for the review, with additional support from WWF. The aim was to do the following:

- review performance by the key ministries responsible for implementing the BAP and, in so doing, review the BAP as a guiding policy document for biodiversity conservation;
- identify gaps in the plan; and,
- provide recommendations for future action.

The review workshop was widely attended by government agencies and institutions and by national and international organisations involved in biodiversity conservation activities. Delegates from Sida, DANIDA, SDC, NEDA, UNDP and the World Bank represented the donor community.

A number of presentations were made on the status of BAP implementation and working sessions were organised to identify areas not adequately addressed by the BAP and to develop recommendations for future action.

Presentations from key ministries highlighted the need to define institutional roles more clearly and to improve coordination among government agencies. The lack of equipment, training and administrative capacity were also identified as constraints to effective implementation, as was the lack of a comprehensive policy and regulatory framework.

Information contained in the BAP is outdated and needs revision. Many of the priority projects listed in the BAP have either been implemented, are underway or are scheduled to start. There are, however, a number of key priority projects that have not been addressed, such as a review of institu-

tional arrangements for biodiversity conservation. Others include the development of provincial BAPs based on ecoregions; marine pollution monitoring and control; investigation of the status of offshore fisheries; forest product border controls; and the management, protection and conservation of various nature reserves and ecosystems.

One of the concerns raised at the workshop was the need to evaluate the projects implemented so far. It was recommended that a steering committee be established to oversee and provide support in coordinating and appraisal of BAP projects, and that a monitoring and evaluation (M&E) framework be developed. The committee and the M&E framework would help in the design and implementation of a new portfolio of priority projects.

Workshop participants also identified the following areas for greater attention: education and awareness; watershed management; freshwater and marine biodiversity; multiple use conservation areas; collaborative management; the impacts of industry on biodiversity; and wildlife trade. It was agreed that a number of new and emerging issues needed to be added to the BAP, including access to genetic resources and benefit sharing, the impact of tourism on biodiversity, the impact of land tenure on biodiversity, the incorporation of biodiversity concerns into environmental impact assessment, the effects of economic and other incentives on biodiversity, ecosystem management approaches and alien invasive species.

The main conclusion of the workshop participants was that the BAP should be revised and updated. Specific suggestions included the need for colour maps, improved layout and a better referencing system. Other more fundamental suggestions included the following:

- the inclusion of a chapter on implementation and coordination arrangements;
- a more action-oriented approach with attention to community participation and capacity building;
- further incorporation of biodiversity into sectoral programs and policies; and
- the development of a “popular version” of the BAP so that it can be used as an educational tool and be accessible to a wider range of people.

The Director General of the NEA stressed the need for improved funding mechanisms and highlighted the importance of increased cooperation to make the BAP a stronger policy framework guiding biodiversity conservation in economic development. He pointed to the successes of the BAP, including

increased public awareness of biodiversity issues and initial integration of biodiversity conservation into environmental protection policy of sectors and localities. He also drew attention to the lack of direction and coordination among the various line ministries and the inefficiency in BAP implementation caused by the lack of clarity about MOSTE/NEA's role.

Future action

In March 1999, NEA commissioned a team of national and international experts to build on the BAP review workshop and enhance the implementation of Vietnam's BAP by defining high-priority needs. A number of meetings were conducted involving selected individuals from government and international organisations. Some of the urgent needs are summarised in Appendix 1.

Lessons learned

Some of the more important lessons to be learned from the preparation, implementation and review of the BAP in Vietnam relate to who participates, who coordinates and monitors, and the capacity required.

BAP preparation

Time was a severe constraint in preparing the BAP; research took less than ten months. This prevented a comprehensive research framework for BAP preparation from being articulated and resulted in some of the gaps now found in the plan. Research involved a number of national scientists but international consultants drafted the document. The environment ministry and NEA were newly established and not all aspects of the process were government driven.

Participation was limited as well, and groups needed to implement the plan were not involved from the outset. Selected provincial authorities and a number of line ministries were involved but other important sectors were poorly represented. Few sectors were made aware of the BAP's relevance to their operations and links were not established with the most important agencies to develop actions they could take within the BAP framework.

Coordination

BAP implementation has suffered from the lack of an appropriate coordination mechanism. There has been little dialogue or exchange of information between sectors. The NCD has tried to coordinate biodiversity conservation activities but the office is small and staff do not have enough training. The division was not established prior to BAP approval and did not have the opportunity to establish its credibility and authority with key players.

Capacity-building

One of the main lessons to come out of the BAP process is that there is a great need for appropriate training initiatives to build the capacity of those sectors that will implement the BAP. The BAP was useful as a guide to setting priorities for biodiversity conservation, but ministries such as MPI did not have the capacity to undertake the tasks required of them.

Review and monitoring

The implementation of the BAP has not benefited from ongoing monitoring; further, no institution has been appointed and trained to carry out this function. The BAP review of 1998 demonstrated the values of a monitoring and evaluation process. It brings about a greater understanding of roles and responsibilities, identifies areas of neglect, confirms priorities, and enhances capacities of those involved. Most important, it contributes to the integration between biodiversity conservation and the general development framework.

Regular reviews and ongoing monitoring are now seen as an integral part of BAP implementation. The NCD has suggested that reviews take place every three to five years and that monitoring methodologies be developed for ongoing assessment of implementation.

Recommendations

The following recommendations are intended to provide an insight into the range of issues that need to be considered in the process of preparing, implementing and reviewing a BAP. They highlight some of the issues relevant to the BAP process in Vietnam.

A coordination mechanism should be defined, with input from each of the sectors involved in implementation. This could include the establishment of biodiversity units in relevant institutions and a high-level steering committee and technical working groups responsible for coordination and monitoring of BAP implementation. Coordination could be further enhanced by elaborating the implementation details provided in the BAP into comprehensive operational plans for each sector.

Research requirements must be determined. This should be done collaboratively and agreed upon before any research begins. Mechanisms should be defined to ensure operational links between research teams and their institutions. Adequate and accurate information is critical to defining a balanced action plan and setting priorities.

All costs should be carefully considered and calculated in the design phase and should cover such aspects as stakeholder consultation, technical inputs, review of drafts, editing, translation and printing. The costs of continued coordination, monitoring and capacity-building in implementation should also be accounted for in the design phase.

Adequate time must be allocated to BAP preparation and allowances made for delays and the need to respond to unexpected issues.

The main implementation organisations should be identified and involved in BAP preparation to ensure that it is integrated into development planning. Sectors that need to be involved include tourism, industry, the armed forces and construction. The donor community, voluntary organisations and the private sector also have a key role to play and should be involved in all stages of the process. The priority is to involve those who will have the greatest influence and the largest role in implementation.

Institutional roles must be clearly defined. Detailed terms of reference for key sectors involved in implementation should be included in the action plan. These should be developed with the sectors concerned. Detailed operational plans for each sector must be developed as a first step in the implementation phase.

BAP development should be linked to other environmental conventions such as RAMSAR and CITES and to other national environment strategies and plans.

Transboundary issues need to be carefully considered during the preparation of the BAP, including consultation with neighbouring countries.

BAP preparation must be government driven. A government institution needs to take the lead in BAP preparation, implementation, coordination and review. This organisation needs to be supported by a high-level cross sectoral committee which can ensure effective cooperation and participation of key agencies and bring political commitment.

Line ministries should establish environment units responsible for integrating biodiversity into socio-economic plans and day-to-day operations.

Training and capacity-building needs should be assessed and addressed. A training needs assessment should be carried out for key ministries responsible for BAP implementation (such as MOSTE, MARD, MOF, NCST and MPI).

A monitoring framework and methodology should be developed to systematically assess the progress and impact of BAP implementation.

Alternate funding mechanisms need to be considered to minimise dependence on traditional bilateral and multilateral assistance. Identification of funding could be included as a chapter in the BAP and should consider issues such as national trust funds and economic incentives which promote biodiversity conservation. The impact of perverse economic incentives should be considered, as well as ways that such incentives can be mitigated.

Chronology

1959	Tree planting campaign launched by President Ho Chi Minh 1962 Cuc Phuong established as first National Park
1981	Ministerial Decision No. 37/NQTU: Guiding principles for the protection of the environment in both urban and rural areas
1985	National Conservation Strategy (draft)
1986	Ministerial Decision No. 194/CT proposing the establishment of a PA system
1987	World Heritage Convention ratified
1989	Ramsar Convention ratified
1991	National Plan for Environment and Sustainable Development Tropical Forestry Action Plan
1992	Red Data Book on animals published
1994	Law on Environmental Protection promulgated CBD and CITES ratified
1995	National Environmental Action Plan BAP Approval
1996	Red Data Book on plants published
1998	BAP Review
1999-2000	National Strategy for Environment Protection 2001-2010 and five-year action plan prepared

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Endnotes

1. These figures, which are taken from the BAP (1995), are based on research carried out before 1994.
2. A recent study undertaken by IUCN and FPD found that there is still considerable institutional confusion about many aspects of buffer zone management in Vietnam (Gilmour and San, 1999).

Appendix 1. Priorities for enhancing implementation of Vietnam's NBSAP

Theme	Need
Coordination	<p>Inter and intra-ministerial coordination; Central–Provincial level coordination</p> <p>Clarification of roles and responsibilities for biodiversity</p> <p>Sub-national BAPs</p> <p>Integration of biodiversity considerations into sectoral policies, programmes and plans</p> <p>Coordination of donor and international organisations</p> <p>Regional coordination of biodiversity information and conservation programmes</p>
Information, monitoring and reporting	<p>Up-to-date information on the status of biodiversity resources</p> <p>Preparation of mandated reports to PM, CBD and other international environmental conventions</p> <p>Revised and updated Red Data Books (flora and fauna)</p>
Legislative/regulatory framework	<p>Complete regulatory framework for terrestrial, marine, wetland PAs</p> <p>Revised classification system for PAs (terrestrial, marine and wetland)</p> <p>Develop legislative and regulatory frameworks for: Wildlife trade; Gathering of wild species; Natural resources property rights; Ecotourism; Prevention and control of AIS and Collaborative management</p> <p>Complete legislative and regulatory framework for aquatic resources conservation</p> <p>Incorporate biodiversity values into sectoral EIAs</p> <p>National framework to address access to genetic resource and benefit sharing</p> <p>National biosafety guidelines</p> <p>Reinforce inspection and control capacity</p> <p>Systems plan for terrestrial, marine and wetland PAs</p>
Establishment, management of PAs	<p>Feasibility and assessment of new PAs and extension of existing PAs</p> <p>Revised classification system for PAs (terrestrial, marine and wetland)</p> <p>Terrestrial, marine and wetland PA management plans</p> <p>Collaborative management mechanisms and buffer zone management</p> <p>Nature sensitive tourism in PAs</p>

Agro-biodiversity	Comprehensive assessment of Vietnam's agrobiodiversity
Ex-situ Cons.	Ex-situ collections of plant species and genetic material
Sustainable use	Control domestic and int'l commerce in wild and endangered species Reinforce inspection and control capability of fisheries sector Community involvement and support for biodiversity conservation Sustainable use models for NTFPs and near-shore and off-shore fisheries and aquaculture Sustainable agriculture models Sustainable use of medicinal plants
Education/awareness	Integration of biodiversity into school curricula Biodiversity references and materials in Vietnamese Biodiversity information for tourism sector Re-published BAP
Training and capacity-building	Training of MARD, MOF, MOSTE and NCST personnel
Research	Information on the composition and distribution of Vietnam's biodiversity Information on the status of species, habitats and ecosystems Artificial propagation of rare and valuable aquatic species

