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ENVIRONMENTAL INFORMATION SYSTEM (ENVIS) : INDIA

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Ministry of Environment and Forests
New Delhi, India

Introduction

1. Today, information on the environment has acquired importance as well as urgency. It is an area vital to human existence. Environmentally sound decisions, which are essential for achieving sustainable development are not possible in an information vacuum. A system that can provide timely information is of great help to research and development as well in the formulation of management policies. Environmental Information is a resource, which together with physical, economical, technical and human resources is essential for national development. Sustainable development, which has evolved as the goal for human welfare in recent times, is rooted in the availability of right information to the right person at the right place and at the right time. The need for information arises at all levels, from that of senior decision-makers at the national and international levels to the grassroots and individual levels.

Foundation of the Environmental Information System (ENVIS)

2. Realising the importance of environmental information, the Government of India established the Environmental Information System (ENVIS) within the Ministry of Environment and Forests in December 1982 to provide information to decision makers, policy planners, scientists, etc throughout the country. The collection, collation, storage, retrieval and dissemination of environmental information to users are vital components of the whole system.

3. ENVIS is a decentralised, consortium-based information network consisting of a focal point at the Ministry of Environment and Forests responsible for coordinating the activities of twenty five subject-specific information centres (known as ENVIS centres) located all over the country at well-known and established institutions. A list of current ENVIS centres along with their respective subject areas is given in Annex 1.

*Author is a Senior Adviser and Director (ENVIS)

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Objectives

4. Several long-term and short-term objectives have been laid down for ENVIS. These are as follows:

Long-term objectives

- to build up a repository and dissemination centre in environmental science and engineering;
- to take advantage of modern technologies for information acquisition, processing, storage, retrieval and dissemination of environmental information; and
- to support and promote research, development and innovation in environmental information technology.

Short-term objectives

- to provide a national environmental information service relevant to present needs and capable of development to meet the future needs of the users, organisers, processors and disseminators of information;
- to build up storage, retrieval and dissemination capabilities with the ultimate objective of timely dissemination of information to the users;
- to promote national and international exchange of environmental information;
- to promote, support and assist education and personal training programs designed to enhance environmental information processing and usage capabilities; and
- to promote the exchange of information amongst developing countries.

Responsibilities

5. In order to achieve the above objectives, the ENVIS focal point in the Ministry as well as the ENVIS centres have been assigned various responsibilities which are broadly defined as follows :

Focal Point

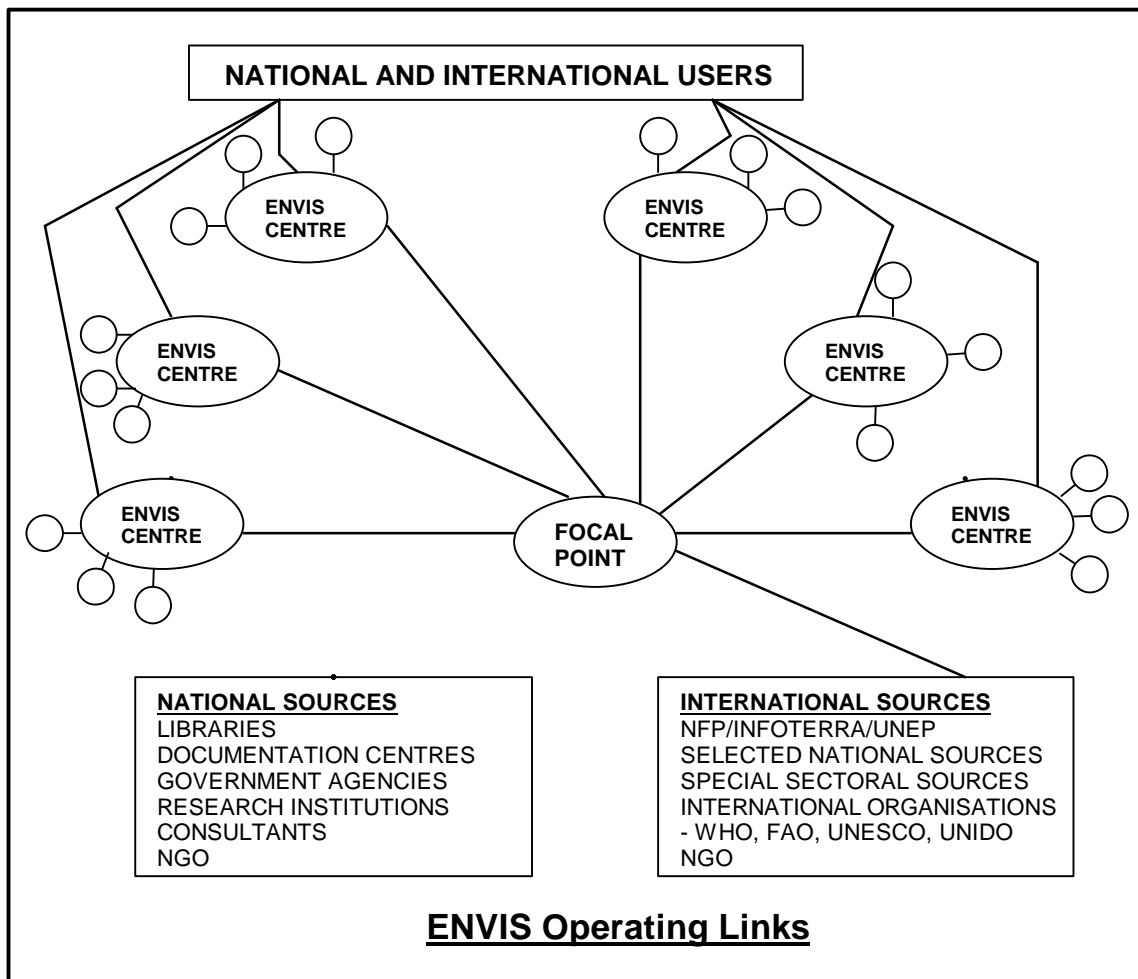
- Overall co-ordination of the ENVIS network;
- Identification of ENVIS centres in specified areas, their location in selected institutes and their linkage with the focal point;
- Formulating guidelines and uniform cooperative framework for the ENVIS centres;
- Collection, storage, retrieval and dissemination of information on areas in which ENVIS centres have not been established and some other general areas of environment like environmental policy and management, environmental legislation, environmental impact assessment etc;
- Responding to users queries directly or through the ENVIS centres;
- Establishment of specialised databases in important areas of the environment;
- Identification of data gaps and knowledge gaps in specified subject areas and initiating action to fill these gaps;
- Liaison with relevant national and international information systems;
- Information analysis and development of environmental statistics;
- Preparation of quarterly abstracting journal *Paryavaran Abstracts*;
- Organising training workshops and seminars;
- Monitoring and reviewing of ENVIS operations;
- Assisting the Scientific Advisory Committee of ENVIS with inputs and rendering other secretarial help;
- Publication of the Ministry's Annual Report;
- Publication of monthly journal entitled *Environews* - a newsletter containing policy issues on environment and related areas;
- Development of the Ministry's and the ENVIS website.

ENVIS Centres

- Building up a good collection of books, reports and journals in particular subject areas of environment;
- Establishment of linkages with all information sources in the specific subject of environment;
- Responding to users' queries;
- Establishment of a data bank on some selected parameters relating to the subject area;
- Co-ordination with the Focal Point for supplying relevant, adequate and timely, information to the users;
- Helping the Focal Point in gradually building up an inventory of information material available at the centres;
- Identification of gaps in the specified subject areas and action to fill these gaps;
- Bringing out newsletter / publications in their subject area for wide dissemination; and
- Development of websites and homepages concerning their assigned specific subject area.

Network Development of ENVIS

6. Since environment is a broad-ranging multidisciplinary subject, a comprehensive information system on environment would necessarily involve the effective participation of relevant institutions in the countries that are actively engaged in work relating to different subject areas of the environment. ENVIS has, therefore, to develop itself with a network of such participating institutions organisations for the programme to be meaningful. ENVIS centres in the different subject areas of the environment constitute the nodes in this network development. More ENVIS centres have to be established in the network until a reasonable coverage of relevant subject areas of environment is achieved. So far, ENVIS has set up 25 centres (Annex 1) on various thematic areas of the environment. The criteria laid down for selection of such centres are given below :



Criteria for selection of ENVIS centres

7. The following criteria are applied to the selection of ENVIS centres:

- centres should cover subject areas of concern and priority;
- centres should be located in leading national institutions in the specific subject areas; and
- the institute hosting an ENVIS Centre should have the necessary expertise and capability to run a subject-oriented information centre and should have interest and willingness to serve the user community of ENVIS with substantive information when required.

ENVIS activities

8. Within a period of a decade and a half, ENVIS has built up a reasonably good information base in the form of publications, reports, reprints, bibliographies, abstracts, computerised databases, etc. as well as statistics relating to environment. The information base or repository is being continuously strengthened. This involves regular collection and management of scientific and technical information on environment and related areas. The establishment of several ENVIS centres, located in different institutions in the country on selected areas of environment, as part of ENVIS network, has considerably assisted in building up and strengthening this information base.

Major activities of the Focal Point

9. ENVIS is engaged in several national and international activities aimed at improving access to information within India and contributing the international exchange of information and experience on environmental matters.

ENVIS as UNEP's INFOTERRA National Focal Point

10. The ENVIS Focal Point within the Ministry has been designated as UNEP's INFOTERRA National Focal Point (NFP) for India and, in that capacity, is mandated to catalyse and support the exchange of information within and between the nations. Almost all member countries of United Nations are partners of the INFOTERRA network. The following are the responsibilities of ENVIS as a National Focal Point:

- Compiling and maintaining a national inventory of sources of environmental information;
- Evaluating the information supply capability of each source;
- Providing information services to national users;
- Assisting and monitoring the flow of environmental information between the community of sources and users;
- Promoting INFOTERRA and its services;
- Establishing and maintaining communications at all levels in the INFOTERRA network;
- Participating in the development, evaluation and improvement of INFOTERRA.

ENVIS as UNEP's INFOTERRA Regional Service Centre (RSC)

11. In order to strengthen the information activities of the National Focal Points, ENVIS was designated in 1985 as the Regional Service Centre (RSC) of UNEP/INFOTERRA for the South-Asia sub-region. The basic responsibilities delegated to ENVIS as RSC were as follows:

- Provision of substantive environmental information to users of the South-Asia sub-region countries namely Bangladesh, Bhutan, Nepal, Pakistan and Sri Lanka and Maldives;
- Distribution of information leaflets, brochures, etc. about INFOTERRA activities of National Focal Point in the South Asia Sub-region countries
- Appraisal of NFPs of the South-Asia sub-region countries about the service being provided to national and international users by the RSC;

- Promotion of the RSC activities through regular INFOTERRA advertisements in the quarterly journal *Paryavaran Abstracts* published by ENVIS and having a circulation of over 2,500 national and international users. This journal is also sent free of cost to all the National Focal Points and users in the South-Asia sub-regional countries;
- Maintenance of close liaison with all the NFPs in the sub-region; and
- Database search service using the database resources of the entire ENVIS Network.

ENVIS as an Implementing Agency for UNDP's Sustainable Development Networking Programme (SDNP)

12. The ENVIS Focal Point in the Ministry has also been identified as an implementing agency of UNDP's Sustainable Development Networking Programme (SDNP). The SDNP has been initiated with financial support from United Nations Development Programme (UNDP) and International Development Research Centre (IDRC), Canada for a period of three years.

13. The goal of the Programme is to promote the process of sustainable development through accessibility to and exchange of information among all concerned parties - academic and research institutions, NGOs; government bodies and business establishments. To achieve this goal, the following objectives have been set :

- establish and operate a distributed clearinghouse to answer and channel queries related to sustainable development.
- organise an SDNP Association which will be open to individuals and institutions concerned with exchange of information on sustainable development.
- contribute to the SDNP website that provides access to information on subject areas related to sustainable development (it can be browsed at <http://sdnp.delhi.nic.in>);
- maintain a directory of information providers;
- develop and maintain databases on issues relating to sustainable development; and
- host e-mail discussion groups on specific subject areas.

14. In addition to the above, SDNP also deals with preparing an inventory of information providers; dissemination of information (both manual and automated); collection, storage and retrieval of information in useable format; response to queries, etc.

15. Both ENVIS and SDNP share a common goal of dissemination of information on a number of subject areas. ENVIS was originally envisaged as an information system in Environmental Sciences and Engineering, while SDNP encompasses a broad range of subject areas on sustainable human development.

16. The SDNP has identified 10 nodes so far on various subject areas to help the Programme disseminate information to users through print and electronic media. The SDNP will assist these selected nodes develop their website and host them on SDNP web server. Further assistance will be given on the development of databases that are web-accessible and training will be provided to selected personnel for developing and updating web pages on their respective websites. Information technology (IT) has a significant role to play in this networking programme. The SDNP web site has become a starting point for any user searching for information on sustainable development.

17. It is important to note that both ENVIS and SDNP have to work together to avoid any duplication of efforts and set up a common goal which can be met by joint efforts of the ENVIS focal point in the Ministry and the SDNP Secretariat.

Abstracting service

18. The Focal Point publishes the quarterly abstracting journal *Paryavaran Abstracts* containing information about current Indian research in the area of the environment. More than 250 environment related journals are referenced in the compilation of these abstracts. The abstracts are arranged under major subject categories:

Environmental Management
Air Pollution
Water Pollution
Noise Pollution
Ecology
Nature and Natural Resources Conservation
Health and Toxicology
Wastes
Forestry and Environment
Wildlife
Energy
Plants
Pollution

For precise retrieval of information, a subject key words index is also given at the end of each issue. A database of *Paryavaran Abstracts* has been developed for electronic retrieval and dissemination of information.

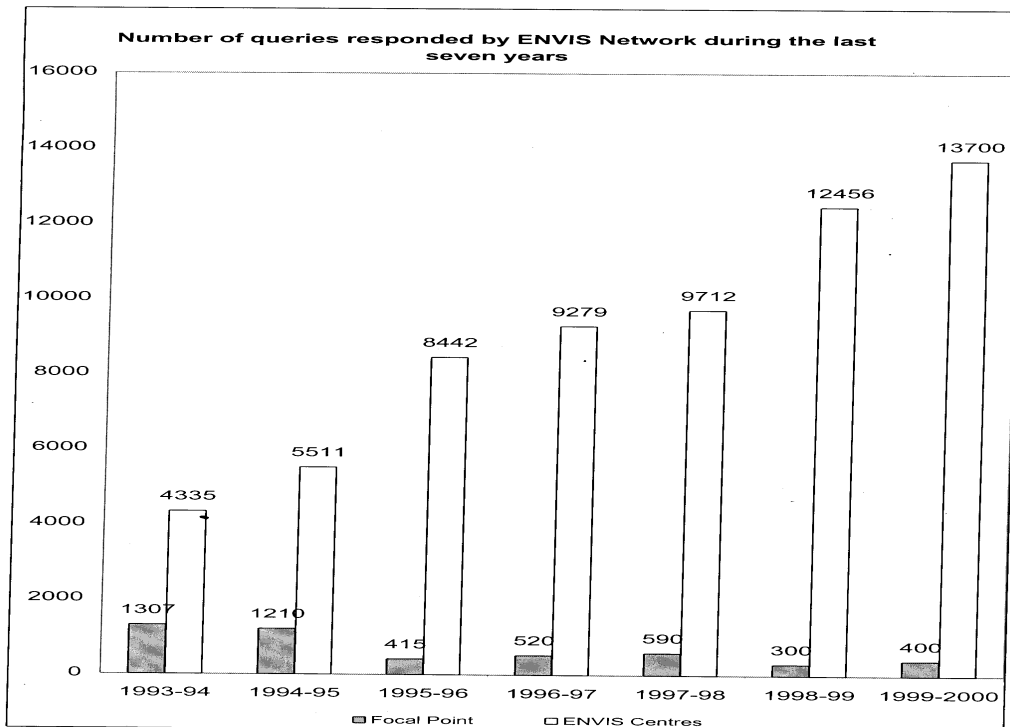
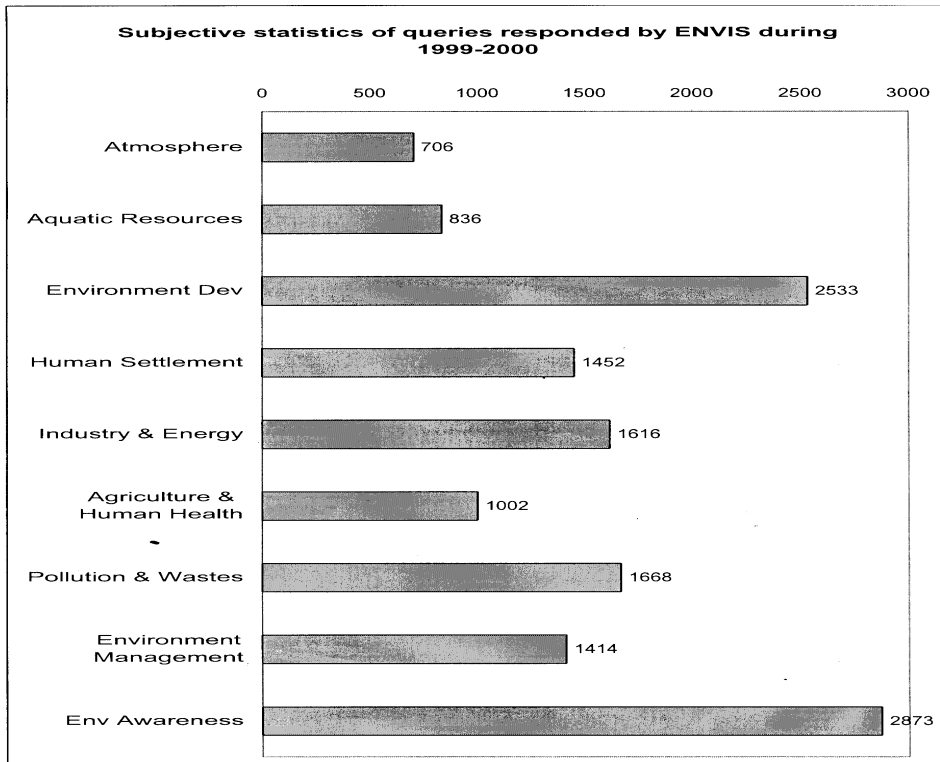
Query –Answer Service

19. The ENVIS network as a whole responds to various requests for information on diverse areas related to environment from national and international user groups. All such queries are responded to by supplying substantive information in the form of bibliographies, photocopies of reprints, reports, etc.

The following graphs show

- (a) subjective statistics of queries answered by ENVIS over the previous year (mid-1999 to mid-2000)
- (b) the number of queries answered by the ENVIS Network over the past seven years.

20. The graphs illustrate the high demand for ENVIS services which continues to increase linearly across the ENVIS network. The thematic chart gives a clear indication of the main environmental issues that are of interest to the users of ENVIS.

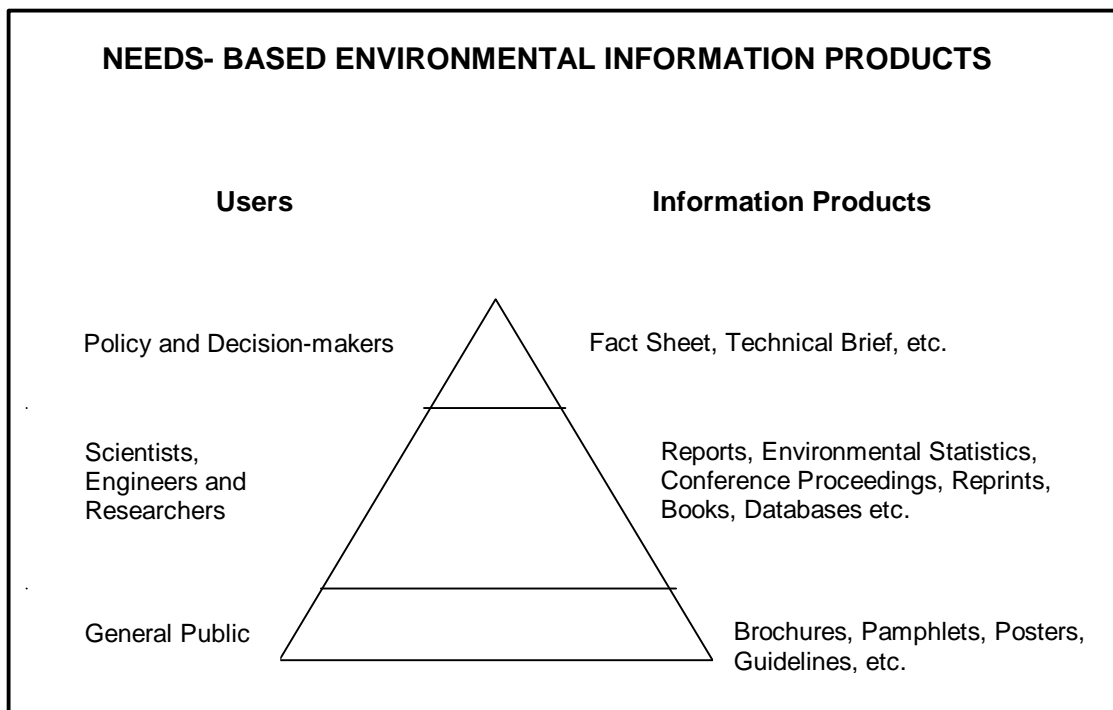


Referral Services

21. In some cases where the ENVIS network is unable to provide substantive information the ENVIS Focal Point provides referral services to its users.

Development of databases

22. ENVIS is also engaged in developing various other databases. One popular output is a database containing profiles of various non-governmental organisations (NGOs) working in the area of environment in the country. The information of this database is continuously updated. ENVIS has also compiled a directory of Indian sources on environmental information and over 250 sources have been registered.



Documentation

23. The Focal Point is engaged in collection, collation, storage, retrieval and dissemination of information in various environmental areas. The information is collected in the form of books, reports, journals, monographs, bibliographies, etc. and are classified by subject for retrieval purposes. The information collection task is organised from a well-equipped library in the Ministry of Environment and Forests. The library has a collection of over 20,000 books, technical reports, standards and specifications, conference proceedings, etc. on environment and sustainable development. In addition, there are over 3,000 scientific and technical reports. The library subscribes to over 150 national and international journals. The resources of Library are in the process of being computerised.

Publications

24. ENVIS is also responsible for the following regular and occasional publications:

- Ministry's Annual Report;
- A monthly newsletter entitled *Environews* – giving policies, guidelines, projects sanctioned etc;
- A guide on funding mechanisms of the Ministry of Environment and Forests;
- Handbook on environmental procedures and guidelines;
- Environmental Information System – a booklet; and
- Several other important documents of the Ministry.

Website Development

25. Information about the Ministry of Environment and Forests is now available on the Internet at the Ministry's website <http://envfor.nic.in>. The homepage contains the basic details about the organisational structure of the Ministry, including the names, responsibilities, functions and contact details of the various divisions, auxiliary bodies, associated offices and autonomous agencies of the Ministry located in different parts of the country. The Environmental and Forest Clearance accorded by the Ministry are also available on the website. Other publications such as the monthly newsletter *Environews*, the Ministry's Annual Report, environmental legislation and various technical publications are also available.

26. Detailed information about the Environmental Information System (ENVIS) of the Ministry, including the list of ENVIS centres with their areas of specialisation and contact details can be browsed directly at <http://envfor.nic.in/envis>.

Major Activities of the ENVIS centres

27. The twenty five ENVIS centres are also engaged in similar activities to the focal point such as collection, collation, storage, retrieval and dissemination of information in their respective areas of specialisation. Their publications include state-of-art reports, periodicals, bibliographies, etc. for dissemination among targeted user groups. Apart from catering to the information needs of the focal point, the centres are supplying referral and substantive information to both the national and international users of the network.

28. Selective dissemination of information service is provided by some of the centres. Current awareness and abstracting services are also been undertaken. Several centres have undertaken work relating to collection of data for the systematic compilation of environmental statistics in their respective thematic areas. The development of thematic and bibliographic databases is an on-going activity. The majority of the ENVIS Centres have now developed their own websites and the use of e-mail has obviously improved communications with the ENVIS Focal Point in the Ministry.

Future plans

29. All ENVIS Centres set up under the ENVIS consortium structure could be browsed at the URL <http://envfor/envis> for accessing existing information in the relevant subject area. In order to provide on-line information, almost all the ENVIS Centres are being networked with the Focal Point and vice-versa. Wide Area Network (WAN) has been installed at the ENVIS Focal Point. It is also proposed to develop CD-ROMs for easy exchange of information to network partners and other national information systems. In order to stay at the cutting edge of modern information and communications technologies, it is also proposed to promote, support and assist educational and professional training programmes under the scheme to enhance environmental information and to promote exchange of information amongst developing and developed countries. All ENVIS network partners will be encouraged to develop and support their own websites.

Annex I

List of ENVIS Centres

ENVIS Centres

ENVIS Centres	Communication Linkages	Area
1. Shri D. K. Biswas Chairman Central Pollution Control Board, Parivesh Bhawan, CBD- Cum Office Complex, East Arjun Nagar, Delhi – 110092	Tel : 011- 2217213, 2217078 Grams : CLEENVIRON Telex : 031- 66440 PCON IN Fax : 011- 2217078,2451932 email: root@cpcb.ernet.in http://envfor.nic.in/cpcb	Control of Pollution (Water, Air, & Noise)
2. Dr. P.K. Seth Director Industrial Toxicological Research Centre (ITRC) Mahatma Gandhi Road Lucknow - 226001	Tel: 0522- 247586, 241856 Grams: INTOXI LUCKNOW Fax: 0522- 248227 email: intox@itrc.sirnet.ernet.in pnv@itrc.ernet.in	Toxic Chemicals
3. Dr. Ashok Khosla, President, Development Alternatives B- 32, Institutional Area, Tara Crescent, New Mehrauli Road, New Delhi- 110016	Tel: 011-6967938, 6851158 Fax : 011- 6866031 email : tara@sdalt.ernet.in http://www.ecouncil.ac.ct/dainet	Environmentally Sound and Appropriate Technologies
4. Dr. Jayprakash Narayan Director Centre for Environment Studies College of Engineering Anna University, Madras - 600025	Tel: 044 - 2351723 / Extn 3 Gram: ANNATECH MADRAS Fax: 044- 2368403 email: annalib@sinetm.ernet.in	Biodegradation of Wastes and Environmental Impact Assessment
5. Dr. R. K. Pachauri Director Tata Energy Research Institute (TERI) Darbari Seth Block Habitat Place, Lodi Road, New Delhi- 110003	Tel: 011- 4622246, 4601550 Grams: TERINST Fax: 11-4621770, 4632609 email: mailbox@teri.ernet.in http://www.teriin.org/envis	Renewable Energy and Environment
6. Prof. Raghavendra Gadagkar Chairman Centre for Ecological Sciences Bangalore- 560012	Tel: 080- 3340985, 3344411 Extn.- 2506, Fax: 080- 3341683 email: ragh@ces.iisc.ernet.in http://www.ces.iisc.ernet.in/hpg/envis	Western Ghats and Biological Diversity
7. Project Director World Wide Fund for Nature 172-B, Lodi Estate, Max Mueller Marg New Delhi - 110 003	Tel: 011-462 7586, 4616532, 4693744 Fax: 91-11-4626837 Grams: PANDAFUND, DELHI email: wwf.indev@unv.ernet.in http://www.wwf.indev.org	Non Government Organisations Media and Parliament matter related to Environment

ENVIS Centres	Communication Linkages	Area
8. Executive Director Environmental Planning and Coordination Organisation 'Kachner' Paryavaran Parisar E-5 Sector, Arera Colony Bhopal-462016	Tel: 0755-565868, 566970 Fax: 0755- 562136	Environmental management related to the State of Madhya Pradesh
9. Dr. S. K. Bhattacharya Deputy Director National Institute of Occupational Health (NIOH) Meghani Nagar, Ahmedabad - 380 016	Tel: 079-2867351, 2867352, Grams: NIOHEALTH Fax: 079-2866630 email : niohahd@ad1.vsnl.net.in	Occupational Health
10. Dr. D. C. Ojha Senior Librarian Central Arid Zone Research Institute (CAZRI), Jodhpur - 342002	Tel: (0291) 40931 Fax: (0291) 40706 email: dcojha@cazri.nic.in	Desertification
11. Prof. L. Kannan Centre Incharge Centre for Advanced Studies in Marine Biology Annamalai University Parangipettai - 608502	Tel: 04144-83533 Fax: (04144)83555 email: aucasmb@md4.vsnl.net.in http://www.geocities.com/hotsprings/resort/9990	Mangroves, Estuaries, Lagoons and Coral Reefs
12. Shri Kartikeya V.Sarabhai Director Centre for Environment Education Nehru Foundation for Development Taltej Tekra, Ahmedabad - 380054	Tel: 079-6442642, 6442651 Fax: 079-6420242, 468201 email : cee@adl.vsnl.net.in http://envfor.nic.in/cee	Environmental Education
13. Dr. J.R.F. Alfred, Director Zoological Survey of India M- Block, New Alipore Calcutta - 700053	Tel: 033-4006893, 4003383 Grams: ZOOLOGY,CALCUTTA Fax: 033-4006893 http://envfor.nic.in/zsi	Faunal Bio-diversity
14. Prof. Gurdeep Singh Prof & Head Centre of Mining Environment Indian Schools of Mines Dhanbad - 826004	Tel: 0326- 202381,202487 Fax: 0326- 206372, 203042 E- mail: cme@ismine.ernet.in http://scolomin.freesevers.com/main.html	Environmental problems of mining
15. Dr. T. Chakraborty Head, RIHW Division National Environmental Engineering Research Institute (NEERI) Nehru Marg, Nagpur- 440020	Tel: 0712- 226071 – 75 Grams: NEERI Fax: 0712- 225191 email: dimeeri@nagpur.dot.net.in	Solid Wastes including Hazardous Waste

ENVIS Centres	Communication Linkages	Area
16. Dr. S.M. Palni Director G.B.Pant Institute of Himalayan Environment & Development Kosi - Katarmal - 263643 U.P.	Tel: 05962-41014, 41011 Fax: 05962-30100 Attn. GBPHED email: gbphed@giadlol.vsnl.net.in http://envfor.nic.in/gbphed	Himalayan Ecology
17. Prof. A.K. Maitra Head, Envis Centre School of Planning and Architecture, Indraprastha Estate New Delhi- 110002	Tel: 011- 3318353 Fax: 011- 3319435 email: akm@spa.ernet.in	Human Settlement
18. Prof. V. Subramanian School of Environmental Sciences Jawaharlal Nehru University New Delhi – 110 067	Tel : 011-6106501,6107676 Extn.2316 Fax : 011-6165886 Grams : JAYENU email : subra@jnuniv.ernet.in http://envisjnu.tripod.com/	Biogeochemistry and Environmental Law
19. Dr. L.K. Banarjee Botnical Survey of India ENVIS Project Co-ordinator P-8, Brabourne Road Calcutta – 700 001	Tel : 033-2498530 Fax : 033-2429330 Grams : BOTSURVEY email : bsi@gems.vsnl.net.in http://envfor.nic.in/bsi	Floral Bio-diversity
20. Sh. M.G. Gopal Director Environmental Protection Training And Research Institute 91/4, Gachibowli Hyderabad – 500 032	Tel : 040-3001241,3001242 Fax : 040-3001242 email : ruma@eptri.in info@eptri.com http://www.eptri.com	Eastern Ghats
21. Director Bombay Natural History Society (BNHS) Hornbill House Dr. Salim Ali Chowk Shaheed Bhagat Singh Road Mumbai – 400 023	Tel : 022-2821811 Fax : 022-2837615 Grams : HORNBILL email : envis@bnhs.wiprobt.ems.vsnl.net.in	Avian Ecology including Inland Wetlands
22. Sh. Mudit Kumar Singh Asst. Director General, Dte of extension Indian Council of Forestry Research Education New Forest - P.O. Dehradun 248 006 (U.P)	Tel : 0135-755607 Fax: 0135-757775 email : mudit@icfre.up.nic.in http://envfor.nic.in/icfre	Forestry

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| 23. Sh. S.K. Mukerjee
Director
Wildlife Institute of India
P.O. Box No. 18
Chandrabani
Dehradun 248 001 | Tel : 0135-640112.-15
Fax : 0135-640117
email : envis@wii.gov.in
http://www.wii.gov.in | Wildlife & Protected
Area Management |
| 24. Dr. Desh Bandhu
President
Indian Environmental Society
U-112, Vidatha House
Vikas Marg, Shakarpur
Delhi – 110 092 | Tel : 011-223311, 2450749
Fax : 011-3317301
email : iesenro@del2.vsnl.net.in | Panchayati Raj &
Environment |
| 25. Dr. N. Baskara Rao
President
Centre for Media Studies
9/1, Institutional Area (opp. JNU)
New Delhi – 110 067 | Tel : 6851660, 6864024
Fax : 91-11-6854001
Email : nbracms@giadl01.vsnl.net.in | Communication &
Electronic Media |
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