



ANNUAL REPORT 2005-2006



NATIONAL BIODIVERSITY AUTHORITY

#475, 9th SOUTH CROSS STREET,

KAPALEESWARAR NAGAR, NEELANKARAI,

CHENNAI 600 041

www.nbaindia.org



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1. INTRODUCTION

Biogeographically, India is situated at the tri-junction of the Afro-tropical, the Indo-Malayan and the Paleo-Arctic realms. Because of its proximity to all three realms, India possesses a unique assemblage of characteristic elements of biodiversity of each of them. Based on available data, India ranks tenth in the world and fourth in Asia in plant diversity. According to surveys conducted so far, 47,000 species of plants and 89,000 species of animals found in India. India is an acknowledged centre of rich crop diversity. It is considered to be the home to 167 important cultivated plant species and 320 species of their wild relatives. India is considered to be the centre of the origin of 30,000 to 50,000 varieties of rice, pigeon pea, mango, turmeric, ginger, pepper, banana, bitter gourd, okra, coconut, cardamom, jack fruit, sugarcane, bamboo, taro, indigo, sunhemp, amaranths, goose berries etc. There are several hundred species of wild crop relatives distributed all over the country. India's domesticated animals consist of diverse livestock including poultry and other animal breeds.

There are many pressures exerted on the biodiversity, presently, in India's forests, grasslands, wetlands, mountains, deserts and marine ecosystems. One of the major causes for the loss of biological diversity in India has been the extensive depletion of vegetative cover to make way for expanding agriculture. Since most of the forests rich in biodiversity also contain the maximum amount of mineral wealth and are also the best sites for water impoundment and mining; development projects in these areas have often led to destruction of habitats. Poaching and illegal trade of wild life products have also threatened biological diversity. The major threat to species and genetic diversity in India are similar to those found elsewhere in the world.

India is one of the first few countries to have enacted an appropriate comprehensive legislation to achieve the objectives of the convention. The National Biodiversity Authority is the key mechanism at the national level for implementing the provisions of the Biological Diversity Act, 2002. In 1994, the Government of India started the preliminary work on the Biological Diversity Act, 2002, and the act was passed by the Lok Sabha on 2nd December, 2002 and by the Rajya Sabha on 11th December 2002. The Biological Diversity Act of India, 2002 and the Biological Diversity Rules, 2004, is being implemented by the National Biodiversity Authority established by the Government of India. This authority may advise the government on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of the utilization of biological resources, select and notify the areas of biodiversity importance as biodiversity heritage sites under this act and perform other functions as may be necessary to carry out the provisions of the act. The National Biodiversity Authority on behalf of the Central Government may take measures necessary to protect the biological diversity of the country as well as oppose the grant of intellectual property rights to any country outside India on any biological resource obtained from India or knowledge associated with such biological resource which is derived from India.

The National Biodiversity Authority also perform functions such as laying down the procedure and guidelines to govern the activities such as access and benefit sharing, PIC, MAT and Intellectual Property Rights, and is also in accordance with the Article 8 (j) of the United Nations Convention on Biological Diversity (CBD). Some of the key mandates of the Biological Diversity Act 2002 include an undertaking to respect, protect and register at local, state or national levels, the knowledge of local people relating to biological diversity, regulate

access to biodiversity, associated knowledge and benefit sharing and ensure equitable sharing of benefits arising out of the use of accessed biological resources, their byproducts, innovative practices associated with their use and applications and knowledge relating thereto in accordance with mutually agreed terms and conditions between the persons applying for such approval, local bodies concerned and benefit claimers. The authority will also coordinate the activities of the State Biodiversity Boards and Biodiversity Management Committees by providing them with technical assistance and guidance, as well as commission studies and sponsor investigations and research.

The National Biodiversity Authority is the key structure at the national level established for implementing the provisions of the Biodiversity Act, 2002. The NBA has following functions:

- a) Lay down procedures and guidelines to govern the activities provided under the Act, such as ;
 - i) For obtaining any biological resource;
 - ii) For transferring the results of any research (Certain collaborative research projects exempted)

- b) To advice the Government of India on specific areas such as:
 - i) Notifications of threatened species
 - ii) Designation of institutions as repositories for different categories of biological resources; and
 - iii) Exempt certain biological resources, normally traded as commodities.
 - iv) To build up database and documentation system
 - v) Create awareness through mass media
 - vi) Training of personnel, and
 - vii) Necessary measures in the areas of Intellectual Property Rights

Other Powers/responsibilities of NBA:

1. A fee of Rs. 10,000 will be charged by NBA with each application requesting for access of genetic resources and associated TK.
2. The Authority after consulting local bodies and after collecting any required information, may grant conditional approval as defined in the Rules. The Authority may reject application if it considers that the request cannot be acceded to.
3. The Authority has also powers for the revocation of the access approvals.
4. The rules have also prescribed restrictions on activities related to access to biological resources.
5. The Rules prescribe procedures for transferring research results relating to Biological resources obtained from India for monitory consideration to any foreign agency. Any such application requesting for approval will be accompanied by fee of Rs. 5000. The Authority may agree to the request or reject the application.
6. The Rules prescribes procedure for applying for Intellectual Property Rights (IPR). Such applications shall also be accompanied by fee of Rs. 500/- each. The

Authority shall decide preferably within period of 3 months, with such terms and conditions as it may deem fit to impose in each case.

7. Regulates 3rd party transfer of Biological Resources and associated TK.
8. To develop criteria for equitable benefit sharing. For this the Authority has been empowered to formulate guidelines and describe the benefit sharing formula which will include monetary and other benefits such as royalty, joint ventures, technology transfer etc. The quantum of benefit will be on mutually agreed terms.

State Biodiversity Boards

Each State (except UT) is required to establish a State Biodiversity Board which shall be a body corporate. The Board shall advise the State Government on matters relating to conservation and equitable sharing of benefits and regulate commercial utilization of any biological resource by Indians.

Biodiversity Management Committee

As prescribed under of the Act, every local body shall constitute a Biodiversity Management Committee. The main function of the Committee is to prepare Peoples Biodiversity Register and advise State Biodiversity Boards or Authority on related matters.



Members of the Expert committee on Database met on 3rd Feb. 2006 at National Chemical Laboratory, Pune.

2. CONSTITUTION OF THE AUTHORITY INCLUDING CHANGES THEREIN

Prof. Dr. S. Kannaiyan, Former Vice-Chancellor, Tamil Nadu Agricultural University, Coimbatore has been appointed as the Chairman of National Biodiversity Authority.

Three ex-officio members are appointed (Notification No 1147 (E) on 1st October, 2003) by the Central Government for representing the Ministry dealing with Tribal affairs and two representing the Ministry dealing with Environment and Forests of whom one is the Additional Director General of Forests or the Director General of Forests.

Seven ex-officio members are appointed (Notification No 1147 (E) on 1st October, 2003) by the Central Government to represent respectively the Ministries of the Central Government dealing with-

- (i) Agricultural Research and Education;
- (ii) Biotechnology;
- (iii) Ocean Development;
- (iv) Agriculture and Cooperations;
- (v) Indian Systems and Medicine and Homoeopathy;
- (vi) Science and Technology;
- (vii) Scientific and Industrial Research;

Five non-official members are appointed (Notification No 497 (E) on 15th April, 2004) from amongst specialists and scientists having special knowledge of or in experience in, matters relating to conservation of biological diversity, sustainable use of biological resources and equitable sharing of benefit arising out of the use of biological resources, representatives of industry, conservers, creators and knowledge-holders of biological resources. The following are the names and address of the non official members notified under Sec. 8 of the Biological Diversity Act, 2002.

1. Prof. Raghavendra Gadagkar

Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560 012

2. Dr. P. Pushpangadan

Director General, Amity Institute of Herbal & Biotech Product,
Thycaud PO, Pujappura, Thiruvananthapuram 695 014

3. Prof. L. Kannan

Director Research, Centre for Advanced Study in Marine Biol., Parangipettai - 608 502.

4. Dr A. K. Ghosh

Director, Centre for Environment and Development,
329, Jodhpur Park, Kolkata -700 068

5. Prof Anil Gupta

Indian Institute of Management, Ahmedabad 380 015

3. MEETINGS OF THE AUTHORITY WITH MAJOR DECISIONS TAKEN THEREIN

3rd Meeting of the Authority

The third meeting of the National Biodiversity Authority was conducted on 15th July 2005 at NBA Conference Hall between 10.00 am – 5.00 pm.



A view of Members presented in the meeting

During the period (31st August 2004 and 15th July 2005) the following achievements were made

- Orientation programme for officials from Forest, Agriculture, Fisheries and Animal Husbandry from Tamil Nadu and Pondicherry for the establishment of State Biodiversity Boards (SBB).
- Three day awareness programme for schools of Chennai on the subject Biodiversity of India was organised. In this awareness programme many local schools participated in Art, Speech and Essay writing competition and several prizes were distributed for winners. Posters depicting the importance of Biodiversity of India were also developed and displayed. Altogether more than 3000 students and local public benefited out of this programme.
- Website for National Biodiversity Authority “www.nbaindia.org” developed and established.
- Hon’ble Union Minister for Environment and Forests Thiru A. Raja visited the National Biodiversity Authority on 1st July, 2005 to review the activities.
- Biological Diversity Act, 2002 and Biological Diversity Rules, 2004 have been published in a booklet form in English & Hindi and distributed to all relevant agencies. This was released by the Hon’ble Minister for Environment and Forests Thiru A. Raja on 1st July 2005. Action being taken to bring out the above publication in Tamil and Malayalam by August, 2005.
- Infrastructure facilities to establish NBA such as purchase of computer, furniture and other necessary items for the office were made.
- Recruitment rules sent to the Law Ministry for vetting and notification and Draft Advertisement for recruitment of staff prepared and sent to the Ministry of

- Environment and Forest for approval.
- Appointment of Shri Vishvanath Ananth, Vice Chairperson, Environment Appellate Authority as Chairperson of NBA from the month of 15th July 2004 – 31st January 2005.
 - National Biodiversity Authority is encouraging various States to form State Biodiversity Boards and also providing initial financial support to them. During this financial year Rs 1.10 crores has been provided by MoEF to the NBA, out of which Rs 35 lakhs has been distributed to such States which have set up State Biodiversity Boards in their jurisdiction. These States are Karnataka, Goa, Kerala, Madhya Pradesh, Arunachal Pradesh, Nagaland, Himachal Pradesh, Punjab and West Bengal.
 - Shri. Namo Narain Meena, Hon'ble Minister of State for Environment and Forests, Government of India visited National Biodiversity Authority Office on 26.10.2004 to review the activities.
 - Prof. Dr. S. Kannaiyan assumed office as Chairman of National Biodiversity Authority from May 2005.
 - An Interactive Workshop on “Conservation and Sustainable Utilization of Marine Bioresources” on 14th June, 2005 conducted jointly with Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai and National Biodiversity Authority.
 - A one day interactive workshop on the Implementation of Peoples Biodiversity Registers (PBR) at the Village level was organized by National Biodiversity Authority on 30th June, 2005. Twenty scientists from various parts of India participated and discussed in detail. The recommendation was drafted and placed before the Authority for discussion.
 - Terms of reference for the Expert committees proposed during the second Authority meeting is prepared and submitted to the authority.

Important decisions taken in the 3rd authority meeting:

- Approval of Budget Proposed for the year 2005-2006
- Approval and five agreements prepared by NBA
- Implementation of PBR at village level
- Approval Annual Report 2004-2005
- Purchase of Vehicle for the office
- Approval of Establishment of permanent office building
- Formation of five Expert committees such as
 1. EC on Collaborative Research projects
 2. EC on Database
 3. EC on Endemic, Endangered and threatened species
 4. EC on Normally Traded Commodities
 5. EC on Access and Benefit sharing.
- Appointment of Expert consultants

4th Meeting of the Authority

DATE : 6th October 2005
TIME : 2.00PM to 6:00PM
VENUE: Office of the Central Agricultural Research Institute, Garachrma, Port Blair, Andaman and Nicobar Islands.



A view of Members present in the meeting

Meetings conducted by National Biodiversity Authority

(i) “DISCUSSION MEETING ON THE FINALISATION OF AGREEMENTS” organized by National Biodiversity Authority, Chennai on 23-07-2005, Venue: NBA Conference Hall, Chennai.



A view of Members present in Agreement Finalisation Meeting

(ii) “WORKSHOP ON BIOLOGICAL DIVERSITY ACT, 2002 AND FORMATION OF PONDICHERRY BIODIVERSITY COUNCIL” organized by Department of Forests and Wildlife and National Biodiversity Authority on 05-08-2005, Venue: Hotel Annamalai, Pondicherry.



Thiru A. Namashivayam, Hon'ble Minister for Agriculture and Forestry lighting the kuthuvellakku



A view of workshop and inaugural function on Biodiversity Act, 2002

(iii) “INTERACTIVE DISCUSSION MEETING ON INTELLECTUAL PROPERTY RIGHTS AND BIODIVERSITY ACT 2002 organized by National Biodiversity Authority on 06-09-2005, Venue: Conference Hall, National Biodiversity Authority, Chennai.



A view of Members present in IPR meeting conducted by NBA at Conference Hall, NBA, Chennai

(iv) “FACILITATING FORMATION OF STATE BIODIVERSITY BOARDS (SBB) AND BIODIVERSITY MANAGEMENT COMMITTEES (BMC) IN INDIAN HIMALAYAN REGION” Organizers: National Biodiversity Authority, Chennai and G.B. Pant Institute of Himalayan Environment and Development, Kosi-Katarmal, Almora on 11-12, September 2005, Venue: GBPIHED, Kosi-Katarmal, Almora, 263643 Uttaranchal.



A view of Members present in the inaugural session of workshop conducted by NBA with G.B.Pant Institute at Almora



Prof. S. Kannaiyan, Chairman, NBA releasing the abstract Book in the workshop

(v) “REVIEW MEETING ON STATE BIODIVERSITY BOARDS” organised by National Biodiversity Authority, Chennai on 16th September 2005, Venue: Conference Hall, National Biodiversity Authority, Chennai.



A view of representatives from various SBB attending the review meeting



Prof. S. Kannaiyan, Chairman and Dr. K. Venkataraman, Secretary, NBA in discussion with SBB Members

(vi) “NATIONAL WORKSHOP ON INVOLVEMENT OF TAXONOMISTS IN BIODIVERSITY AND BIO-RESOURCES CONSERVATION AND FORMATION OF PEOPLES BIODIVERSITY REGISTERS” organized by National Biodiversity Authority, Chennai on 19.09.2005, VENUE: NBA Conference Hall, Chennai.



A view of Members present in the meeting conducted by NBA at Conference Hall, NBA, Chennai



(vii) “CAPACITY BUILDING FOR BIODIVERSITY MANAGEMENT COMMITTEES WITH TAXONOMISTS EXPERTISE” meeting organized by National Biodiversity Authority, Chennai on 23.09.2005, Venue: Conference Hall, National Biodiversity Authority, Chennai

(viii) “NATIONAL CONFERENCE ON SAFE ENVIRONMENT FOR THE FUTURE GENERATIONS” organized by National Biodiversity Authority and Department of Zoology on 1-2, September 2005, Venue: Auxilium College, Gandhinagar, Vellore, Tamilnadu, India

(ix) “BRAIN STORMING SESSION ON STRATEGY FOR SAFEGUARDING THE BIODIVERSITY IN A SCIENTIFIC MANNER THROUGH TAXONOMIC EXPERTISE” held on 2nd August 2005 Under the Chairmanship of **Secretary** Ministry of Environment and Forest, New Delhi.

(x) “BRAINSTORMING SESSION FOR OPTIMISING THE EFFECTIVENESS OF NATIONAL BIODIVERSITY AUTHORITY, STATE BIODIVERSITY BOARDS AND BIODIVERSITY MANAGEMENT COMMITTEES” held on 2nd August 2005 Under the Chairmanship of Secretary, Ministry of Environment and Forests, New Delhi.

(xi) Review Meeting to discuss the “PROGRESS OF NATIONAL BIODIVERSITY AUTHORITY” held on 26th September 2005 Under the Chairmanship of Special Secretary, Ministry of Environment and Forests, New Delhi.

(xii) “REGIONAL CONFERENCE ON THE AGENDA OF WTO HONGKONG MINISTERIAL; CHALLENGES FOR SOUTH ASIA” organized by Research and Information System for Developing countries and IUCN Asia and Federation of Indian Chambers of Commerce and Industry on 11-12 August 2005, Venue: FICCI Conference Hall, New Delhi.

(xiii) “INAUGURATION OF MARINE AQUARIUM” Zoological Survey of India, Santhome High Road, Chennai. Inaugurated by Chairman, NBA on 16th September 2005.

Important decisions taken in the 4th Authority Meeting

- Appointment of Legal consultant in NBA, Chennai
- Appointment of Expert consultant for the Expert committees formed by NBA, Chennai
- Appointments of Administrative Officer on Deputation Basis
- Appointment of Staff on Deputation Basis as per the Approved Recruitment Regulation By NBA
- Awards to State Biodiversity Boards and Biodiversity Management Committees
- Agenda item Proposed by Department of Agriculture Research and Education
- Global Environmental Facility Project Proposal by Prof Madhav Gadgil, IISc, Bangalore
- Regional Biodiversity and Bioresources Conservation Centres (RBBC)
- Taxonomy Research: Human Resource Development at National and International Level for Strengthening BMCs
- Formation of Advisory Committees
- Formation of Scientific Panels



5th Meeting of the Authority

DATE : 20th January 2006
TIME : 10.00AM to 6:00 PM
VENUE: Office of the Indian Institute of Spices Research, ICAR, Calicut.



A view of Members present in the meeting

MEETINGS CONDUCTED BY NATIONAL BIODIVERSITY AUTHORITY

(i) “EXHIBITION ON MARINE FAUNAL DIVERSITY- AMAZING WORLD OF ANIMALS – AN EXPOSITION.” organized by National Biodiversity Authority and Marine Biological Station, Zoological Survey of India, Chennai on 26 – 29th, October, 2005, Venue: Marine Biological Station, Zoological Survey of India, Chennai.

(ii) MEETING FOR ORGANISING “COMMITTEE TO EVALUATE THE ACCESS, PATENT, TRANSFER OF RESEARCH RESULTS AND MATERIAL TRANSFER APPLICATIONS” organized by National Biodiversity Authority, Chennai, on 11-11-2005, Venue: NBA Conference Hall, Chennai.

(iii) “A WORKSHOP ON AWARENESS CREATION ON BIODIVERSITY AND CONSERVATION OF MUSHROOMS” organized by National Biodiversity Authority, Chennai and Indhira Gandhi Agricultural University, Raipur on 1 – 2nd December, 2005, Venue: College of Agriculture, IGAU, Raipur.



Prof. S. Kannaiyan, Chairman, NBA released the abstract book in the workshop



Prof. S. Kannaiyan, Chairman, NBA in discussion with Members present in the workshop

(iv) INTERNATIONAL CONFERENCE ON “EMERGING TRENDS IN PLANT MICROBES INTERACTIONS” organized by National Biodiversity Authority and CAS in Botany, University of Madras on 8 – 10th December, 2005, Venue: CAS in Botany, University of Madras.

(v) “EXPERT COMMITTEE ON DATABASE ON BIODIVERSITY AND TRADITIONAL KNOWLEDGE” organized by National Biodiversity Authority, Chennai on 9-12-2005, Venue: NISCAIR, Pusa Campus, New Delhi.



A view of Members presented in the EC on Database meeting

(vi) “BIODIVERSITY, POLLUTION, EIA AND ENVIRONMENTAL MANAGEMENT AND DISASTER MANAGEMENT WITH REFERENCE TO TSUNAMI – QUIZ PROGRAMME FOR COLLEGE STUDENTS” organized by National Biodiversity Authority, Chennai and Department of Advanced Zoology and Biotechnology, Loyola College, Chennai, on 12 & 13 December, 2005, Venue: Lawrence Sundaram Auditorium, Loyola College, Chennai.

(vii) “MARINE BIODIVERSITY OF GULF OF MANNAR AND PALK BAY IN TAMIL NADU” workshop organized by National Biodiversity Authority and Aquaculture Foundation of India, Chennai, on 17.12.05 and 18.12.05, Venue: M.G.Mahal, Madurai Road, Ramanathapuram.



Prof. S.Kanniayan, Chairman and **Dr.K.Venkataraman**, Secretary in the inaugural function



A view of participants in the workshop

(viii) “NATIONAL SYMPOSIUM ON CONSERVATION AND VALUATION OF MARINE BIODIVERSITY” organized by National Biodiversity Authority and Zoological Survey of India, on 26 – 29th Dec, 2005, Venue: Marine Biological Station, ZSI, Chennai.

(ix) “ADVISORY COMMITTEE MEETING ON AGRO BIODIVERSITY” organized by National Biodiversity Authority, Chennai, on 29-12-2005, Venue: NBA Conference Hall, Chennai.



A view of Committee members presented in the meeting

(x) MEETING FOR ORGANISING “COMMITTEE TO EVALUATE THE ACCESS, PATENT and TRANSFER OF RESEARCH RESULTS AND MATERIAL TRANSFER APPLICATIONS” organized by National Biodiversity Authority, Chennai, on 29-12-2005, Venue: NBA Conference Hall, Chennai.

Important decisions taken in the 5th Authority Meeting

- Approval Access application forms received by NBA
- Approval of proposals for funding by NBA
- Approval of Terms of Reference for Expert committees: EC on Repositories; EC on Research Results; EC on Agrobiodiversity
- Appointment of Administrative Officer
- Publication of NBA Bulletin and Honorarium for NBA Bulletin
- Printing of Biodiversity Act and Rules in different languages
- Appointment of Expert consultant
- Approval of Draft Guidelines and Agreements
- Number of Plant per each application
- EC on database meeting recommendation
- Minutes of the meeting on EC on Data base Conducted on 09.12.2005
- Minutes of the Meeting on Expert Committee on Collaborative Research Projects Conducted on 7th Jan 2006

4. COMMITTEES CONSTITUTED BY THE AUTHORITY AND THEIR ACTIVITIES

In exercise of the powers conferred under Sub-section (2) of Section 13 of the Biological Diversity Act, 2002 and Biological Diversity Rules, 2004 the following Expert Committee have been formed in the fourth National Biodiversity Authority Meeting held on 6th October, 2005 at Port Blair. The following are the names of Chairman and Committee Members and the activities of the Expert committees established by National Biodiversity Authority:

1. Expert Committee on Endangered, Endemic and Threatened Species

CHAIRMAN	
Prof. T. N. Ananthkrishnan Emeritus Scientist, Dwaraga, Nungambakkam, Chennai	
MEMBERS	
1.	Dr. R. Uma Shanker , Department of Crop Physiology, Univ. of Agricultural Sciences, Bangalore-560065
2.	Dr. M. K. Janarthanam , Botany Department, Goa University, Taleigao Plateau, Taleigao, Goa – 403 206.
3.	Shri. R. P. S. Katwal , Additional Director General (Forests), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi 110003
4.	Prof. Dr. T. Balasubramaniam , Director, CAS in Marine Biology, Parangipettai, Tamil Nadu.
5.	The Director , SACON, Anaikatty (PO), Kalayampalayam, Coimbatore – 641 108.
6.	The Director , Zoological Survey of India, M block, New Alipore, Kolkatta-700053
7.	Dr. M. Swamiappan , Professor of Entomology, Agricultural College and Research Institute, Madurai.
8.	The Director , Bombay National History Society, Horn Bill House, SB Singh Road, Bombay-400 023
9.	Dr. K. Narayanan Nair , Sr. Scientist, NBRI, Rana Pratap Marg, P. B. No.436, Lucknow-226001.
10.	Dr. M. Subramanian , Former Director (Research), Madurai.
11.	The Director , Botanical Survey of India, 3 MSO Building, 5 Floor, CGO Complex, Salt Lake, Kolkata 70 064.

Activities of the Committee

Dr. Kartik Shanker, Expert Consultant

Summary: An expert committee was constituted by the NBA, primarily to develop guidelines for identifying the list of rare, threatened, endangered and endemic species. Three meetings of the expert committee were conducted during January, February and April, 2006. Further, subcommittees on plants, invertebrates and vertebrates conducted meetings during April 17-18 and April 26, 2006. Based on these meetings and inputs from members, draft guidelines have been prepared which were approved by the committee during the final meeting on April 29, 2006. After the final inputs have been incorporated, and approval by the Chairman of the committee, the guidelines will be posted on the NBA website for public comment and circulated to key institutions and individuals in the country. Final comments

will be incorporated, and following approval by the Chairman and the committee, the guidelines will be adopted by the NBA.

Terms of Reference

The terms of reference for the committee were to:

- a) Develop guidelines for identifying the list of rare, threatened, endangered and endemic species to the Government of India, taking into consideration the already existing list of species from agencies such as the Botanical Survey of India (BSI), Zoological Survey of India (ZSI), Wildlife Institute of India (WII), IUCN, CITES, FRLHT, AYUSH and other agencies
- b) The obtained, collated and reviewed information may be used to identify the gap areas, consolidate and recommend the final list to the Government of India
- c) Prepare guidelines to notify or denotify any species which is on the verge of extinction or likely to become extinct in the near future as a threatened species and prohibit or regulate collection thereof for any purpose and take appropriate steps to rehabilitate and preserve those species
- d) Identifying priority areas in taxonomy and capacity building on taxonomy
- e) To regulate and prevent invasive species
- f) Genetically modified organism monitoring studies, insects, pollinators and wildlife

EXPERT COMMITTEE MEETINGS



A view of Committee members in the meeting

First Meeting: The first meeting of the National Biodiversity Authority Expert Committee on Threatened, Endangered and Endemic Species was held on January 18, 2006 at Chennai at the NBA Office in Neelankarai.

Salient points

1. Importance of inter-institutional collaborative research projects stressed
2. Identifying the existing lists and collating information
3. Guidelines and Criteria to be developed
4. Taxonomy should be promoted
5. Issues related to the Indian Wild Life Protection Act, 1972, should be resolved
6. There should be wider consultation for the guidelines

Second Meeting: The second meeting of the National Biodiversity Authority Expert Committee on Threatened, Endangered and Endemic Species was held on February 28, 2006 at Chennai at the NBA Office in Neelankarai.

Salient points

1. Statement of the problem
2. What is the alternate set of criteria?
3. Mechanics: How do we go about it?
4. How does that get communicated to national processes?

Actions

- Draft guidelines should be prepared by March 31, 2006 by Kartik Shanker, for circulation amongst the committee and other experts
- The sub-group meeting to decide categories and criteria should be conducted on April 17-18, 2006.
- Categories and criteria should be developed by April 18, 2006 by the conclusion of the above meeting
- The final meeting of the committee should be held on April 29, 2006.

Subcommittee for Categories and Criteria

Subcommittee meetings were planned to develop guidelines/criteria for red listing species belonging to different taxonomic groups with the following terms of reference:

- Based on the mainframe of guidelines provided by committee
- Case examples should be provided using the developed guidelines for representative taxa within each major group
- Each group should defend the guidelines in plenary
- Develop recommended models for assessing status for each of the taxa

Meetings: The subcommittee meetings for plants and vertebrates were held on April 17-18, 2006 at Chennai at the NBA Office in Neelankarai. A meeting of the Invertebrate specialist scientists was held on 26th April, 2006 at Zoological Survey of India, Fire Proof Spirit Building, Indian Museum from 11.30 am onwards to identify Threatened, Endangered and Endemic Invertebrates.

Final Meeting of EC on Endangered, Endemic and Threatened Species

The final meeting of the National Biodiversity Authority Expert Committee on Threatened, Endangered and Endemic Species was held on April 29, 2006 at Chennai at the NBA Office in Neelankarai. The guidelines prepared by **Dr. Kartik Shanker**, Expert Consultant were discussed in detail, and final inputs were provided.

Salient points

- Consensus was reached between plant, invertebrate and vertebrate groups
- Relationship with Indian Wild Life Protection Act was resolved
- Draft guidelines were provisionally approved, subject to final changes
- The final draft is to be prepared by May 31, 2006 for Chairman's approval
- The draft guidelines will be posted for public comment for one month
- After one month, the guidelines will be finalized with the committee's inputs and submitted to the authority for approval.

2. Expert Committee on Databases on Bio-resources and Traditional Knowledge

CHAIRMAN	
Prof. Madhav Gadgil , Centre for Ecological Sciences, Indian Institute of Science, Bangalore - 560012.	
MEMBERS	
1.	Dr. A. K. Ghosh , Director, Centre for Environment and Development, 329, Jodhpur Park, Kolkata – 700 068.
2.	Dr. K. N. Ganeshiah , Dept., of Genetics & Plant Breeding, University of Agricultural Sciences, GKVK Campus, Bangalore – 560 065.
3.	Shri. V.K. Gupta , Director, Planning and Management, National Institute of Science Communication and Information Resources, Dr. K.S. Krishnan Marg, New Delhi-110 012.
4.	Shri. Darshan Shankar , Director, Foundation for Revitalisation of Local Health Traditions, 74/2, Jarakbande Kaval, Yalahanka BG, Bangalore – 560 064.
5.	Shri. V. N. Sanjaran , Dept. of Ocean Development, CMLRE, Salim Ali Road, Kochi – 682 014.
6.	The Director , National Bureau of Plant Genetic Research, ICAR, Pusa Campus, New Delhi – 110 012.
7.	The Director , Central Marine Fisheries Research Institute, Kochi.
8.	The Director , National Bureau of Fish Genetic Resources, Canal Ring Road, P.O. Dilkusha, Lucknow.
9.	The Director , National Bureau of Animal Genetic Resources, P.B.No.129, Makrampur Campus, Karnal, Haryana – 132 001.

Activities of the Committee

Ms. Tijita Anand, Expert Consultant

The Expert Committee on Database on Biodiversity and Traditional Knowledge was instituted by the National Biodiversity Authority with Prof. Madhav Gadgil, the noted ecologist from CES, Bangalore, as the Chairman of the committee, and eleven other members drawn from various national bureaus, universities and other experts on biodiversity.



A view of Members present in the meeting

First Meeting: The First Meeting of the Expert Committee on Database on Biodiversity and Traditional Knowledge was held at NISCAIR, Pusa, New Delhi on 9.12.2005 between 10.00 am - 4.30 pm. The meeting was attended by eight members and two special invitees. There were four expert presentations. The recommendations of the first meeting are as follows:

1. The Second meeting of the EC will be held at the National Chemical Laboratory, Pune, on the 3rd February 2006.
2. The Member Secretary, Ms. Tijitha Anand to take up the task of compiling an exhaustive list of all institutes and organisations that have databases on biodiversity, making use of the format given on the NCBI website.
3. Dr. Vishwas Chavan and Dr. Chinmaya Rathore to take up the task of forming a “*Collaborative framework for setting up of the National Biodiversity Information System*” that will be discussed in the next meeting of the Expert Committee.
4. Dr V K Gupta will provide a discussion paper on: The importance to recognize the knowledge providers in order to sustain Biodiversity Act and Rules: The need for a legal framework for recognition of rights in the area of traditional knowledge and biodiversity.

Second Meeting: Following this the Second Meeting of the Expert Committee on Database was held at the Digital Informatics Resource Centre, National Chemical Laboratory, Pune on 3. 02. 2006 between 10.00 am and 4.30 pm. The meeting was attended by eight members and one special invitee. There were six expert presentations following which these recommendations were made by the committee:



A view of Members present in the meeting

1. It was felt that there is an urgent need for Indian Biodiversity Information System (IBIS) to be implemented with following features:

- Such an information system should be federation of heterogeneous, multi-discipline, distributed databases, and integrated through appropriate interoperable framework, such as web services architecture.
- Such an information system would consist of data provider registry, protocol schema to interconnect databases, multiple indexes, and multiple portals for various user communities. IBIS should also take care of multi-lingual collection, collation, and dissemination of data.

- IBIS data portals, and central cache, and indexes needs to be mirrored at distributed locations, and may be accessible from anywhere, anytime.
 - NBA may urgently organize a meeting with planning commission, various ministries, other data custodians, commercial organizations to discuss the framework, strategy, of and their participation in and support for IBIS.
2. Four specific discipline databases that are already at different levels of developments shall be encouraged as part of Phase I of IBIS.
 - (a) Biodiversity and Bioresources Databases and their network programs (NCL Center for Biodiversity Informatics, IBIN, BTIS, ENVIS, ARIS, etc.),
 - (b) Peoples Biodiversity Registers (PEBINFO),
 - (c) Spatial datasets (IIRS, NRSA, ISRO, etc.), and
 - (d) Traditional Knowledge databases (TKDL, FRLHT, NIF, and CTKDL).
 3. Encourage the integration of these above referred databases, and develop user specific portals for them, using the existing strengths such as those with NCL.
 4. We need to expedite the databases and information system inventory. It was suggested that a suitable agency may be commissioned to complete this task.
 5. Peoples Biodiversity Registers (PBR) – methodology, databases and implementation shall be discussed in a national level meeting around mid – March 2006 involving representatives of all state and union territories, concerned ministries of the central governments, experts, office bearers from Panchayat Raj institutions. Follow up plan should be finalized based on the input received at this meeting. The methodology manual and CD containing the PBR databases can be posted on NBA, NCL, FRLHT and other websites, as well as hard copies may be circulated in advance to the invitees of the March meeting.
 6. A concept paper on “*Scope and Modalities, Implementation, and Framework of the proposed IBIS*” shall be developed by the group in advance and discussed at proposed 3rd meeting of the group on March 16, 2006.
 7. Dr. Bhandhopadhyaya, Director, ENVIS, MoEF, to be called as a special invitee for the forthcoming meeting in March.

Third Meeting: The Third meeting of the committee was held at the Institute of Ocean Management, Anna University, Chennai on 23.06.2006 between 2 pm and 5 pm to conclude the work of the committee and propose the Indian Biodiversity Information System based on the deliberations of the previous meetings. The meeting was attended by ten members and one special invitee. An expert presentation was made by Dr. Vishwas Chavan, NCL, Pune on the ‘*Scope, Modalities, and Implementation Framework*’ of the IBIS. He presented the IBIS viewpoints as follows:



A view of Members present in the meeting

IBIS will:

- Be a distributed facility, while encouraging co-operation and coherence;
- Be national in scale, though implemented by various national, state, district, village level, and thematic players (agencies, institutions, individuals, communities);
- Be open to participation by individuals, communities, agencies, institutions, from all walks of life, and offering potential benefits to entire nation and its constituents;
- Help bridge human language barriers by promoting standards and software tools designed to facilitate their adoption into multiple languages, character sets, and computer encoding;
- Serve to disseminate technological capacity by drawing on and making available scientific, technical, and social information; and
- While aiming to make biodiversity information openly, and freely available, will facilitate credit to its contributors, respect and fulfill national aspirations such as intellectual property rights, economic wealth, bio-security, and social wellbeing.

The final outcome of the committee that was unanimously decided was for a pilot project proposal for the Indian Biodiversity Information System (IBIS) to be put up to the Government for approval.



2. Expert Committee on Collaborative Research

CHAIRMAN	
Dr. B. S. Dhillon , Director - Research, Punjab Agri. Univ., Ludhiana, Punjab – 141001.	
MEMBERS	
SL.NO.	NAME
1.	Prof. P. S. Ramakrishnan , Jawaharlal Nehru University, New Mahrauli Road, New Delhi.
2.	Prof. T. C. Narendran , Systematic Entomology Laboratory, Department of Zoology, University of Calicut, Calicut-673 635.
3.	The Director General , ICFRE, P. O. New Forests, Dehradun – 248 006, Uttaranchal.
4.	Dr. Yogesh S. Shouche , National center for Cell Science, Pune University Campus, Ganeshkhind, Pune-411 007.
5.	Dr. J. Nagaraju , Staff Scientist & Chief, Laboratory of Molecular Genetics, Centre for DNA Fingerprinting and Diagnostics, 4-87/1, ECIL road, Nacharam, Hyderabad-76.
6.	Dr. G. S. Lavekar , Director, Central Council for Research in Ayurveda and Siddha, 61-62, Institutional Area, D Block, Janakpuri, New Delhi.
7.	Dr. J. P. Mishra , Asst. Dir. Gen., Room No.212, Krishi Bhavan, New Delhi – 110001.
8.	Dr. S. Natesh , Advisor, Department of Biotechnology, CGO Complex, Block No.2, Lodhi Road, New Delhi – 110001.
9.	Dr. T. J. Kurian , Director, Dept. of Science and Technology, Technology Bhavan, New Mehrauli Road, New Delhi.
10.	The Director , National Institute of Oceanography, Dona Paula - 403 004. Goa.

Activities of the Committee

Dr. Hemal Kanvidae, Expert Consultant



A view of Members present in the meeting

These guidelines have been prepared to facilitate the implementation of section 5 of the Biological Diversity Act, 2002 relating to Collaborative research projects involving transfer or exchange of biological resources or information relating thereto between institutions including government sponsored institution and such institutions in other countries.

In consideration of the fact that collaborative research projects have been exempted from obtaining approval of the National Biodiversity Authority established under section 8 of Biological Diversity Act, 2002 and that the transfer and exchange of biological resources cannot be ruled out in such projects, these guidelines hitherto notified by the Ministry of Environment and Forests in compliance with Section 5 3(a) of Biological Diversity Act, 2002 for such research projects.

To facilitate the transfer and exchange of biological resources as per Sec 5 of the Act an Expert Committee on Collaborative Research was established in the second meeting of the authority held on 31-08-2004. In the Third Authority Meeting of NBA, (held on 15-07-2005) approved the appointment of Expert Consultant and the Terms of Reference (TOR) of the working of the Expert Committee. The salient features of TOR include i. Develop guidelines to address research; ii. Develop guidelines for collaborative research amongst government organizations involving foreign institutions or accredited bodies or industries or institutions. iii. Develop guidelines for non-collaborative research for flora and fauna including soils, microorganisms and genetic material and iv. Develop guidelines for sharing of data.

In the Fourth Authority Meeting of NBA, (held on 06-10-2005) approved the formation of Expert Committee with Dr. B. S. Dhillon Director (Research), Punjab Agricultural University, Ludhiana as its Chairperson and Nine others as Members. It was also approved to appoint Dr. Hemal Kanvinde as the Expert Consultant on Collaborative Research who had applied for the post of "Expert Consultant" through the NBA web advertisement for the post of "Expert Consultant".

First Meeting: The first meeting of the Expert Committee on collaborative Research was held on 07-01-2006 at the Office of NBA, Chennai. In the meeting Section 5 of the Biological Diversity Act, 2002 was discussed at length. Also the following issues were discussed

- (1) Third party transfer
- (2) Importance of traditional knowledge
- (3) Repositories of germplasm / specimen
- (4) Discussion on ICAR draft guidelines on germplasm exchange
- (5) Develop guidelines to address research activities
- (6) Develop guidelines for collaborative research amongst government organizations involving foreign institutions or accredited bodies or industries or institutions.
- (7) Develop guidelines for non-collaborative research for flora and fauna including soils, microorganisms and genetic material
- (8) Develop guidelines for sharing of data

Second Meeting: The Second meeting Expert Committee on collaborative Research was held on 07-04-2006 at the Office of NBA, Chennai. The following issues were discussed

- (1) Transgenic research
- (2) Guidelines for special and protected areas
- (3) Guidelines for access
- (4) Guidelines for transfer / exchange of biological material
- (5) Guidelines for transfer of research results

Research organization such as MSSRF, CSIR, KALPAVRIKSH, Dept. of AYUSH, WWF, University of Madras, NBPGR, NBRI, UGC, IISc and CCRAS were contacted for more information on the guidelines used for International Collaboration.

Ministry of Agriculture, Department of Agricultural Research and Education (DARE), New Delhi conducted a brainstorming session on the preparation of Collaborative Research Guidelines for their exchange/transfer of Bioresource under bilateral and multilateral programmes. The DARE Guidelines was discussed and finalized in the “Advisory Committee on Agro biodiversity” (on 20.12.2005) a committee constituted by the National Biodiversity Authority, under the chairmanship of Dr E A Siddiq, Former DDG, ICAR and 15 other members. After finalization of the DARE Guidelines the same was sent to Ministry of Environment and Forests, New Delhi for scrutiny and notification through Ministry of Law and justice.

The MoEF, New Delhi in their letter requested the NBA to circulate the DARE Guidelines to the Secretaries of all different Ministries involved in biodiversity research to receive their comments. The DARE guidelines were sent to all Secretaries vide Lr. No. 8/2/213/2003-NBA(S) dated 22.03.2006 and NBA did not receive any reply. Hence a reminder was also sent mentioning about the urgency of the information required vide Lr. No. 8/2/213/2003-NBA(S) dated 04.05.2006. It was also felt by the Ministry of Environment and Forests that at times it creates confusion if different departments like ICAR, DBT, DST, DOD, ICMR etc come forward with their own set of guidelines to deal with same issue which may or may not be in complete harmony with each other. Hence NBA was requested to prepare amalgamated guidelines for all the ministries involved in biodiversity.

On 4th July MoEF, New Delhi conducted a meeting to discuss the finalization of the Collaborative Research Guidelines. In the meeting it was agreed that the Expert Committee constituted by NBA did a thorough job of the Guidelines and felt it is enough for notification. Before notification the Secretary, Ministry of Environment and Forests will send the guidelines to other Secretaries of various Ministries for their comments and consent.



5. ACTIVITIES TO REGULATE ACCESS TO BIOLOGICAL RESOURCES AND FAIR AND EQUITABLE BENEFIT SHARING

A. GUIDELINES

A) Expert Committees

As per decision taken in the Authority the following **Expert Committees** were formed to prepare guidelines on the subjects mentioned below:

1. Collaborative Research Projects (Section 5 of BD Act)
2. Access, Benefit Sharing and Material Transfer (Section 3 of BD Act)
3. Normally Traded Commodities ((Section 40 of BD Act)
4. Rare Threatened Endangered and Endemic Species (Section 38 of BD Act)
5. Biodiversity Resources Centre Database (Section 12 (vii and xiii) of Biodiversity Rules, 2004).
6. Designation of Repositories (Section 39 of BD Act)
7. Research Results (Section 4 of BD Act)
8. Agro biodiversity (Section 13 (1)of BD Act)

Based on the terms of Reference (TOR) approved by the authority these Expert Committees shall prepare guidelines on their chosen topic. Experts drawn from various fields constitute this multi disciplinary Expert Committees. The following are the achievements made by these committees.

Achievements

1. Expert Committee on Collaborative Research

The Expert Committee on Collaborative Research Projects under the Chairman ship of Dr. B. S. Dillon, Director Research, PAU, Ludiana met and initiated the preparation of general guidelines for all the ministries of Government of India. Department of Agriculture Research (DARE), Indian Council of Agriculture of Research has prepared Guidelines on the Collaborative Research Projects of ICAR. This Guideline was discussed in detail in the Expert Committee meeting as well as in the 4th Authority meeting. The fourth Authority meeting directed NBA to put up the DARE guidelines to the Agro-biodiversity Advisory Committee and the Committee met and approved the Guidelines after making appropriate modifications. The Authority approved Guidelines (Fifth NBA meeting) on Collaborative Research Projects on ICAR was sent to Administrative Ministry for notification through Ministry of Law and Justice. The MoEF, New Delhi in their letter requested the NBA to circulate the DARE Guidelines to the Secretaries of all different Ministries involved in biodiversity research to receive their comments. It was also felt by the Ministry of Environment and Forests that at times it creates confusion if different departments like ICAR, DBT, DST, DOD, ICMR etc come forward with their own set of guidelines to deal with same issue which may or may not be in complete harmony with each other. Hence NBA was requested to prepare amalgamated guidelines for all the ministries involved in biodiversity. On 4th July 2006, MoEF, New Delhi conducted a meeting to discuss the finalization of the

Collaborative Research Guidelines. In the meeting it was agreed that the Expert Committee constituted by NBA did a thorough job of the Guidelines and felt it is enough for notification. Before notification the Secretary, Ministry of Environment and Forests will send the guidelines to other Secretaries of various Ministries for their comments and consent.

2. Expert Committee on Access, Benefit Sharing and Material Transfer

The Expert Committee on Access, Benefit Sharing and Material Transfer was formed under the Chairmanship of Dr. Pushpangadan, Director, National Botanical Research Institute. "The Tata Energy Research Institute, New Delhi" has proposed to take up the Expert Consultancy and this has been approved in the 5th Authority Meeting held on 20th January 2006.

3. Expert Committee on Normally Traded Commodities

The Expert Committee on Normally Traded Commodity was formed under the Chairmanship of Dr. J.P. Mishra, ADG, ICAR. So far no Expert Consultant was available to carry out this important issue. However, the collection of information pertaining to the Normally Traded Commodity of India from various government institutions is underway by the office of the National Biodiversity Authority.

4. Expert Committee on Threatened, Endangered and Endemic Species

The Expert Committee on Threatened, Endangered and Endemic Species under the Chairmanship of Prof T. N. Ananthkrishnan, Former Director, Zoological Survey of India met thrice and finalized the preparation of general guidelines.

5. Expert Committee on Databases on Bio-Resources and Traditional Knowledge

The Expert Committee on Database under the Chairmanship of Prof Dr. Madhav Gadgil, Indian Institute of Sciences, Bangalore met thrice and finalized the general guidelines for the establishment of database on "Indian Biodiversity Information System" (IBIS).

6. Expert Committee on Designation of Repositories

The Expert Committee on Designation of Repositories was formed under the Chairmanship of Dr. A. K. Ghosh, Former Director, ZSI. The committee's Terms of Reference was approved in the Fifth Authority meeting held on 20th January 2006. Once the Expert consultant is appointed the committee will start preparing the guidelines.

7. Expert Committee on Research Results

The Expert Committee on Research Results was formed under the Chairmanship of Dr. S. S. Kadam, Vice Chancellor, Marathwada Agricultural University, Parthani. The committee's Terms of Reference was approved in the Fifth Authority meeting held on 20th January 2006. Once the Expert consultant is appointed the committee will start preparing the guidelines.

8. Expert Committee on Agrobiodiversity

The Expert Committee on Agrobiodiversity was formed under the Chairmanship of Dr. B. S. Dhillon, Punjab Agricultural University. The committee's Terms of Reference was approved in the Fifth Authority meeting held on 20th January 2006. Once the Expert consultant is appointed the committee will start preparing the guidelines.

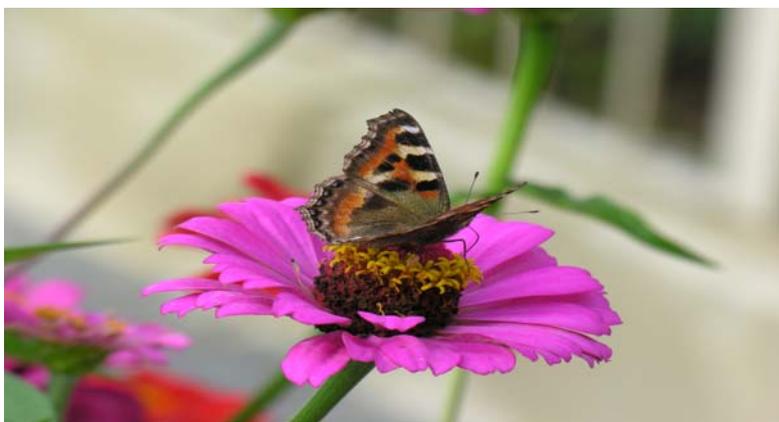
B. AGREEMENTS

Applications for Access of Bioresource received by National Biodiversity Authority

Since inception, NBA has received applications for Access, Application for Transfer of Bioresources and application for Patent.

1. NBA has received applications from various sources from India and abroad.
2. After the approval, the applicants have to enter into an agreement as per the requirement of the Act. The following agreements are prepared by National Biodiversity Authority
 1. Access of bio-resources for commercial purposes
 2. Access of bio-resources for research and bio-survey
 3. Transfer of Research Results (Technology)
 4. IPR (Patent)
 5. Material Transfer

The draft agreements were discussed thoroughly by NBA in an interactive meeting with 12 experts from various parts of the country on 23rd July 2005 and the agreements were placed before a NBA approved committee for scrutiny and approval. A committee headed by Mr. Vishwanath Anand, Vice Chairman, Environment Appellate Authority, New Delhi and 14 other members scrutinized and approved the agreements prepared by NBA. This was placed in the 5th Authority meeting held on 20th January 2006 for approval and the Authority approved the same. On 4th July Ministry of Environment and Forest, New Delhi conducted a meeting to discuss the finalization of the agreements prepared by NBA. In the meeting it was agreed that the Expert Committee constituted by NBA did a thorough job of the agreement and felt it is enough for notification. These approved draft agreements were sent to the Government of India (Administrative Ministry) for notification by Law Ministry.



6. DETAILS OF APPROVAL GRANTED FOR UNDERTAKING ACTIVITIES AS REFERRED IN SECTION 3,4 AND 6 OF THE BIOLOGICAL DIVERSITY ACT, 2002

Following are applications approved as per the comments of the Expert Committee as well as the decision taken by the Authority in its 5th meeting:

1. Reference No: F. No. 9-1a/2003/Tech

Name of the Applicant : Smt.A. G. Indika Lakmini supported by Srilankan Govt.
Type of application : Access of Bioresource Form 1.
Bioresource : *Emblica officinalis*

Comments: An agreement prepared by NBA will be signed by the party for benefit sharing as well as not transferring the material to third party.

Approved by NBA as per the comments given by the Expert Committee

2. Reference No: F. No.9-10/2004/Tech

Name of the Applicant : Mr. Chandy C. Thambi,
International Flavours and Fragrances
Type of application : Form IV (Transfer of Material)
Bioresource : Vanilla (Normally Traded commodity)

1. It may be referred to Central Institute of Medicinal and Aromatic Plants (CIMAP, a unit of CSIR).

Comments: An agreement prepared by NBA will be executed with the party for benefit sharing as well as not transferring the material to third party.

Approved by NBA as per the comments given by the Expert Committee

3. Reference No: F. No.9-17/2005/Tech

Name of the Applicant : Ministry of Agriculture, Department of Agricultural Research and Education
Type of application : Not submitted in any prescribed format. Collaborative Research Projects
Bioresource : *Brassica juncea*, *Brassica napus* under Oil seed improvement.

Comments: The application was recommended by the committee and be approved by the Government of India as per the extent guidelines for collaborative research projects. The material was accordingly exchanged with the knowledge and accent of Authority.

Approved by NBA as per the comments given by the Expert Committee

4. Reference No: F. No.9-7/2003/Tech

Name of the Applicant : Dr. A. Sait Sahul Hameed
Type of application : Form IV (Transfer of Material) (Collaborative Research Proposal)
Bioresource : *Macrobrachium rosenbergii* (infected freshwater prawn for research)

The committee has recommended the application with the following comments:

1. All the benefits arising out of the research should be shared. This project has the potential commercial value benefit sharing agreement should be signed.

Comments: The committee has recommended the application in view of the Government approved (INDO-FRENCH DEPARTMENT OF SCIENCE TECHNOLOGY supported) Collaborative research Proposal. An agreement prepared by NBA will be executed with the party for benefit sharing as well as not transferring the material/research results to third party.

Approved by NBA as per the comments given by the Expert Committee

5. Reference No: F. No.9-9/2004/Tech

Name of the Applicant : Mr. Chandy C. Thambi,
International Flavours and Fragrances
Type of application : Form I (Access for commercialization) Form IV
(Transfer of Material for commercial purposes)
Bioresource : 35 families, 68 species

The committee has recommended the following:

1. Species access by the applicant to be scaled down to 30 accessions per species.
2. Geographical location of India to be mentioned.
3. The form in which the process is executed is to be mentioned.
4. The committee agrees in principle that such transfer may be executed only on well laid down guidelines including IPR's.

Comments: A letter to this effect may be written to IFF, Chennai get all the particulars mentioned above. This application may be approved with permission to access 30 accessions with an agreement an IPR and Benefit sharing. Transfer of material outside India is not permitted by the committee and the screening or bio prospecting may be done preferably in India with an Indian counterpart.

Approved by NBA with other condition prevailing in other acts 30 accessions with 50 gm each.

6. Reference No: F. No.9-13/2005/Tech

Name of the Applicant : Mr. Gene E. Robinson
Type of application : Form 1 (Access for Bioresource) Research

Bioresource Purpose
: *Apis floralae*, *A. dorsata*, *A. cerana* and *A. mellifera*
(Honey bees)

1. The committee recommends the project.
2. Concerned SBB's be informed appropriately.

Comments: The research is to be carried out by an Indian Dr Moushumi Sen Sharma with Dr Gene E Robinson, USA. An agreement prepared by the NBA for not transferring the material to third party and any commercial benefit to be shared to be executed.

Approved by NBA as per the comments given by the Expert Committee

7. Reference No: F. No.9-18/2005/Tech

Name of the Applicant : Mr. Patrick Martin
Type of application : Form 1 (Access application for research)
Bioresource : Crustaceans Daphnia, copepods, amphipods, larval stages of Diptera, Small fishes, macrophytes, meiofauna.

The committee has recommended the following:

1. There are unlimited numbers of organisms in Tsho Moriri Lake in Ladakh. The sediments are to be collected from which specimens will be further collected.
2. The definition of Soil must be seen in perspective of definition provided under section 2(xxviii) of Plant Quarantine order 2003 (xxviii) "Soil" means earth, sand, clay, silt, loam, compost, manure, peat or sphagnum moss, litter, leaf waste or any organic media that support plant life and shall include ship ballast or any organic medium used for growing plants.
3. Purpose seems to be only collection of Bioresource.
4. The coverage of the project is very wide which include phytoplankton and Zooplankton, other flora and fauna including water samples.
5. Collection of soil must not be permitted.
6. The region of collection of Bioresource is crucial from the point of view of cold water flora and fauna, national security, special region under forest coverage, therefore need of scrutiny from these perspectives is essential.
7. The committee opines that all the specimens collected should first be deposited in an Indian repository and Indigenous Collection (IC) number be allotted to them.
8. The well documented sample duplicates should only be allowed to go out of the country.
9. The collection of samples is restricted to stated species of Crustaceans, larval stages of diptera, small fish and macrophite.
10. The NBA before finally permitting may ensure that the comments are obtained from Prof. Brij Gopal.

Comments: The applicant has to identify an Indian collaborator to get the approval as well as the agreement executed by the NBA. As mentioned by the committee Prof

Brij Gopal is to be contacted for his comments once again. The proposal is recommended with above stated condition.

The members of the Authority did not approve the proposal in the present form unless a reply from Prof Dr Brij Gopal that his university is collaborating with the applicant.

8. Reference No: F. No.9-51/2005/Tech

Name of the Applicant : Ms. Rohini Balakrishnan
Type of application : Form 1 (Access for Research; Collaborative Research Project; Approved by Indo French, DST supported Project)
Bioresource : Cricket species group Gryllinae, Eneopterinae and Phalangopsidae.

The committee has recommended the application for approval with the following comments:

1. To deposit the materials collected in the designated repositories and document to state the claim of national sovereignty.
2. The committee recommends the project for approval.

Government approved (INDO-FRENCH DEPARTMENT OF SCIENCE TECHNOLOGY supported) Collaborative research Proposal. Please find an Indian collaborator to be identified by the applicant to get the approval as well as the agreement executed by the NBA.

Approved NBA as per the comments given by the Expert Committee

9. Reference No: F. No.9-53/2005/Tech

Name of the Applicant : Mr. Eric Smith
Type of application : Form 1 (Access for Research)
Bioresource : Venomous coral snakes

The committee has recommended the application with the following conditions:

1. The committee recommends the project.
2. The research may be restricted to South India.
3. Only 500 specimen to be permitted instead of 2000 species.
4. No more than 3 species from each locality will be permitted.
5. Indian collaborators confirmation to be obtained before permitting the project.

A letter to this effect from NBA to clarify the collaboration will be written. As well the above conditions mentioned by the committee will be intimated to the applicant. Agreement on access for research will be executed by NBA in this regard. The IPR claim on material and knowledge to be vested with the Indian Collaborator

The members of the Authority did not approve the proposal is kept in abeyance.

10. Reference No: F. No.9-54/2005/Tech

Name of the Applicant : Mr. Eric Smith
Type of Application : Form 1 (Access for Research)
Bioresource : Amphibians and Reptiles

The committee has recommended the following:

1. No associated commercial exploitation is allowed either by 1st party or 3rd party transfer.
2. The research may be restricted to South India
3. Only 500 specimen to be permitted instead of 2000 species
3. The Committee recommends the project.
4. Indian collaborators confirmation obtained before permitting the project for approval.

A letter to this effect from NBA to clarify the collaboration will be written. As well the above conditions mentioned by the committee will be intimated to the applicant. Agreement on access for research will be executed by NBA in this regard.

The members of the Authority did not approve the proposal is kept in abeyance.

11. Reference No: F. No.9-55/2005/Tech

Name of the Applicant : International Flavors and Fragrances
Type of application : Form III (IPR- Patending)
Bioresource : *Decalepis hamiltonii* for vanilla flavor

The committee has recommends for approval with an execution of agreement to share benefits arising out of IPR.

An Agreement on IPR to be executed by NBA in this regard. On 12th Dec, 2005 a letter was received from the Company Secretary in connection with seeking approval from the NBA for patent application. In their letter they have confirmed that they will accept the terms and condition as stipulated in the BD Act, 2002. To this effect a reply letter was written in consultation with the Legal Consultant of NBA.

Approved by NBA as per the comments given by the Expert Committee

12. Reference No: F. No.9-56/2005/Tech

Name of the Applicant : Dr. Nuatn Kaushik, TERI
Type of application : Form IV (Transfer of material for Research:
Colloborative Research proposal under INDO-
FRENCH DST supported project) Bioresource:
Bioactive Saponin from *Chlorophytum* sp.

1. The committee recommends the project.

Agreement on Material Transfer will be executed by NBA in this regard

Approved by NBA as per the comments given by the Expert Committee

13. Reference No: F. No.9-64/2005/Tech

Name of the Applicant : Dr. Carden Wallace,
Type of application : Form 1 (Access for Research)
Bioresources : Stag horn corals (Acropora) Schedule 1 of Wildlife Act 1972.

1. Comments to be sought from NIO for collaboration.
2. Permission to collect the Schedule 1 corals will be necessary from concerned authority.

A letter to this effect will be written to NIO for collaboration as well as the permission to collect coral obtained under Wildlife Act 1972 from MOEF from the applicant.

Approved by NBA subject to clearance from the MoEF

14. Reference No F No 9-66/2005

1. Name and address of applicant : Dr. N. W. Fadnavis, Sci.E-II,
Biotransformations Laboratory, Indian Institute
of Chemical Technology, Tarnaka, Hyderabad –
500 007.
Type of application : Form II
Bioresource : Microbial Wild cultures.

COMMENTS: The Committee recommended the proposal in principle. However, the authority be ensured and check with DST that the transfer is under robust MTA and IPRs are properly ensured with the counter part

Approved by NBA subject to confirmation with Department of Science and Technology, New Delhi

Approved by NBA subject to clearance from the DST

15. Reference No : F. No. 9-68/2005

1. Name and address of applicant : Maharashtra Hybrid Seeds Company
Limited (MAHYCO), 4E/15, Ashok Centre, III
floor, Jhandewalan Extension, New Delhi –
110 055.
Type of application : Form II
Bioresource : Parental seeds of Eggplants

COMMENTS: The Cry 1AC gene has been transferred in to an important egg plant from Bangladesh since the source population of RHR-51 has come from MPKV, Rahuri the benefit sharing may be ensured through an agreement and the concerned party ie MPKV, Rahuri may be accordingly intimated. Since this is GM crop the GEAC, Ministry of Environment appropriately may be informed. The proposal was submitted to NBA through CEAC. The committee recommended the proposal.

It was approved by the authority. However, a letter to be addressed to the VC/Director of research to clarify whether they have undertaken an agreement for benefits sharing mechanism. If not the University should enter into an agreement for benefit sharing. The MAHYCO should monitor the third party Transfer. The committee recommended and approved the project

16. Reference No : F. No. 9-69/2005

1. Name and address of applicant : Maharashtra Hybrid Seeds Company Limited (MAHYCO), 4E/15, Ashok Centre, III floor, Jhandewalan Extension, New Delhi – 110 055

COMMENTS: The Cry 1AC gene has been transferred in to an important egg plant from Bari since the source population of RHR-51 has come from MPKV, Rahuri the benefit sharing may be ensured through an agreement and the concerned party ie MPKV, Rahuri may be accordingly intimated. Since this is GM plant the GEAC, Ministry of Environment appropriately may be informed. The proposal was submitted to NBA through GEAC. The committee recommended the proposal.

It was approved by the authority. However, a letter to be addressed to the VC/Director of research to clarify whether they have undertaken an agreement for benefits sharing mechanism. If not the University should enter into an agreement for benefit sharing. The MAHYCO should monitor the third party Transfer. The committee recommended and approved the project.

17. Reference No : F. No. 9-70/2005

1. Name and address of applicant : Maharashtra Hybrid Seeds Company Limited (MAHYCO), 4E/15, Ashok Centre, III floor, Jhandewalan Extension, New Delhi – 110 055

COMMENTS: The Cry 1AC gene has been transferred in to an important egg plant from Los Banos (UPLB)- Philippines since the source population of RHR-51 has come from MPKV, Rahuri the benefit sharing may be ensured through an agreement and the concerned party ie MPKV, Rahuri may be accordingly intimated. Since this is GM plant the GEAC, Ministry of Environment appropriately may be informed. The proposal was submitted to NBA through GEAC. The committee recommended the proposal.

It was approved by the authority. However, a letter to be addressed to the VC/Director of research to clarify whether they have undertaken an agreement for benefits sharing mechanism. If not the University should enter into an agreement for benefit sharing. The MAHYCO should monitor the third party Transfer. The committee recommended and approved the project.

7. MEASURES TAKEN IN RESPECT OF INTELLECTUAL PROPERTY RIGHTS RELATED TO GENETIC RESOURCES AND ASSOCIATED KNOWLEDGE

Interactive meeting on Intellectual Property Rights:

National Biodiversity Authority conducted an interactive meeting to discuss the role of the National Biodiversity Authority (NBA) in Intellectual Property Rights (IPR) Management related to Biodiversity. Venue: Conference Hall, National Biodiversity Authority, Chennai, on 06-09-2005.

Peoples Biodiversity Register:

The Biological Diversity Act, 2002 mandates all local bodies in the country, Gram, Taluk, and Zilla Panchayats, Town Municipalities and City Corporations, to establish Biodiversity Management Committees (BMC). These BMCs would have the responsibility of documenting comprehensive information on availability and knowledge of local biological resources, their medicinal or any other use or any other traditional knowledge associated with them; data about the local *vaid*s and practitioners using the biological resources; and details of the access to biological resources and traditional knowledge granted, details of the collection fee imposed and details of the benefits derived and the mode of their sharing.

The Biological Diversity Rules, 2004 stipulate that the National Biodiversity Authority shall take steps to specify the form of the PBRs and the particulars it shall contain and the format for electronic database; and that the National Biodiversity Authority and the State Biodiversity Boards shall provide guidance and technical support to the BMCs for preparing the PBRs. For the preparation of the PBR a uniform methodology is to be prepared. In this context, the Centre for Ecological Sciences (CES) at the Indian Institute of Science, was asked to take part in formulating this programme. It has conducted pilot exercises of preparation of PBRs in a number of Gram Panchayats, as also conducted five Regional Workshops to discuss the methodology of PBR preparation. Assimilating all this experience, Prof. Madhav Gadgil and his team prepared a methodology manual which was discussed at length in an interactive workshop organized by the National Biodiversity Authority, Chennai on 30th June, 2005 and subsequently a National Workshop was organized by National Biodiversity Authority at Anna University on 22nd and 23rd June, 2006 to finalize the methodology manual.



8. APPROVAL GRANTED BY THE AUTHORITY FOR ACCESS OF BIOLOGICAL RESOURCES

1. File No.: 9/1A/03/TECH
Applicant: Smt. A.G. Indika Lakmini, Jay Health Foods, Colombo.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/1A/05/TECH/5962 dt.24-02-2006
2. File No.: 9/7/03/TECH
Applicant: Dr. A. Sait Sahul Hameed, Reader, C. Abdul Hakeem, College, Vellore.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/7/03/TECH/5964 dt.24-02-2006
3. File No.: 9/9/04/TECH
Applicant: IFF, Chennai.
Status: **Pending for approval**
Reason: To be confirmed by the applicant
 1. On the Geographical location of the species
 2. Form in which the process is to be executedLetter sent: Letter no.9/9/04/TECH/5963 dt.24-02-2006
4. File No.: 9/10/04/TECH
Applicant: IFF, Chennai.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/10/04/TECH/5968 dt.24-02-2006
5. File No.: 9/13/04/TECH
Applicant: Mr. Gene Robinson, Director, Neuroscience Program, University of Illinois, USA.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/13/04/TECH/5965 dt.24-02-2006
6. File No.: 9/15/04/TECH
Applicant: Dr. Priyadarsanam Dharmarajan, Scientist, ATREE, Bangalore.
Status: **Pending for approval**
Reason: 1. To take help from Government Research Institutions
2. Specimen deposited in repository
Letter sent: Letter no.9/15/04/TECH/5959 dt.24-02-2006
7. File No.: 9/18/05/TECH
Applicant: Mr. Patrick Martin, U.G. Student, University of York, U.K.
Status: **Not considered**
Reason: Not identified Indian Collaborator
Letter sent: Letter no.9/18/05/TECH/5966 dt.24-02-2006
8. File No.: 9/51/04/TECH
Applicant: Dr. Rohini Balakrishnan, Ass. Prof., IISC, Bangalore..
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/51/04/TECH/5958 dt.24-02-2006

9. File No.: 9/53/05/TECH
Applicant: Dr. Eric Smith, University of Texas, USA.
Status: **Not considered**
Reason: Not identified Indian Collaborator
Letter sent: Letter no.9/53/05/TECH/5956 dt.29-02-2006
10. File No.: 9/54/05/TECH
Applicant: Dr. Eric Smith, University of Texas, USA.
Status: **Not considered**
Reason: Not identified Indian Collaborator
Letter sent: Letter no.9/54/05/TECH/5966 dt.29-02-2006
11. File No.: 9/55/04/TECH
Applicant: IFF, Chennai.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/55/04/TECH/5969 dt.24-02-2006
12. File No.: 9/56/05/TECH
Applicant: Dr. Nutan Kaushik, Fellow, TERI, New Delhi.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/56/05/TECH/5957 dt.24-02-2006
13. File No.: 9/64/05/TECH
Applicant: Dr. Carden Wallace, Principal Researcher, Museum of Tropical Queensland, Australia.
Status: **Pending for approval**
Reason: Permission from MoEF to collect Corals
Letter sent: Letter no.9/64/05/TECH/5966 dt.24-02-2006
14. File No.: 9/66/05/TECH
Applicant: Dr. Fadnavis, ICT, Hyderabad.
Status: **Pending for approval**
Reason: To be confirmed by the applicant whether the project has been approved by CSIR / DST.Letter sent: Letter no.9/66/05/TECH/5961 dt.24-02-2006
15. File No.: 9/68/05/TECH
Applicant: Dr. Usha B. Zehr, Joint Director Research, MAHYCO, Mumbai.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/68/05/TECH/6118 dt.07-03-2006
16. File No.: 9/69/05/TECH
Applicant: Dr. Usha B. Zehr, Joint Director Research, MAHYCO, Mumbai.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/69/05/TECH/6118 dt.07-03-2006
17. File No.: 9/70/05/TECH
Applicant: Dr. Usha B. Zehr, Joint Director Research, MAHYCO, Mumbai.
Status: **Approved**. Agreement to be sent to the applicant once the agreement is ready.
Approval letter sent: Letter no.9/70/05/TECH/6118 dt.07-03-2006

9. AWARENESS RELATING TO THE INTELLECTUAL PROPERTY RIGHTS AND PUBLIC PARTICIPATION

1. An interactive workshop on “Conservation and sustainable utilization of Marine Bioresources” on 14th June 2005 conducted jointly with Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai. During the workshop 20 theme papers on different issues of Marine biodiversity and Marine bioresources. Conservation were presented and discussed.
2. A one day interactive workshop on the Implementation of Peoples Biodiversity Registers (PBR) at the Village level was organized by National Biodiversity Authority on 30th June, 2005. Twenty scientists from various parts of India participated and discussed in detail. The recommendation was drafted for effective implementation. The recommendations are placed before the Authority for discussion.



A View of Members present in this meeting at Koodal Hall, Anna University



Prof. S. Kannaiyan delivered lecture in the meeting



Prof. S. Madhav Gadgil's presentation in the meeting

3. Interactive Discussion meeting on “Intellectual Property Right and Biodiversity Act, 2002” organized by National Biodiversity Authority held on 6th September, 2005 at Conference hall, National Biodiversity Authority, Chennai.



Members present in the Interactive Discussion meeting on “**Intellectual Property Right and Biodiversity Act, 2002**” at Conference Hall, National Biodiversity Authority

4. “National workshop on involvement of taxonomists in biodiversity and bio-resources conservation and formation of People’s Biodiversity Registers” organized by National Biodiversity Authority, Chennai. Date: 19.09.2005, Venue: NBA Conference Hall, Chennai.
5. “Exhibition on marine faunal diversity- amazing world of animals – an exposition.” organized by National Biodiversity Authority and MBS, Zoological Survey of India, Chennai. Date: 26 – 29th, October, 2005 Venue: Marine Biological Station, ZSI, Chennai.
6. “A workshop on awareness creation on biodiversity and conservation of mushrooms” organized by National Biodiversity Authority, Chennai and Indhira Gandhi Agricultural University, Raipur. Date: 1 – 2nd December, 2005. Venue: College of Agriculture, IGAU, Raipur.
7. “Marine biodiversity of Gulf of Mannar and Palk Bay in Tamilnadu” organized by National Biodiversity Authority and Aquaculture Foundation of India, Chennai. Date: 17 - 18.12.2005. Venue: M.G.Mahal, Madurai Road, Ramanathapuram.
8. “National symposium on conservation and valuation of Marine Biodiversity” organized by National Biodiversity Authority and Zoological Survey of India. Date: 26 – 29th Dec, 2005. Venue: Marine Biological Station, ZSI, Chennai.
9. “National conference on Agrobiodiversity” organized by National Biodiversity Authority on 12th Feb – 15th Feb, 2006 at NIOT Campus, Pallikaranai, Chennai.
10. “National conference on Forest Biodiversity Resources: Exploitation, Conservation and Management” organized jointly by National Biodiversity Authority and Centre for Biodiversity and Forest Studies, School of Energy, Environment and Natural Resources on 21-23 March 2006.

10. REGULATION ISSUED UNDER SECTION 64 OF THE BIOLOGICAL DIVERSITY ACT, 2002

Annual Report and Annual Statement of Accounts

SO 1689 (E) In exercise of the powers conferred by sub section 1 (and classes) (g) and (h) of sub section 2 of Section 62 read with Sections 28 and 29 of the Biological Diversity Act, 2002 (18 of 2003) the Central Government makes the following rules namely National Biodiversity Authority Rules 2005 (Annual Report and Annual Statement of Accounts).

5th December 2005.
F. No 22018/46/2003-CSC/BC
Desh Deepak Verma,
Joint Secretary,
Ministry of Environment and Forests,
New Delhi 110 003.

The following regulations are under final stages preparation for notification:

- (1) Guidelines for International Collaborative Research Projects.
- (2) Agreements:
 - I. Access for Research
 - II. Access for Commercial Utilization
 - III. Transfer of Research Results
 - IV. Intellectual Property Rights
 - V. Material Transfer



11. FINANCE AND ACCOUNTS OF THE AUTHORITY

Grants in Aid sanctioned from Ministry of Environment and Forests for the year 2005 – 2006

S. No	Grants in Aid	Amount (Rs. in Lakhs)
1.	Salary and Wages	28.00
2.	Equipment & Furniture	10.00
3.	Office Expenses/Contingency	15.00
4.	Website and Computers	10.00
5.	Authority/Expert Meeting Expenses	8.00
6.	Rent and Taxes	7.30
7.	Travel	10.00
8.	Books	3.70
9	State Biodiversity Board	100.00
	Total	192.00

Expenditure Statement for the year 2005 – 2006

Grants in aid	Revalidated from 2004 - 2005	Funds received 2005 – 2006	Expenditure up to March 2006
Office Expenses /Contingent Expenses	4,80,165	10,00,000	17,07,758
Wages	72,053	9,00,000	10,83,608
Websites & Computers	38,890	4,00,000	4,68,585
Rent/Rates/Taxes	1,02,165	6,00,000	7,59,495
Office Equipments and Furniture	2,05,987	6,00,000	7,83,862
Travelling Expenses	85,455	7,00,000	9,13,939
Awareness Projects	Nil	36,00,000	36,88,141
Authority / Expert Committee Meeting	Nil	16,00,000	14,48,529
State Biodiversity Board	Nil	30,00,000	30,00,000
Library	1,70,514	1,00,000	1,38,350
Total	11,55,229	1,25,00,000	1,39,92,267

RECEIPTS:

Interest received on Short Term Deposit of Grants in aid: Rs. 30,589.00

Receipts of application fees : Rs. 9,768.00

12. ANNUAL PLAN OF THE FOLLOWING YEAR

Authority meetings:

National Biodiversity Authority is established under section 8 of the Biological Diversity Act, 2002. The major objectives of the National Biodiversity Authority is to regulate access to biological resources of the country and conserve and sustainable use of biological diversity; to respect and protect the knowledge of local communities related to biodiversity; to secure sharing of benefits with local people as conserves of biological resources and holders of knowledge and information relating to the use of biological resources; protection and rehabilitation of threatened species; involvement of institutions of state government in the broad scheme of implementation of the Biological Diversity Act, 2002 through constitution of expert committees. As per Section 12 of the Biodiversity Act, 2002 and Rule 10 of the Biological Diversity Rule 2004, the authority shall meet at least four times a year normally after a period of three months at the head quarters of the authority or at such place as may be decided by the Chairperson.

Four authority meetings are proposed for the year 2005-2006:

- 6th authority meeting April 20th 2006
- 7th authority meeting July 20th 2006
- 8th authority meeting October 20th 2006
- 9th authority meeting January 20th 2007

Technical:

1. Peoples Biodiversity Register:

As per sub rule 8 of Rule 22 of the National biodiversity Authority shall take steps to specify the form of the People's Biodiversity Register and the particulars it should contain and the format for electronic database.

For the above purpose a uniform methodology is to be developed by NBA and support the BMC's to follow the same. The people's knowledge such as knowledge of uses that might find commercial application and that might need to be guarded with respect to IPR and the knowledge pertinent to prudent management of natural resources that might be widely shared with benefit to all concerned without any unfair commercial profits accruing to any party are to be registered by the locals. NBA will take efforts to finalise the methodology manual to be followed by the BMCs of different states.

2. Collaborative Research Guidelines:

To facilitate the implementation of section 5 of the Biological Diversity Act, 2002 relating to Collaborative research projects involving transfer or exchange of biological resources or information relating thereto between institutions including government sponsored institution and such institutions in other countries. In consideration of the fact that

collaborative research projects have been exempted from obtaining approval of the National Biodiversity Authority established under section 8 of Biological Diversity Act, 2002, and that the transfer and exchange of biological resources cannot be ruled out in such projects, these guidelines will be prepared and submitted to the Ministry of Environment and Forests for notification in compliance with Section 5 3(a) of Biological Diversity Act, 2002 for such research projects.

3. Agreements for access for research, agreements for commercial purpose, Transfer of Research Results, Intellectual Property Rights and Material transfer:

As per Rule 14, 17, 18 and 19 of the Biological Diversity Rules 2004, NBA shall receive applications for Access, Application for Transfer of Bioresource and application for Patent. The received applications shall be scrutinized by a committee of experts and the recommendations of this committee will be put up to the authority for approval. After the approval, the applicants have to enter into an agreement as per the requirement of the Act.

The following are the agreements to be prepared by National Biodiversity Authority.

1. Access of bio-resources for commercial purposes
2. Access of bio-resources for research and bio-survey
3. Transfer of Research Results (Technology)
4. IPR (Patent)
5. Material Transfer

The draft agreements will be discussed thoroughly by NBA in an interactive meeting with experts drawn from various parts of the country and the agreements will be placed before a NBA approved committee for scrutiny and approval. These approved agreements will be sent to the Government of India (Administrative Ministry) for notification by Law Ministry.



13. ANY OTHER IMPORTANT MATTER DEALT BY THE AUTHORITY

STATUS OF STATE BIODIVERSITY BOARDS

State Biodiversity Boards notified the establishment (till March 2006)

SNo.	Name of the State	Notification No. and Date
1.	Karnataka	No. FEE 125 ENV 2003, Bangalore dated 21 st November, 2003
2.	Goa	No. 7/17/92/STE/PART/858 dated 2 nd December, 2004
3.	Madhya Pradesh	No. F. 1-2/2003/LVII-Bhopal dated 17 th December, 2004
4.	West Bengal	No. EN/100/T-II-7/003-i/2003 dated 17 th January, 2005
5.	Punjab	No. 2/41/2000-STE (1)/3942 dated 23-1-2004
6.	Kerala	G.O.(MS) No.01/2005/STED dated 28 th February 2005
7.	Arunachal Pradesh	No.For.262/D-4/04/6421-80 dated 15 March 2005
8.	Nagaland	No.For-Works-11/04 dated Kohima, 14 th March 2005
9.	Himachal Pradesh	No. STE-A(3)-1/2004 dated Shimla - 14.02.2005
10.	Mizoram	No.A.36016/96-FST dt.17-01-2006
11.	Chattisgarh	No.8-21/2005/12 dt.16-02-2006
12.	Sikkim	No. 20/HOME/2006 dt.07-03-2006

Particulars of Sanction of One Time Grant for State Biodiversity Boards

SL.N O.	NAME OF THE STATE	GRANTS IN AID (Rs IN lakhs)	REMARKS
1	Karnataka	10.00	UC and Statement of Accounts received for Rs. 10/- lakhs
2	Madhya Pradesh	10.00	UC received only for Rs.5/- lakhs only. Statement of Accounts to be received for Rs. 10/- lakhs
3	Punjab	10.00	UC and Statement of Accounts to be received for Rs. 10/- lakhs
4	Goa	10.00	UC and Statement of Accounts to be received for Rs. 10/- lakhs
5	West Bengal	10.00	UC and Statement of Accounts to be received for Rs. 10/- lakhs
6	Nagaland	5.00	Balance Rs. 5/- lakhs to be paid. UC and Statement of Accounts received for Rs. 5/- lakhs.
7	Kerala	5.00	Balance Rs. 5/- lakhs to be paid after receiving UC and Statement of Accounts to be received for Rs. 5/- lakhs.

14. ACTIVITIES OF STATE BIODIVERSITY BOARDS

1. KARNATAKA BIODIVERSITY BOARD

1. The Karnataka Biodiversity Board had three Board Meetings on 04-04-2005, 01-07-2005 and 21-11-2005 and taken various decisions.
2. As per the Biological Diversity Act, 2002, action was taken up with the Rural Development and Panchayath Raj Department for the constitution of Biodiversity Management Committees at all Grama Panchayaths of the State. The Secretaries to Government, Rural Development and Panchayath Raj Department were pleased to issue necessary Circular instructions to all the Chief Executive Officers of the Zilla Panchayaths. Accordingly in the first phase, 10 Districts have responded and 472 Biodiversity Management Committees have been constituted at Gram Panchayath level apart from two Biodiversity Management Committees at Town Panchayaths.
3. The main function of the Biodiversity Management Committees is to prepare the Peoples Biodiversity Registers. The Member Secretary and Executive Officers of the Karnataka Biodiversity Board have taken part in imparting Training in the preparation of Peoples Biodiversity Registers. Financial assistance for few Biodiversity Management Committees have also been extended by this Board.
4. The Karnataka biodiversity Board has constituted the following Expert Committees:
 - Agriculture and Horticulture
 - Animal Husbandry and Fisheries
 - Medicinal Plants
 - Intellectual property RightsThese expert committees have convened their first meetings and action is being taken on the decisions by the Board.
5. The draft Karnataka Biological Diversity Rules, 2005 prepared by this Board has been scrutinized by the Law Department and it is under process at Government level to be placed before the legislature to get the assent as per sec 63 (3) of the Biological Diversity Act, 2002.
6. The Board has so far received Rs.45,00,000/- assistance from the KUIDFC out of the sanctioned grant of Rs.94,50,000/- for the Conservation and Management of Biodiversity in Coastal Districts of Karnataka. Four major agencies have been identified for implementation of the following activities:-
 - Survey of flora & Livestock Biodiversity of Coastal Area
 - Survey of Marine Fauna, Flora, Birds & Butterfly Biodiversity
 - Preparation of Karnataka Coastal Biodiversity Information Systems
 - Preparation of Peoples Biodiversity Registers
 - Capacity Building of stake holders on Biodiversity related issues.

The agencies are (1) Environmental Management and Policy Research Institution, (2) Karnataka Biodiversity Board (3) Central Marine Fisheries Research Institute (4) Indian Space Research Organization. These agencies have taken action as per the work plan in the right direction. 22 BMCs have identified for preparation of Peoples Biodiversity Registers and suitable funds have been released.

7. The Board has conducted several Ayurveda Melas- (In association with several NGO's and institutes), wherein awareness on importance of medicinal plants, Herbal home remedies and local traditional knowledge systems to general public and distributed Medicinal Plants for cultivation in kitchen gardens for domestic and primary health care.
8. The Board has initiated the training programmes on Biodiversity related issues apart from capacity building of stakeholders like District Officers Members of Zilla Panchyaths Taluka Panchayaths, school/college teachers and students.
9. The Board has also initiated measures to popularize Biodiversity of Karnataka through, media like AIR, Doordarshan, private local TV channels and print media.
10. The Board is extending financial assistance to 10 Biodiversity Management Committees coming under the Kuvempu Memorial Bio-park for the preparation of Peoples Biodiversity registers and imparting Training to the Members of the Biodiversity Management Committees, teachers and students, Under Kuvempu Memorial Bio-park project funded by state Government. Further, Development of Kuvempu Matsyadhama at Chippalagudda and Kuvempu Sandeshavana have been taken up in the Bio-park.
11. A state level seminar on Conservation of Biodiversity was held at Haveri in association with Gudleppa Hallikeri Colloge, Haveri. A National level seminar on Bird Ecology and conservation was also held in Bangalore in association with Institute for Natural Resources Conservation, Education, Research and Training, Bangalore.
12. In collaboration with the State Fisheries Department and College of Fisheries, the Board has participated in the State Level workshop on "Ichthyofaunal Biodiversity in Aquatic systems of Karnataka" at College of Fisheries, Mangalore.



2. WEST BENGAL BIODIVERSITY BOARD

The West Bengal Biodiversity Board was formed as an outcome of the notification of the Department of Environment, Government of West Bengal on 16th September 2004 under the Chairmanship of Prof. A. K. Sharma. With the establishment of the Board, the State officially enters into the arena of biodiversity documentation and conservation, ensuring sustainable use of bio-resources and equitable sharing of benefits arising out of the use of bio-resources.



A two-day workshop on “Biodiversity Conservation: Current issues and challenges in West Bengal” was held during June 10-11, 2005 at Paribesh Bhawan, Salt Lake. The main objectives of the workshop was to (i) understand the basic concept of Biodiversity; (ii) adopt the ‘best suited technique’ for documenting biodiversity in the state; (iii) review the existing PBR models and adopt the ‘best suited model’ for the state.

In compliance with the objective of the Board of documenting bio-resources, the Board initiated the formation of Biodiversity Management Committees (BMCs) in five major ecological zones of West Bengal during 2005-2006, namely Hill area in Darjeeling District, Terai area in Jalpaiguri District, Laterite area in Bankura District, Gangetic Plains in Hooghly District and Coastal area in 24 Parganas South District.



The Workshops for initiating People’s Biodiversity Registers (PBR) have been held during 2005-2006 at Champasari GP - District Darjeeling, Paschimpara GP – District Hooghly, Pathar Pratima GP – District 24 Parganas (S). The PBR work is in progress in all the mouzas of the above mentioned Gram Panchayats and the work is being regularly monitored by the Board officials.

The Board has initiated Sensitization Programmes regarding Biodiversity documentation, conservation and sustenance, in colleges of Kolkata and other Districts. Eight such colleges throughout West Bengal were selected for conducting the workshops during 2005-2006. The objective of these programmes is to encourage participation of college students and teachers in post workshop exercises especially in PBR works.



The Board participated in the 'Paribesh Mela' organized by the West Bengal Pollution Control Board and the Bengal Chamber of Commerce during 22 – 26 February 2006. The West Bengal Biodiversity Board's stall with immense information and attractive display items received acclaim from public and media alike.

The Board officials have participated as Resource Persons in a number of Nature Study Camps organized by various NGOs and other Organisations during the period 2005-2006.



3. PUNJAB BIODIVERSITY BOARD

The Punjab Biodiversity Board (PBB) was notified on 23.12.04 under the chairmanship of Chief Minister, Punjab. The Vice-Chairman is Parliamentary Secretary, Agriculture. The board comprises five ex-officio members: Chief Secretary Principal Secretary, Science, Technology & Environment Financial Commissioner, Development, Principal Secretary, Forests & Wildlife and Director, Environment, Punjab State Council for Science & Technology as member convener. Five experts include representatives from Zoological Survey of India, Botanical Survey of India, Punjab Agriculture University Brig. Sukhjit Singh (formerly Maharaja of Kapurthala, a well known wildlife conservationist and environmental activist) and Dr. G.S. Kalkat (former Vice-Chancellor, Punjab Agriculture University and renowned agriculturist). The secretariat of the board lies in PSCST, which provides technical assistance to the Secretary, Science, Technology & Environment on matters related to science, technology and environment.

The following activities have been pursued during the period 2005-06:

1. Meeting of PBB

First meeting of Punjab State Biodiversity Board. was held on 18.01.2006 under the chairmanship of Parliamentary Secretary, Agriculture, Government of Punjab who is the Vice-Chairman of the Board.

2. Draft Biodiversity Rules

Draft State Biodiversity Rules were prepared and put up to the Board for approval. The rules are broadly approved by PBB members. The Department of Forests & Wildlife is scrutinizing the same w.r.t. provisions under Forest Act, 1988 and Wildlife Act, 1993. A copy of the draft rules was also submitted to NBA so that, if required, clarifications/modifications can be incorporated, before submitting the same to Legal Remembrancer, Punjab for vetting prior to being placed before the State Legislature. for approval.

3. Celebration of International Biodiversity Day

(i) International Biodiversity Day (2005) was celebrated on 22nd May, 2005. The following programmes were taken up:

- State level essay and poster competition on Biological Diversity was organized for 1700 Eco-club students from schools all over the state.
- More than 250 entries were received. Thirty best entries (five for each category) for poster & essay (English & Punjabi) from rural and urban school eco-clubs were awarded. The list of prizewinners is placed at Annexure-I. Scientific Calculators (provided by UNESCO) were given away as prizes during the State Science Fair organized by State Institute of Science Education, Punjab.
- About 90 NGOs and schools/institutions were motivated to celebrate International Biodiversity Day. Institute of Ecology and Environment, Pathankot, Global College of Pharmacy, Ropar and Shivalik College of Pharmacy, Nangal organized lectures and exhibitions on biodiversity.

- Atma Ram Jain Girls Sr. Sec. School, Khanna, Jain High School, Khanna, Shastri Model School, Mohali, SD Sr. Sec. School, Sham Chaurasi and Government High School, Gobindpur Khunkhun, Hoshiarpur organized debates, skits on biodiversity, essay and poster competitions.

4. Database Development

The following data bases have been compiled:

(i) 'State Biodiversity Strategy and Action Plan' has been published by PSCST and a copy has been submitted to NBA. The Board has compiled the following information from secondary data:

- List of wild and domesticated flora and fauna in Punjab.
- List of Pre and Post Green revolution crop varieties used in Punjab.
- List of rare and threatened animals in Punjab.
- List of Protected areas in Punjab

The information has been uploaded on the website in www.punenviis.nic.in in collaboration with ENVIS center.

(ii) PSCST had taken up a study of Shivalik area of Punjab from 1998 to 2003 in collaboration with BSI, ZSI, IIRS and P AU. The report is under print. The following data w.r.t. wild flora and fauna in the Shivaliks has been compiled and put up to Punjab Biodiversity Board Members for their information List of Biodiversity rich areas in Punjab Shivaliks.

- List of economically important and medicinal plants of Shivalik area.
- Importance Value *of* important plant species.
- Lists of major flora and fauna of Punjab Shivaliks, along with information on their common / rare / threatened / endemic status, their diagnostic features and general distribution in the area.
- Assessment of reasons for Biodiversity loss These include urbanization & industrialization in Shivalik area, habitat fragmentation & loss, invasion of alien species, illegal hunting & over exploitation of resources.

(iii) PSCST has published 'State of Environment- Punjab' in 2005, which discusses the issues on Biodiversity conservation in the state at great length:

- It comprises a chapter on Biodiversity, which provides information on existing information w.r.t. Biodiversity conservation in the state and discusses the driving forces, which affect biodiversity in the state, the pressures on the ecological system, the current status, impacts and responses by the Government
- A copy of the report has been submitted to National Biodiversity Authority. Copies have also been submitted to MoEF, GoI

(iv) PSCST is nodal agency for wetland conservation in Punjab, which has 3 Ramsar sites (Harike, Kanjli and Ropar). The Ranjit Sagar Wetland has also been recently identified as a wetland of national importance at the instance of Hon'ble Governor of Punjab (This wetland falls with the states. of Punjab, J&K and Himachal Pradesh). Following information compiled by the council, is available with PBB:

- List of natural and man-made wetlands in the state of Punjab
- Data on flora and fauna of three important wetlands; Harike, Kanjili and Ropar along with information on their common/rare/threatened/endemic status, their diagnostic features and general distribution in the area.
- Biodiversity in five wetlands of state importance.

5. Biodiversity Information System

The above data has been consolidated in collaboration with ENVIS Centre, PSCST and a Biodiversity Information System has been set up. The information has been put up to PBB members and has been uploaded on net. A searchable on-line data base has been developed, which is available on the above site. This includes:

- On-line searchable data base for Shivaliks (Searchable by Family, Genus and Species name and district wise distribution).
- On-line data base for Biodiversity outside Shivaliks (including cultivated crop varieties).

6. New Proposals

A proposal for workshop on "Facilitating formation of State Biodiversity Boards & Biodiversity Management Committees in Northern India" was prepared and submitted to NBA, which has been approved. Funds are yet to be released.

7. Funds

Rs.10 lacs have been received from National Biodiversity Authority, Chennai as seed money. A proposal for financial support from the State Government was submitted for 2005-06 and 2006-07. The same is pending before the State Planning Board.

8. Miscellaneous

- Project Associate (ENVIS) attended National Conference on 'Agro biodiversity organized by NBA in Feb, 2006.
- Project Associate (ENVIS Centre) participated in the "National Conference on Agrobiodiversity" organized by National Biodiversity Authority in February, 2006.
- Information about constitution of the Board was advertised through press. A Press-conference was taken by Principal Secretary, Department of Science, Technology and Environment, on 12.08.05 for the same purpose.

Future Activities Proposed

1. A workshop on 'Facilitating formation of State Biodiversity Boards & Biodiversity Management Committees in Northern India' .is proposed to be organized in July/ August, 2006.
2. International Biodiversity Day will be celebrated on/around May 22, 2006:
3. A massive "Biodiversity awareness and capacity building programme" is proposed to be organized. Various target groups, which would be involved, are:
 - Panchayats
 - NGOs Teachers
 - Students
 - General public
 - District level functionaries
4. Meetings of PBB and expert committees would be organized.
5. Action will be taken for constitution of BMCs in the State. For this, BDOs from the State will be oriented towards biodiversity awareness, SBSAP, constitution of BMCs, Role and activities of BMCs.
6. Literature on Biodiversity of Punjab in the form of brochures will be prepared to be distributed among masses to disseminate Biodiversity education and awareness.
7. The Biological Diversity Act, 2002 and Biological Diversity Rules, 2004 will be translated in Punjabi.

4. KERALA BIODIVERSITY BOARD

As per the provisions of the Biodiversity Act 2002 of Government of India the Science, Technology and Environment Department (STED), Government of Kerala constituted the Kerala State Biodiversity Board (KSBB) in October, 2003 and the notification constituting the Board was made in February 2005 [GO (Ms) No. 1/2005/STED dated &.2.2005]. Initially the board was incubated under STED/Kerala State Council for Science Technology and Environment (KSCSTE), and subsequently transferred to the newly constituted Environment Department [vide order GO (Ms) No.64/2006/GAD dated 5.2.2006]. The headquarters of the Board is at the state capital, Thiruvananthapuram.

Board's Meetings and Actions

Seven meetings of KSBB were held during the year 2005-06 and following decisions were made.

- i) The administrative Headquarters of Kerala State Biodiversity Board shall be at Sasthra Bhavan, Thiruvananthapuram.
- ii) The draft Kerala Biological Diversity Rules, already vetted by the Law Department were reconsidered by the Board and modified draft Rules were hosted on the website of KSCSTE, for receiving comments from the public. The draft Rules after incorporating comments from the public were recommended for approval. The Draft Rules both in English and Malayalam were forwarded to the Law Department after concurrence was received from the National Biodiversity Authority.
- iii) The Board decided to appoint Dr. J.K. Sharma, Director, KFRI and Member, KSBB as the Member-Secretary with immediate effect.
- iv) The Board decided to approve conduct of series of awareness workshops on biodiversity for Panchayath Presidents to be organized by KFRI and KILA and biodiversity documentation (based on secondary data) at district level, guidelines for the constitution of BMC (in English and Malayalam), and preparation of People's Biodiversity Registers (PBRs).
- v) The Board decided to recommend the proposal to recognize KFRI as one of the Regional Centres of the National Biodiversity Research Institute, Chennai to National Biodiversity Authority.
- vi) The Board decided to link the activities of the Board with the Environment Policy as well as policies of other related departments/agencies such as Pollution Control Board, Agriculture, Forest, Fisheries, Animal Husbandry, etc. which will bring in holistic approach, for which the Board will prepare short and long-term Strategic Actions.
- vii) A special meeting of KSBB was held on 9th February, 2006 at Sasthra Bhavan, Thiruvananthapuram, which was attended by Prof. S. Kannaiyan, Chairman, NBA and Dr. K. Venkataraman, Member Secretary, NBA.

Technical Programmes

The board identified KFRI as the Technical Wing for implementing its technical programmes and established a Biodiversity Technical Programme Coordination Committee (BTPCC) of the Board at KFRI, chaired by the Director, KFRI with a Senior Scientist, Dr. K.K.N. Nair, a plant taxonomist as the Programme Coordinator. BTPCC has initiated three programmes of KSBB, and the progress made during 2005-06 is given below.

- (i) **BTPC Facility in KFRI:** The BTPC facility was established at KFRI. The project staff for all the technical programmes was selected and appointed. All computer files of KSBB activities have been transferred to the BTPC facility, and further course of action has been chalked out after a meeting of all PIs and project staff.
- (ii) **Biodiversity Documentation at District level:** Of the seven districts -- Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Idukki, Ernakulam, Thrissur . and Kasargod identified for biodiversity documentation during 2006-2007 by the board, the work for Thrissur district was initiated under various Principal Investigators, covering topics such as animal diversity (wild and domesticated), forest plant diversity, domesticated plant diversity, traditional knowledge and intellectual property rights, and biogeography-GIS and Data Base. The secondary data available from the Thrissur District from all the sources was collected for biodiversity documentation. The format for data collection was prepared, and the software Bio-Geographical Information System (BGIS) developed by CESS is being used to document the data.
- (iii) **Biodiversity Awareness Workshops for Panchayath Presidents:** An awareness programme for Panchayath Presidents of all local bodies was planned in collaboration with KILA. Two awareness workshops in two batches each of Panchayath Presidents were conducted at KILA on 8th and 11 th of March, 2006. Subsequent trainings, postponed due to the Assembly Elections in the State, will be resumed during June 2006.

Publications

A hand book on biodiversity titled "*Jaiva Vaividhyam*" was published by KSBB for imparting awareness to Presidents of all local bodies in Kerala.

New Programmes Proposed to be Taken up During 2006-07

1. Trainer's Training of Resource Persons involved with the preparation of People's Biodiversity Registers at KILA.
2. Establishment of five model BMCs in selected Panchayaths.
3. Preparation of People's Biodiversity Register by selected BMCs.
4. District level workshops in seven districts on biodiversity awareness, exhibition, preparation of film on biodiversity, brochure, etc.
5. Printing of Kerala Biological Diversity Rules in English and Malayalam. 6. Procurement of literature on biodiversity: Books, CDs, etc.
6. Designing and hosting of the website of Kerala State Biodiversity Board.
7. Research programmes on the thrust areas identified in State Biodiversity Strategic Action Plan for Kerala approved by the Ministry of Environment & Forests, Govt. of India.

Proposals sent to NBA

A proposal for establishing one of the regional centres of National Biodiversity Research Institute at KFRI and a proposal for establishment of model BMCs in 14 Panchayaths have been submitted to NBA for funding.

Grants Received from NBA

The KSBB received a grant of Rs. 500,000/- (rupees five lakhs only) on November 5, 2005 of the 10 lakhs sanctioned for infrastructure development.

5. MADHYA PRADESH BIODIVERSITY BOARD

The activities during the year aimed at fulfillment of the mandate translating into actions in thematic areas of

- Documentation
- Education, awareness and training
- In-situ and ex-situ conservation
- Sustainable use and equitable benefit sharing
- Governance
- Policy and law

The following sections give a glimpse of the various activities of the Board towards furtherance of the mandate.

I. Documentation and Research

Peoples Biodiversity Registers (PBR) have been initiated through PBR workshops in five eco-regions namely Chambal, Malwa, Nimar, Satpuda and Bundelkhand.

Research projects have been commissioned on various thematic areas.

- Documentation of Phyto- diversity of Chambal, Malwa, Satpuda and Bhopal region including status of Rare, Endemic and Threatened species.
- Eco-regional threat assessment of key medicinal plant species including Rare, Endemic and Threatened species through CAMP methodology
- Research project on Chousinga (4 homed antelope)
- Status survey of Forest Owlett
- Assessment of fish diversity in Narmada water stretches
- Ascertaining status of Kharmor (Lesser Florican) in Sailana, Ratlam .

II. Education, Awareness and Training

- 25 Schools being targeted as Green Schools. Two workshop with teachers in collaboration with Zoo Outreach, Coimbatore and Salim Ali Centre for Ornithology, Coimbatore. Activity Manual for Teachers developed by Centre for Environment Education (CEE).
- Mowgli Bal Utsav was organized on 25-27 October 2005 at Panna.



- 'Sayanan kay Thati', a compilation of sayings related to nature and bioresources in Bagheli has been published.

- 'Ekant Utsav', a meeting forum of Ekant Park Users in Bhopal was organized on May 22, 2005; International Biodiversity Day. A Support Group has been set up for management support. Interpretation material has been developed.



- Three day workshop on "Biodiversity conservation and livelihood security: Role of Board and partners", was organized at IIFM Bhopal (December 22-24, 2005). The Board Members and National Experts in different biodiversity relate,9 field participated in this workshop.

III. In-situ/Ex-situ conservation

- Sites have been finalized and proposals being developed (in final stage) for Biodiversity Parks.
- Conservation Assessment and Management Prioritization (CAMP) workshop was organised for identify species/ habitats for insitu/ exsitu conservation of medicinal plants.
- Expert consultation on Role of Pardhi Community in Biodiversity Conservation organized. Project being designed in collaboration with Forest Department.

IV. Sustainable use and equitable benefit sharing

- Kathotia village near Bhopal being developed as Community based Eco-tourism site.
- Feasibility study being undertaken for establishing supply chain for Achar harvested in Sothawadi (Seoni)
- Market research and value chain analysis for organic agricultural products being undertaken in Kusumi Block of Sidhi.

V. Governance

- Administrative and Financial Guidelines developed for functioning of Board. Recruitment process underway.
- Eco-regional Support Groups have been constituted in four eco- regions.
- District Support group in Hoshangabad.
- Leveraging funds under co-financing arrangements (CES+ UNICEF+MFP Fed)

VI. Policy and legal issues

- Workshop organized jointly with State Planning Board for incorporating Biodiversity concerns in District Plans. BD concerns being incorporated in District Plans of Six districts namely Chhatarpur, Sidhi, Chhindwara, Jhabua, Sheopur and Khandawa.
- Draft Agricultural policy of the state assessed for impact on biodiversity. Comments have been sent on the same.

6. HIMACHAL PRADESH BIODIVERSITY BOARD

I. State Biodiversity Board Meeting held

State Council for Science, Technology and Environment, HP Shimla organized the first meeting of HP State Biodiversity Board under the Chairmanship of Shri S.S. Parmar, Chief Secretary to the Govt. of Himachal Pradesh and Chairman, State Biodiversity Board, on November 10, 2005. Shri S. Behuria, Principal Secretary (Ayurveda), Dr. Shrikant Baldi, Secretary (S&T), Mrs. Bharathi Sihag, Secretary (Agriculture), Shri K.K Gupta, PCCF (Wildlife, Forest Farming and Conservation), Dr. Jagmohan Chauhan, Vice-Chancellor, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauru, Dr. B.D. Sharma, Ex-Incharge, National Bureau of Plant Genetic Resources Regional Station, Shimla, Dr. P.S. Ahuja, Director, Institute of Himalayan Bio-resources, Palampur and Shri Prabodh Sexena, Member Secretary (E. C), HP State Biodiversity Board attended the meeting. The purpose of the meeting was to apprise the members about the enactment of the Biological Diversity Act, 2002 and Biological Diversity Rules, 2004. Constitution of Biodiversity management committees, formulation of policy guidelines for conservation of biodiversity, providing funds for the function of the Board were the other issues discussed in the meeting. The Board decided the following:

- Various provisions of the Biological Diversity Act, 2002 and Biological Diversity Rules, 2004 will be implemented in the State.
- A sub-committee will be constituted for framing rules for the day to day functioning of the Board as envisaged in the Biological Diversity Act, 2002
- Biodiversity Management Committees are to be constituted at local Body/ Panchayat level by the Board in consultation with the Department of Panchayati Raj.
- Biodiversity Management Committees will prepare Biodiversity Registers and will create a data bank on local biological resources.
- A State level data bank on diverse biological resources will be created by the Board. All departments, Universities and R&D Institutions will make the data available with them to the Board.
- State Council for Science, Technology and Environment, HP will act as the Secretariat of the State Biodiversity Board and Member Secretary of the Council will operate its accounts.
- State Council for Science, Technology and Environment, HP on behalf of Board will organize awareness campaigns to educate all stakeholders on the promulgation of Biological Diversity Act, 2002 and Biological Diversity Rules, 2004.
- State Govt. will be requested to provide grant-in-aid to the State Biodiversity Board for the implementation of the Biological Diversity Act, 2002 and Rules, 2004.

Action on the recommendations of the Ist meeting of the Board initiated. Guidelines prepared for conservation of biodiversity in the State circulated amongst the stakeholder Departments / Institutions for getting the feedback. Proposal for creation of awareness among the stakeholders regarding implementation of Biological Diversity Act, 2002 in the state

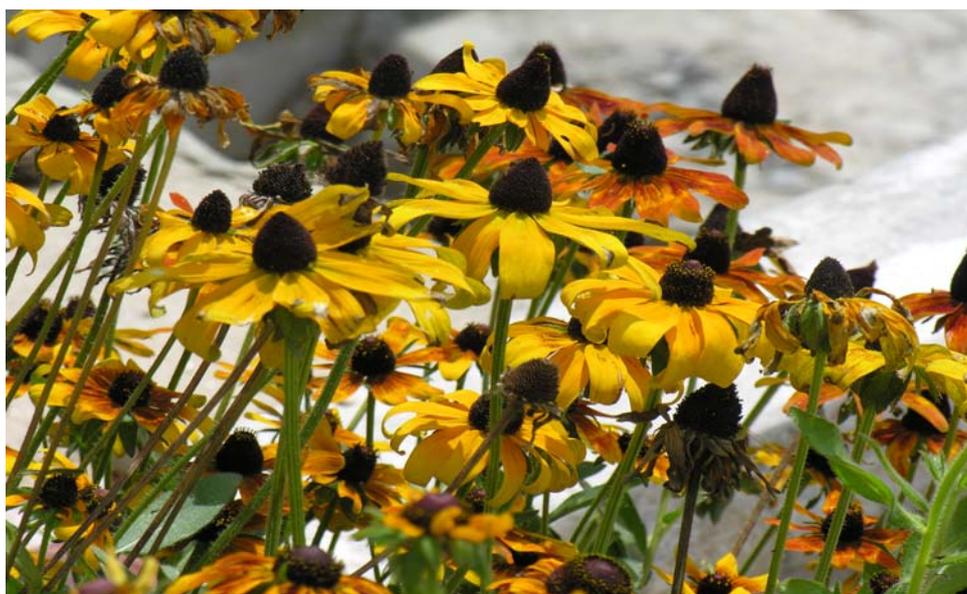
prepared and submitted to NBA for getting funds. Bibliography on the Biodiversity of North-Western Himalayas in general and Himachal Pradesh in particular distributed among the R&D institutions. Also a booklet "Biodiversity, its importance, pressures and conservation measures" prepared in Hindi version distributed amongst the NGOs and selected schools having eco-clubs in the state.

II. Popularising conversion of Pine needles biomass into briquettes for use as fuel

Himachal Pradesh is experiencing incidents of forest fires in the pine forests which cause irreparable loss to the biodiversity in the pine forests in the state. The Pine needles from the pine trees drop during summer season and are rich in resin which helps in burning of the biomass promptly, thus causing severe damage to the local biodiversity. Keeping in view the incidents of forest fires in the pine forests, the State Biodiversity Board initiated a programme in order to have a regular check and control arising out of fire in the pine forests through organization of demonstration training for the regular utilization of the waste biomass in the form of pine needles by conversion of pine needles biomass into briquettes at Naina Tikker area of Pachhad Development Block of Sirmaur District in the state. Approximate 200 farmers/farmwomen, representatives of I.R.D.P families, Mahila Mandals, self help groups and Panchayat members of Naina Tikker and adjoining area of Naina Tikker were given exposure through organization of demonstration training camp for conversion of pine needles into briquettes on 3rd June, 2005 at Naina Tikker Panchayat in the state.

III. Brochure on package of practice regarding conversion of Pine needles biomass into briquettes

The State Council prepared a Brochure regarding package of practice for conversion of Pine needles biomass into briquettes in Hindi version for popularizing the use of briquettes as fuel in the households and for space heating in rural areas of the State.



VISITORS TO NATIONAL BIODIVERSITY AUTHORITY

The Hon'ble Union Minister Thiru A. Raja for Ministry of Environment and Forests visited National Biodiversity Authority to know more about the activities of NBA and its future proposals.



Prof. S.Kannaiyan, NBA receiving the Hon'ble Minister Thiru A.Raja at NBA office.



Hon'ble Minister Thiru. A. Raja lighting the Kuthuvilakku



Hon'ble Minister Thiru A. Raja taking a closer look of the exhibition arranged by NBA at NBA office in Chennai.



Prof. S.Kannaiyan, Chairman of NBA offering shawl to the Hon'ble Minister Thiru A.Raja



Hon'ble Minister **Thiru A. Raja** releasing Biodiversity Act and Rules Book at NBA office in Chennai.



Prof. S.Kannaiyan, Chairman and **Dr.K.Venkataraman**, Member Secretary of NBA explaining activities of NBA to Hon'ble Minister **Thiru A.Raja**



Hon'ble Minister **Thiru A. Raja** in discussion with **Mr.D.D.Verma**, Joint Secretary, MoEF.

ANNEXURE 1

1. MEMBERS OF THE AUTHORITY

A. Official Members

The Joint Secretary,
Ministry of Tribal Affairs,
Shastri Bhavan,
Dr.Rajendra Prasad Road,
New Delhi-110001.

The Additional Director General (Wildlife),
Ministry of Environment & Forests,
Paryavaran Bhavan,
CGO Complex, Lodhi Road,
New Delhi-110003.

Joint Secretary (CS),
Ministry of Environment and Forests,
Paryavaran Bhavan,
CGO Complex, Lodhi Road,
New Delhi-110003.

The Joint Secretary,
Ministry of Agriculture,
Department of Agricultural Research and Education,
Krishi Bhavan, Dr. Rajendra Prasad Road,
New Delhi – 110001.

The Joint Secretary,
Department of Biotechnology,
CGO Complex,
Block No.2, Lodhi Road,
New Delhi – 110003.

The Joint Secretary,
Department of Ocean Technology,
Mahasagar Bhavan,
Block No.12, CGO Complex,
Lodhi Road, New Delhi – 110003.

The Joint Secretary,
Indian Council of Agriculture,
212, Krishi Bhavan,
Dr. Rajendra Prasad Road,
New Delhi - 110001.

The Joint Secretary,
Dept of Ayush,
Room No.201, Red Cross Building,
Parliament Street,
New Delhi -110001.

The Joint Secretary,
Department of Science and Technology,
Technology Bhavan, New Mehrauli Road,
New Delhi - 110 001.

The Joint Secretary,
Department of Science and Technology,
Ministry of Science and Technology,
Technology Bhavan, New Mehrauli Road,
New Delhi – 110001.

B. Non-Official Members

Prof. Raghvender Gadekar,
Center for Biological Science,
Indian Institute of Science,
Bangalore 560 012.

Prof. Anil Gupta,
Indian Institute of Management,
Vastrapur,
Ahmedabad - 380 001.

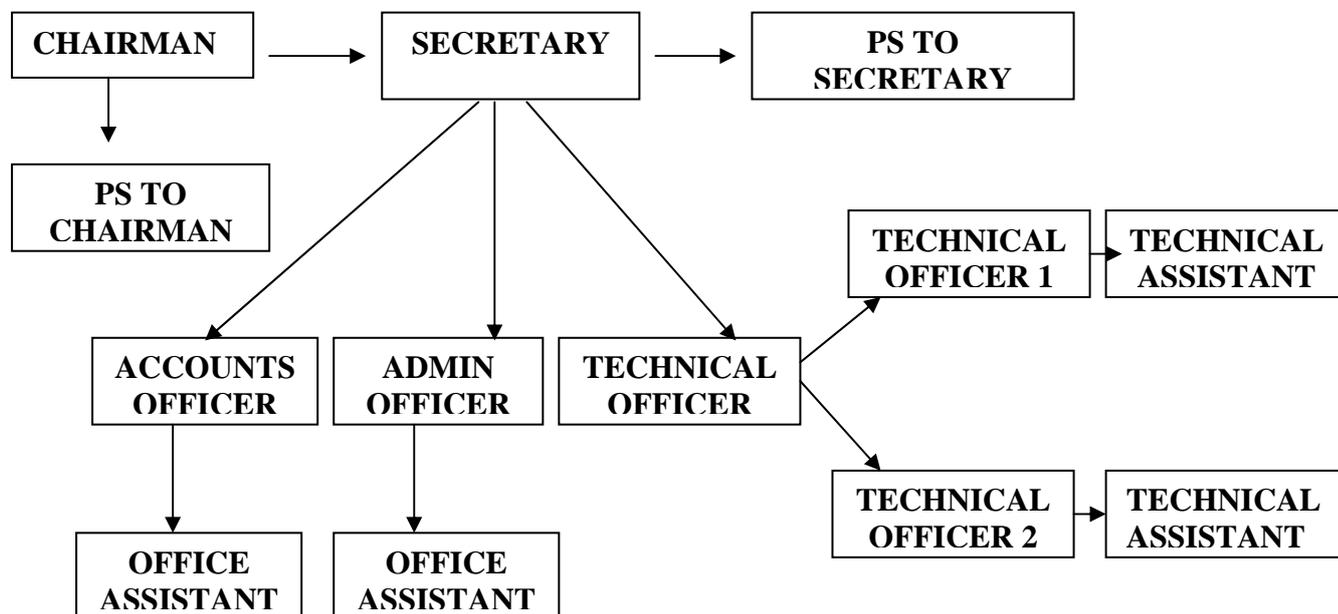
Dr. P. Pushpangadan,
Director General,
Amity Institute of Herbal & Biotech Products,
Thycaud PO, Pujappura,
Thiruvananthapuram 695 014.

Prof. L. Kannan,
Director Research,
Centre for Advanced Study in Marine Biology,
Parangipettai 608 502.
Tamil Nadu.

Dr A. K. Ghosh,
Director,
Centre for Environment and Development,
329, Jodhpur Park,
Kolkata 700 068.

ANNEXURE: 2

ORGANIZATIONAL CHART



STAFF STRENGTH INCLUDING RECRUITMENT

Staff strength:

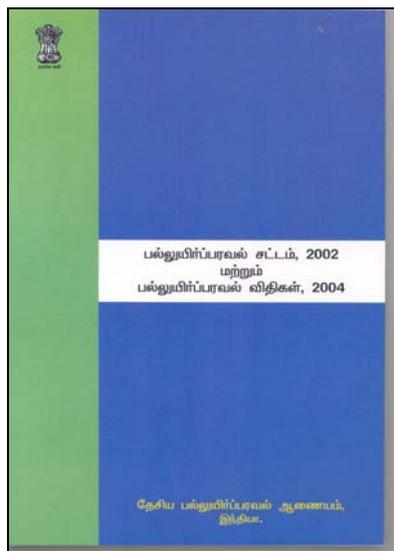
S.No	Name of the Post	No. of Post
1.	Chairman	1
2.	Secretary	1
3.	PS to Chairman	1
4.	Admn. Officer	1
5.	PS to Secy	1
6.	Technical Officer	2
7.	Advisor Law	1
8.	Accounts Officer	1
9.	Steno Gr.C	1
10.	Steno Gr.D	1
11.	Office Asstt	2
12.	Technical Asstt	2
13.	Peon/Draftery	4
	Total	19

Recruitment:

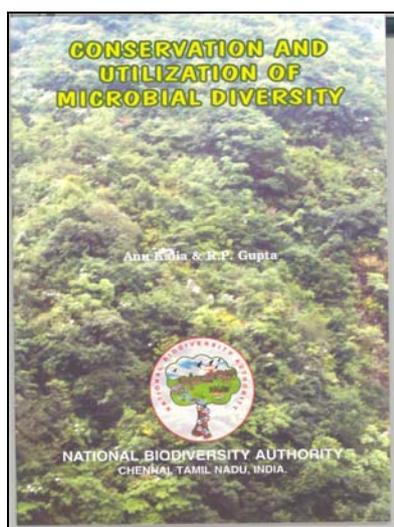
The Chairman, NBA was appointed on 20th May 2005.

❖ PUBLICATIONS

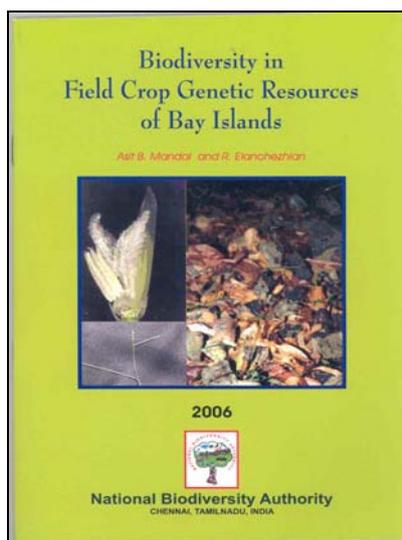
Biological Diversity Act 2002 and Biological Diversity Rules 2004: Book in English, Hindi and Tamil had been prepared and distributed to all relevant agencies by National Biodiversity Authority. Action has been taken to publish the Act and Rule book in Malayalam, Marathi and Bengali are in progress. Four bulletins had been published by National Biodiversity Authority for this year and also published abstract book of National Conference on Agrobiodiversity, Biodiversity Awareness Workshop, National Conference on Forest Biodiversity Resources: Exploitation, Conservation and Management.



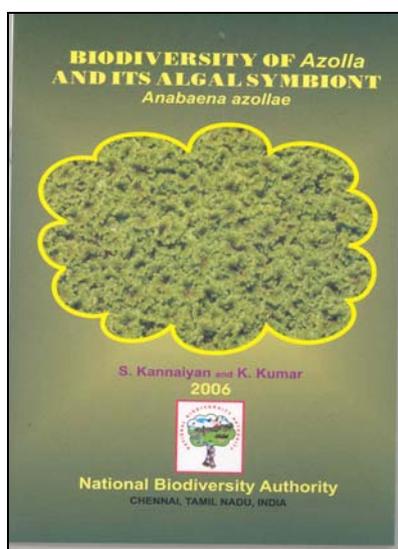
Biological Diversity Act, 2002 and Biological Diversity Rules, 2004 (in Tamil) published by National Biodiversity Authority, Chennai



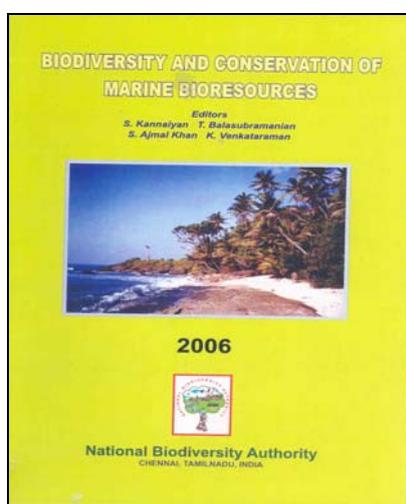
Conservation and Utilization of Microbial Diversity (Bulletin) published by National Biodiversity Authority, Chennai



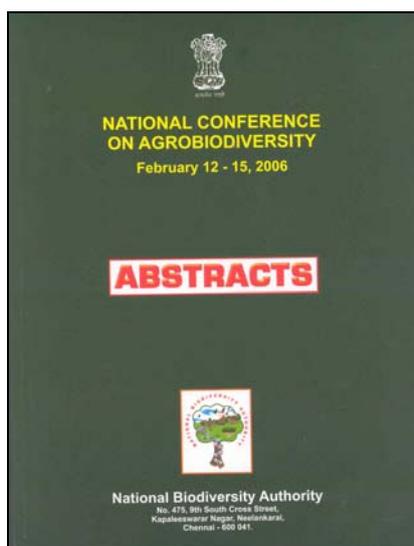
Biodiversity in Field Crop Genetic Resources of Bay Islands (Bulletin) published by National Biodiversity Authority, Chennai



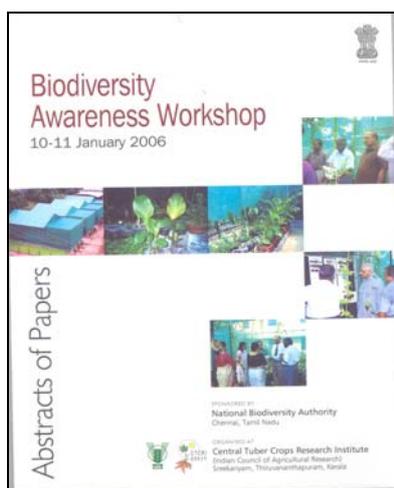
Biodiversity of *Azolla* and its Algal Symbiont *Anabaena azollae* (Bulletin) published by National Biodiversity Authority, Chennai



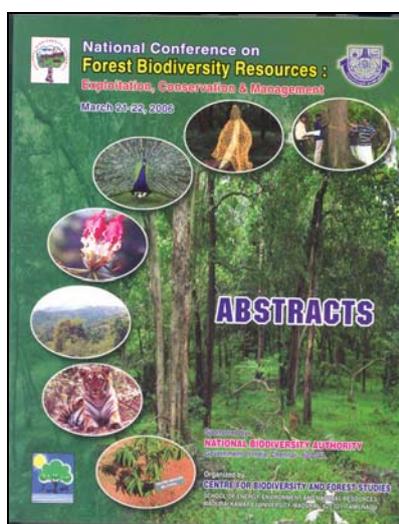
Biodiversity and conservation of Marine Bioresources (Bulletin) published by National Biodiversity Authority, Chennai



Abstracts Book of National Conference on Agrobiodiversity published by National Biodiversity Authority, Chennai



Abstracts of papers in Biodiversity Awareness Workshop published by National Biodiversity Authority, Chennai and Central Tuber Crops Research Institute, Kerala



Abstract Book of National Conference on Forest Biodiversity Resources: Exploitation, Conservation & Management published by National Biodiversity Authority, Chennai and Centre for Biodiversity and Forest Studies

❖ **TRAINING COURSES / SEMINARS / WORKSHOP ORGANISED BY NATIONAL BIODIVERSITY AUTHORITY**

- (1) An interactive workshop on “CONSERVATION AND SUSTAINABLE UTILIZATION OF MARINE BIORESOURCES” on 14th June 2005 conducted jointly with Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai. During the workshop 20 theme papers on different issues of Marine biodiversity and Marine bioresources, conservation were presented and discussed. The workshop was inaugurated by Prof. S. Kannaiyan, Chairman, National Biodiversity Authority.
- (2) A one day interactive workshop on the “IMPLEMENTATION OF PEOPLES BIODIVERSITY REGISTERS (PBR) AT THE VILLAGE LEVEL” was organized by National Biodiversity Authority on 30th June, 2005. Twenty scientists from various parts of India participated and discussed in detail. The recommendation was drafted for effective implementation. The recommendations are placed before the Authority for discussion.
- (3) “WORKSHOP ON BIODIVERSITY ACT, 2002 AND FORMATION OF PONDICHERRY BIODIVERSITY COUNCIL” Organized by Department of Forests and Wildlife and National Biodiversity Authority. Date: 05-08-2005, Venue: Hotel Annamalai, Pondicherry.
- (4) “FACILITATING FORMATION OF STATE BIODIVERSITY BOARDS & BIODIVERSITY MANAGEMENT COMMITTEES IN INDIAN HIMALAYAN REGION” organized by National Biodiversity Authority, Chennai and G.B. Pant Institute of Himalayan Environment and Development, Kosi-Katarmal, Almora. Dates: September 11-12, 2005 Venue: GBPIHED, Kosi-Katarmal, Almora, 263643 Uttaranchal.
- (5) “NATIONAL WORKSHOP ON INVOLVEMENT OF TAXONOMISTS IN BIODIVERSITY AND BIO-RESOURCES CONSERVATION AND FORMATION OF PEOPLES BIODIVERSITY REGISTERS” Organized by National Biodiversity Authority, Chennai. Date: 19.09.2005, Venue: NBA Conference Hall, Chennai.
- (6) “BRAINSTORMING SESSION FOR OPTIMISING THE EFFECTIVENESS OF NATIONAL BIODIVERSITY AUTHORITY, STATE BIODIVERSITY BOARDS AND BIODIVERSITY MANAGEMENT COMMITTEES” Held on 2nd August 2005 Under the Chairmanship of Secretary, Ministry of Environment and Forests, New Delhi. Attended by the Chairman, NBA and the Secretary, NBA.
- (7) “EXHIBITION ON MARINE FAUNAL DIVERSITY- AMAZING WORLD OF ANIMALS – AN EXPOSITION.” Organized by National Biodiversity Authority and MBS, Zoological Survey of India, Chennai. Date: 26 – 29th, October, 2005, Venue: Marine Biological Station, ZSI, Chennai.

- (8) “A WORKSHOP ON AWARENESS CREATION ON BIODIVERSITY AND CONSERVATION OF MUSHROOMS” Organized by National Biodiversity Authority, Chennai and Indhira Gandhi Agricultural University, Raipur. Date: 1 – 2nd December, 2005. Venue: College of Agriculture, IGAU, Raipur.
- (9) “BIODIVERSITY, POLLUTION, EIA AND ENVIRONMENTAL MANAGEMENT AND DISASTER MANAGEMENT WITH REFERENCE TO TSUNAMI – QUIZ PROGRAMME FOR COLLEGE STUDENTS”. Organized by National Biodiversity Authority, Chennai and Department of Advance Zoology & Biotechnology, Loyola College, Chennai. Date: 12 - 13 December, 2005. Venue: Lawrence Sundaram Auditorium, Loyola College, Chennai.
- (10) “MARINE BIODIVERSITY OF GULF OF MANNAR AND PALK BAY IN TAMIL NADU” Organized by National Biodiversity Authority and Aquaculture Foundation of India, Chennai. Date: 17.12.05 and 18.12.05. Venue: M.G.Mahal, Madurai Road, Ramanathapuram.
- (11) “NATIONAL CONFERENCE ON AGRO BIODIVERSITY” organized by National Biodiversity Authority on 12th Feb – 15th Feb, 2006 at NIOT Campus, Pallikaranai, Chennai.
- (12) “ONE DAY WORKSHOP ON BIRD FLU” organized by National Biodiversity Authority on 6.3.2006 at conference Hall, National Biodiversity Authority, Chennai – 600 041.
- (13) “NATIONAL CONFERENCE ON FOREST BIODIVERSITY RESOURCES: EXPLOITATION, CONSERVATION AND MANAGEMENT” Organized jointly by National Biodiversity Authority and Centre for Biodiversity and Forest Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai on 21-23 March 2006.



