



Convention on Biological Diversity

# SEVEN STRATEGIES MAKE UP NBSAPs STRATEGIES, PLANS AND ACHIEVEMENTS

## STRATEGY 1



### Enhance knowledge, understanding and public awareness of the importance and value of biodiversity.

- Public and private agencies that have direct and indirect responsibilities for educational development and promotion have been integrating basic knowledge of biodiversity in school and university curricula.
- Implementation of other activities, such as development of educational materials and educational centers within natural sites, organization of science caravans, mobile exhibitions, and several projects to provide service to communities for the purpose of plant, animal, fungi and bacterial conservation and sustainable utilization, has stimulated youth of all ages and has improved public understanding and awareness of the value of biodiversity.
- Activities held on International Biodiversity Day each year are able to effectively enhance knowledge, understanding and public awareness of the importance and value of biodiversity.

## STRATEGY 2

This target also includes development, improvement and networking of biodiversity databases. Activities undertaken include:

- Evaluation of national taxonomic needs.
- Development of list of taxonomists, agencies, or museum engaged in collection of animals, plants, and micro-organisms.
- Support for taxonomic higher education, training and research.
- Formulation of draft strategic plans for taxonomic capacity building.

For more information, please visit: [http://www.dnp.go.th/botany/BOTANY\\_eng/flora.html](http://www.dnp.go.th/botany/BOTANY_eng/flora.html)

- Inventories and taxonomic identification of plants and animals in various areas have been developed for aid management, conservation, and sustainable utilization of biodiversity.
- Databases of living organisms in biodiversity hotspot areas have been completed.
- Taxonomic manuals for invertebrates and plants were developed to facilitate effective field and laboratory identification.
- The Office of Natural Resources and Environmental Policy and Planning (ONEP) has published the ONEP Biodiversity Series including 17 volumes of checklists of various types of plants and wildlife in Thailand such as orchids, algae, forest insects, fish, and wild mammals.



## PROTECTED AREAS

Thailand's protected areas, consist of national parks, forest parks, wildlife sanctuaries, non-hunting area, botanical gardens and arboretums, covered 91,328.61 km<sup>2</sup> or 17.80% of the country in 2000. Five years later by 2005, the protected area had increased to 18.31%, covering 93,941.71 km<sup>2</sup> of land.

## FLORA OF THAILAND

Of the 10,234 species (from 1,363 genera and 304 families) of Thai plants under revision, almost 50% have been completely studied and already published in the Flora of Thailand Project - which includes descriptions, distribution and classification of flora in the country - and can be divided as follows:

- 659 species of ferns from 133 genera and 35 families.
- 25 species of gymnosperms from 7 genera and 6 families.
- more than 3,000 species of angiosperms.
- In 1996, ONEP assessed the status of mammals, birds, reptiles, amphibians, and fishes in Thailand according to the IUCN Red List, which provided a set of criteria to evaluate the extinction risk of thousands of species and subspecies, using the 2.3:IUCN (1994) version numbering system and was later upgraded to the 3.1:IUCN (2001) version. In 2004, IUCN released a Red List of Threatened Species, the world's most comprehensive inventory of the global conservation status of plant and animal species. To aid in conservation planning, ONEP thus made necessary improvements to its wildlife status assessment and released an updated the Thailand Red Data: Vertebrates list in 2005, and in 2006 has assessed all vascular plants and published the Thailand Red Data: Plants.

More information can be found at [www.chm-thai.onep.go.th](http://www.chm-thai.onep.go.th)

- The Biodiversity Research and Training Program (BRT) was established to provide support and funding for research programmes, and management of Thailand's biodiversity resources. The BRT Program addresses the need for research and training to assess the biodiversity remaining in the Kingdom and to investigate the present and potential benefits of biodiversity for human life.

Budget allocated for 1055 research projects for the last ten year :

Phase I: 1996-2001 USD 7.60 million

Phase II: 2002-2005 USD 4.25 million

More information can be found at <http://brt.biotech.or.th>



## STRATEGY 3

Strengthen capacity in conservation, restoration and protection of natural habitat, within and outside the protected areas.

Ecosystem			
Inland Water	Forest	Marine and Coastal	Agricultural
Projects in 2 Ramsar sites (in Krabi and Chiang Rai Provinces) initiated local database development, participatory management and understanding of wetlands and their biodiversity values. In addition, fishery resources in Songkhle Lake have been rehabilitated while freshwater fisheries are controlled and major fishing grounds are monitored.	Narathiwat University has researched ecological and chemical components of plants to enhance conservation in Doi Pha Cheng Wildlife Sanctuary and Doi Phu Pha National Park, Nan Province.	2,083,012 and 204,888 rai of mangroves have been protected and rehabilitated, respectively. Similar conservation efforts have been also carried out in 50 rai of coral reefs and 30,000 rai of seagrass beds. Studies of procedures to rehabilitate coral reefs have also been completed at various sites.	The diversity of plants, animals, insects and fishes has been surveyed in areas of Nakhon Si Thammarat Province. Communities are also encouraged to take part in conservation efforts, especially concerning the endangered bee population. Bee conservation has resulted in a decrease in deforestation and use of chemical fertilizers.



## STRATEGY 4



### Increase efficiency in the conservation and sustainable use of species and genetic diversity.

- A wide range of *in-situ* and *ex-situ* conservation efforts have been completed for various species of farm crops, wild and native rice, herbs, and pests.
- Establishment of DNA print and database used for developing measures for *ex-situ* conservation practices.
- Establishment of various gene banks for plants, endangered animal species and forest trees with economic value.
- Orchid propagation and reintroduction into the wild.



## STRATEGY 5



### Control, regulate and reduce the threats to biodiversity.

- Several activities have been completed in support of this strategy including the development of a National Biosafety Framework and the Biosafety Act that ensures adequate protection in the transfer, handling and use of GMO's.
- A list of alien species, including invasive aquatic species that are prohibited from introduction, or to be controlled and eradicated has been completed along with the measures for their control and eradication in order to minimize their impacts on the environment.



### Drafting of the National Biosafety Legislation

The Ministry of Natural Resources and Environment was mandated by the Cabinet on 31 August 2004 to draft a national legislation on biosafety. The Cabinet resolution serves as a framework that has resulted in a number of activities carried out by the Ministry. The Committee on Drafting the Biosafety Legislation, consisting of experts and representatives from involved agencies, began its work in 2005 to design appropriate components of the Biosafety Legislation. Public opinion was gathered from workshops/meetings and websites to ensure involvement of all stakeholders in the drafting process.

## STRATEGY 6

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- Throughout the country, eco-tourism and agro-tourism sites in both urban and rural areas have been established with the cooperation of various stakeholders, especially local communities.
- Almost all of the agricultural research centers and biodiversity study areas have been established to attract the public in order to promote awareness of the value of local and indigenous plants and herbs. To promote knowledge, discussion forums have been organized continuously.
- Biodiversity-Based Economy Development Office, under the Ministry of Natural Resources and Environment has collected databases on traditional knowledge.
- The Department of Livestock Development has organized a forum, allowing local communities to disseminate their knowledge of Thai traditional medicinal practices to other communities.
- The Royal Forest Department has been collecting information to set up a traditional knowledge database concerning community forests in three provinces.
- The Department of Agriculture has been conducting a number of researches, one of them on the benefits and effects of plants used by the Morgan tribe living on Surin Island, Pheng-nga Province.
- PTT Public Company Limited's Reforestation Project in honor of His Majesty the King, aims to replant one million rai (400,000 acres) of trees.



## STRATEGY 7

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- Promote and develop cooperation between international agencies/institutions in the conservation and sustainable utilization of biodiversity.
- Achievements towards this target include:
  - National Reports (2000, 2002 and 2006).
  - Reports on specific issues related to conservation and utilization of biodiversity in various protected areas and wetlands, especially those in the Mekong River Basin. In addition, two wetlands in Nong Khai Province and Prachuab Khirikhan Province are being proposed as Ramsar Sites.
  - The Dong Phrayayen-Khao Yai Forest Complex has been approved by the World Heritage Committee to be included on UNESCO's World Heritage List.
- Regulations concerning access and benefit-sharing of biological resources are being formulated.
- A National Clearing House Mechanism has been developed and maintained in order to facilitate worldwide exchange of information on biodiversity and conservation activities, as well as encouraging related agencies to create their own CHM that links to DNEP's National Site.
- Regulations of the National Committee on Conservation and Sustainable Use of Biodiversity on Criteria and Methods of Access and Benefit-Sharing of Biological Resources are being drafted.
- The Working Group on Access and Benefit Sharing of Thailand was established under the Committee on Biological Diversity, to oversee all matters pertaining to ABS as well as Steering and Advisory Working Group for UNEP-GEF Project on Development of the National Biosafety Framework for Thailand was established to undertake the Biosafety Framework for Thailand.
- Specific Homepage.

