



**ADMINISTRATIVE REPORT 2014-15  
OF DIRECTORATE OF ENVIRONMENT,  
GOVERNMENT OF MANIPUR  
POROMPAT, IMPHAL – 05**

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**I. Introduction about the Sector :**

The main role and function of the Directorate of Environment in the state is policy planning, conservation, regulation, co-ordination and promotion of environment related issues along with its meaningful application in various developmental programmes to achieve the socio economic objectives of the State. The Directorate is mandated to enforce the Environment (Protection) Act , 1986 and subsequent rules in the state.

The Directorate of Environment implements plan schemes /works projects for advancing mass awareness and protection of the fragile environment in order to maintain a consistent balance between the development programmes and restoration of natural environment of Manipur. Besides these, data collection, information dissemination, research and development on the state specific environmental issues along with extension of services to different Government Departments/Academic Institution/NGOs on Water-Air-Soil quality through its R&D Laboratory, of which is considered to be the only referral laboratory in the state, are some of the prime activities of the department.

**II. Vision/Approach of the Department :**

The Directorate of Environment is presently implementing 17 approved plan schemes with community participation which may serve as an approach for strategies and action plan to combat climate change scenario in the state – a burning issue in the global context.

The Directorate of Environment is the Regional Resource Agency (RRA) in Manipur for implementation of the National Environment Awareness Campaign (NEAC) of the MoEF The ENVIS (Environmental Information System) Centre, established in the Environment Department under the sponsorship of MoEF, is playing a vital role as a comprehensive networking partner of the country for environmental information collection, collation, storage, retrieval and dissemination to different users.

**III. Function of Directorate of Environment :**

- |                              |                  |                    |
|------------------------------|------------------|--------------------|
| I. Policy Planning           | II. Conservation | III. Regulatory    |
| IV. Co-ordination            | V. Promotion     | VI. Implementation |
| VII. Monitoring & Evaluation |                  |                    |

**IV. Total Financial Outlay (Plan) :**

- |   |                     |                            |
|---|---------------------|----------------------------|
| - | <b>B.E. 2014-15</b> | <b>: Rs. 1100.00 Lakhs</b> |
| - | <b>R.E. 2014-15</b> | <b>: Rs. 1100.00 Lakhs</b> |



## **V. Responsibility as per rules of Business :**

Directorate of Environment is responsible for all matters related to Environment and Ecology and all matters related to State Pollution Control Board and Environment Protection Council. This Department has also been successfully enforcing/implementing the various Acts & Rules laid down by the Ministry of Environment & Forests, Government of India.

- a) The Water (Prevention and Control of Pollution) Act 1974 and Rules 1975.
- b) The Air ((Prevention and Control of Pollution) Act 1981 and Rules 1982.
- c) The Environment ( Protection )Act 1986 and Rules 1988.

As a part of the central government programmes, the office is also responsible for preparation of :

- State Environment Policy under the guidelines of NEP 2006
- State Action Plan on Climate Change with the objectives of NAP on CC
- Action taken report in respect of environmental related Supreme Court cases, like hazardous waste management, radiation pollution, shortage of drinking water, etc.

## **VI. Ongoing Plan Schemes :**

1. Eco-Development Programme
2. Environmental Information Dissemination
3. Environment Education Programme
4. Environment Monitoring Cell
5. Multi- Disciplinary Scientific Study of Catchment Area of Major Basins
6. Prevention and Control of Pollution
7. Solid Waste Management
8. Information Technology (IT)
9. Natural Resources.
10. Environment Impact Studies.
11. GIS Applications/Techniques/Tools/Training
12. Ecology and Environment (Conservation of Wetlands and Lakes)
13. Climate Change
14. Environmental Research and Developmental Programme
15. Environment Planning and Management
16. Management and Conservation of Waterbodies :
17. Cultural and Traditional Ecology



## **ONGOING PLAN SCHEMES IN DETAIL :**

### **1. ECO-DEVELOPMENT PROGRAMME :**

Main aim and basic target of this scheme is to apprehend further damage in the Ecosystem of this State. Under this scheme the Directorate is taking up programmes like setting up of Biodiversity Parks, Eco-Parks, landscaping/land development and tree plantation programme at School/Colleges and other important places of Manipur. A Biodiversity Park at Jiri has also been set up and the improvement work still continues as well as Biodiversity Conservation and Beautification of Irong Waterbody, Luwangshangbam has also been set up and the improvement work is under progress.

All these programmes are focusing on the conservation of biodiversity, in-situ & ex-situ conservation of indigenous flora, landscaping, land development and Eco-tourism approaches with proper application of Indigenous Technical Knowledge (ITK) and scientific know-how with current international approaches by conducting detail study on threatened / endangered / extinct species of flora of the region.

The efforts and plan of the programme to develop Eco-Parks in School/Colleges and other suitable places of the state is also to create environmental awareness among the general public , School/college students, researchers and academicians. Under this scheme this office is taking up various programmes like beautification , landscaping , land development by planting indigenous and ornamental plants in the strategic places and schools/colleges of each district .

State Botanical Garden (SBG) has also been set-up at Khonghampat. Efforts are also being made to improve the State Botanical Garden (SGB) as well as to restore the natural ecosystem . Not only this this Directorate has identified and started spade works in some important places like Kangkhui Mangsor cave, Shirui Hill in Ukhrul District , Heibok Ching, etc.

#### **Financial Outlay :**

**B.E. 2014-15 : Rs. 115.00 Lakhs**

**R.E. 2014-15 : Rs. 115.00 Lakhs**

#### **Some of the significant achievements under this Scheme during 2014-15 are :**

- a. Improvement of Biodiversity Park at Ningshingkhun, Jiribam
- b. Biodiversity Conservation and beautification of Irong wetland at Luwangshangbam
- c. Beautification and improvement of Eco-Park at Mayangkhang, Senapati
- d. Improvement of State Botanical Garden at Khonghampat
- e. Improvement of Laphupokpi Eco-Park, Imphal East
- f. Establishment/Improvement of Eco-Parks at Schools/Colleges/Institutions etc
- g. Conservation of Urban Biodiversity/Water Bodies/Community Ponds
- h. Eco-development & Landscaping of Kangla



## 2. ENVIRONMENT EDUCATION PROGRAMME :

Under this scheme efforts are being made to educate about the purpose natural environments particularly, how human beings can manage their behavior and ecosystems in order to live sustainably. Efforts are also being made to create mass public awareness on various environmental issues and problems, their remedial measures etc., by organising Seminars, Workshops, street rallies, bicycles parades, essay and poster competitions in schools, tree planting, recycling efforts, clean-up campaigns and much more at various levels and also by observing other important International/World Events/Day/Month. This Directorate also focuses on :

- Awareness and sensitivity about the environment and environmental challenges
- Knowledge and understanding about the environment and environmental challenges
- Attitude concern for the environment and help to maintain environmental quality
- Skills to mitigate the environmental problems
- Participation for exercising existing knowledge and environmental related programs.

### Some of the significant achievements under this programme during 2014-15 are:

- a. Various Nos. of NGO's / Clubs / Academic Institutions / Organisations were given financial assistance for organising Environment Education / Awareness Programme to promote the local Environment conscious Citizen
- b. Financial assistance are provided to prominent Academicians/ Scientists/Educationists for attending International /National Seminar/Workshop/Congress

### Financial Outlay :

B.E. 2014-15	: Rs. 15.00 Lakhs
R.E. 2014-15	: Rs. 15.00 Lakhs

## 3. ENVIRONMENTAL MONITORING CELL :

**Environmental monitoring** describes the processes and activities that need to take place to characterize and monitor the quality of the environment. Environmental monitoring is used in the preparation of environmental impact assessments, as well as in many circumstances in which human activities carry a risk of harmful effects on the natural environment.

Conservation, monitoring & research on wetlands & river system of Manipur are being the major ongoing activities for which it aims to maintain a baseline environmental information system on quality of water resources, specially lakes, wetlands & rivers of Manipur. Action plan on some of the major rivers & wetlands of Manipur along with its pre-feasibility report has also been prepared.



Moreover, the existing Environment Monitoring Research & Development Laboratory of this Directorate is one of the leading, well equipped and a referral laboratory in the state. Some of the major activities and continuing works of the laboratory are :

- technical monitoring, research & development works on state of environment;
- creation of baseline environment data bank of the state;
- Quality Monitoring of Wetland & its Ecosystem
- Quality Monitoring of major rivers & its Ecosystem
- extension of laboratory facilities & facilitating of environmental data / information to the governmental organizations during preparation of DPRs;
- conducted case studies on environmental issues like sudden decrease of oxygen at rivers, lakes, etc.

**Financial Outlay :**

**B.E. 2014-15 : Rs. 20.00 Lakhs**

**R.E. 2014-15 : Rs. 20.00 Lakhs**

**Some of the significant achievements of the scheme during 2014-15 are :**

- a. Technical monitoring, research & conservation of the major wetlands of Manipur like developing of Wetland Information system and Baseline data bank on wetland ecosystem
- b. Monitoring & pollution abatement for rivers of the state;
- c. Installation of major sophisticated instrument like AAS, GC, etc.;
- d. Extension of laboratory facilities to the various individual researchers, scholars, institutions, universities, etc. and also environmental data / information to the governmental organizations during preparation of DPRs;
- g. Participating the National Drinking Water Quality Monitoring & Surveillance Programme in Manipur as State Referral Institute;
- h. Microbiological analysis of the drinking water in respect of communicable disease in the joint venture work with ICMR, Govt. of India;

#### **4. SOLID WASTE MANAGEMENT:**

**Waste management** is the collection, transport, processing or disposal, managing and monitoring of waste materials. The term usually relates to materials produced by human activity, and the process is generally undertaken to reduce their effect on health, the environment or aesthetics. Waste management is a distinct practice from resource recovery which focuses on delaying the rate of consumption of natural resources. All wastes materials, whether they are solid, liquid, gaseous or radioactive fall within the remit of waste management.

Under this scheme, various activities are taken up to manage the Solid Waste generated in the State. Some of the major activities/works covered in this programme are i) assessment, monitoring, quantization, quantization and characterization of the waste generated in the State ,ii) evaluation and auditing of the Solid



Wastes in relation to Acts & Rules including their proper management and Environmental impacts. The assessment results of this scheme works are being inputs for preparation of Solid Waste Management action Plan in Imphal City. Some of the major activities of the scheme may be highlighted as

- Scientific study, Inventorization, Quantitization & Qualitization of Wastes including Urban Solid Wastes, Hospital Wastes, Hazardous Wastes, etc;
- Modeling & preparation of Action Plan on Solid Waste Management for better environmental management in Imphal City;
- Field demonstration cum environmental awareness on domesticated solid waste management;
- R & D activities on multiplication of the microbes for microbiological composting;
- Targetted for permanent sanitary landfill ;
- Scientific composting for value addition .

**Financial Outlay :**

B.E. 2014-15 : Rs. 15.00 Lakhs

R.E. 2014-15 : Rs. 15.00 Lakhs

**Some of the significant achievements under this scheme during 2014-15 are :**

- a. Database on characterization and quantitization of municipal solid wastes including wastes generated from health care units in Imphal City has been prepared.
- b. Inventorization of hazardous wastes as per direction from Hon'ble Supreme court's rulings;
- c. Regular reporting of the information of hazardous wastes generated, disposal, storage, etc. in the state of Manipur to the Hazardous Waste Monitoring Committee, Ministry of Environment & Forests, Govt. of India;
- d. Formulated an integrated action plan for Improvement of Solid Wastes Management in Greater Imphal Area for better environmental management, specially catchment area of Nambul River;
- e. Assistance to NGO's / local bodies for solid wastes management & studies;
- f. Started joint venture research & development works along with experts from Manipur University & Central Agriculture University on different issues like :
  - ◆ propagation & multiplication of microbes for composting;
  - ◆ laboratory & field experiments on phumdie composting by using microbes;
  - ◆ vermin composting of the municipal wastes;
- g. Taking major role during preparation of Master Plan for Improvement of Solid Waste Management in Imphal city;

**5. ENVIRONMENTAL INFORMATION DISSEMINATION:**

Through this Scheme environmental problems/issues of the State is being easily delivered to the target groups in order to develop skills, attitudes and values so as to enable and encourage individuals in the promotion of sustainable development by their actions. Under this programme, creating of mass awareness and imparting environment education are made effective with the use of multi-media. Implementation of Environment Information



Dissemination programme is targeted to fill-up some of the gaps, in the field of environmental information, with the common people through the use of certain device like print, electronic and advance information technologies.

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**Some of the significant achievements under this programme during 2014-15 are :**

- a. Compilation of News items on environmental sensitive topics/issues/problems
- b. Identification of information and data gaps
- c. Data bank generation of the information gaps of the State of Environment Report (SoER) of Manipur to put on the Website
- d. Environment Information through electronic media for mass environmental awareness.

**Financial Outlay :**

**B.E. 2014-15 : Rs. 15.00 Lakhs**

**R.E. 2014-15 : Rs. 15.00 Lakhs**

**6. PREVENTION AND CONTROL OF POLLUTION :**

Manipur Pollution Control Board (MPCB) was constituted in 1989. Grant-in-aid is given to this board every year for effective implementation of Manipur Water Prevention and Control of Pollution Rules, 1991. Pollution Control Projects are also to be funded under this scheme. The MPCB is playing a major role for preventing Air & Water pollution by giving the consent to the small scale industries especially brick fields , sand and stone quarries etc.

**Financial Outlay :**

**B.E. 2014-15 : Rs. 210.00 Lakhs**

**R.E. 2014-15 : Rs. 210.00 Lakhs**

**7. INFORMATION TECHNOLOGY:**

Information technology is the use of computers and software to manage information, specializing in software development, computer networks and web development. The information technology is responsible for storing information, protecting information, processing the information, transmitting the information as necessary. With this scheme IT, we could be able to critically analyse problems in various environmental sectors and develop innovative solutions. Through major projects we can gain practical experience using IT applications and become professional in developing IT as an enabling technology. The terms "data" and "information" are not synonymous. Anything stored is data, but it only becomes information when it is organised and presented meaningfully.

The IT Scheme takes responsibility for selecting hardware and software products appropriate for this Directorate , integrating those products with organizational needs and infrastructure, and installing, customizing,



and maintaining those applications for the organization's computer users. Examples of these responsibilities include the installation of networks; network administration and security; the design of web pages; the development of multimedia resources; the installation of communication components; the oversight of email systems; and the planning and management of the technology lifecycle by which an organization's technology is maintained, upgraded, and replaced.

This scheme is also taking a major role in overall managing of the office's high-end computers , softwares improvement of infrastructures and other electronic devices/facilities like EPBX, internet, updation of office's website , support and management of computer-based information systems etc.

**Financial Outlay :**

**B.E. 2014-15 : Rs. 30.00 Lakhs**

**R.E. 2014-15 : Rs. 30.00 Lakhs**

**Some of the significant achievements under this scheme during 2014-15 are:**

- i. Internal and External Connectivity of Office computers and upgradation of licensed softwares
- ii. Overall maintenance of office website (<http://www.environmentmanipur.com>)
- iii. Development of Infrastructure and Improvement of IT materials

**8. MULTI-DISCIPLINARY SCIENTIFIC STUDY OF CATCHMENT AREA OF MAJOR RIVER BASIN :**

Main aim and basic target of this scheme is to improve major river basins & its catchment area of the state through environment based multi-disciplinary scientific and socio- economic action programmes. Under this scheme this Directorate has been taking up scientific survey for improvement of ecosystem of major river catchment in all districts.

Under this scheme some R & D activities on different issues specially environmental profile of hill districts, deforestation & jhuming issues, water resources & its management, health information in respect of its environmental statistics, documentation & cataloging of flora & fauna, etc. has been taking up. Some of the major activities of this scheme are

- Environmental Impact Studies and survey at Imphal River basin;
- Joint venture research & development activities with MU / CAU / RIMS, etc. on different issues like breeding on indigenous fish identification of critical indigenous plants chemical extraction of medicinal plants;

**Financial Outlay :**

**B.E. 2014-15 : Rs. 5.00 Lakhs**

**R.E. 2014-15 : Rs. 5.00 Lakhs**

**Some of the significant achievements under this scheme during 2014-15 are:**

- a. Data base creation of environmental information & its change detection on major river catchment of the state;
- b. Started joint venture research & development works along with experts from Manipur University & Central Agriculture University on different issues like
  - Breeding on indigenous fishes;





- Identification of critical indigenous plants;
- Chemical extraction of medicinal plants;
- Multiplication & culture of microbial diversity;
- Studies on jhuming & deforestation;
- Started preparation of environmental sensitive mapping;
- Studies on health impact & environmental statistics;

## 9. NATURAL RESOURCES :

Under this Scheme this Directorate is taking up works relating to conservation of Natural Resources like Forests, Flora/Fauna and Harvesting of rain water as well as to make proper use of the natural resources. For example , Jhuming, the primary livelihood support system of the tribal communities is becoming unsustainable. Increase in Jhum Area, the intensity of Jhuming & decrease in the Jhum cycle due to high population growth, are destroying the forests and the rich biodiversity, making it on the verge of becoming totally degraded due to loss of top soil, fertility and vegetative cover ultimately turning into a barren wasteland. Scientific Research and Development works in connection with Scientific Wastes Management as well as conservation work of indigenous fishes and plants have been started in collaboration with CAU, MU and Experts.

### Financial Outlay :

B.E. 2014-15 : Rs. 20.00 Lakhs

R.E. 2014-15 : Rs. 20.00 Lakhs

### Some of the significant achievements under this scheme during 2014-15 are:

- Study and Collection with documentation of district level Natural Resources Information and conservation works
- Survey/Collection/Collation and R&D on indigenous Bioresources
- Assessment of species distribution of wetlands ecosystem
- Indigenous Flora Species Conservation at Imphal West & East
- Indigenous Flora Species Conservation at Imphal Thoubal & Bishnupur
- Conservation of Biodiversity at Kakching and Churachandpur

## 10. ENVIRONMENTAL IMPACT STUDIES:

Environmental impact assessment (EIA) is an assessment of the possible positive or negative impact that a proposed project may have on the environment, together consisting of the environmental, social and economic aspects. The purpose of the assessment is to ensure that decision makers consider the ensuing environmental impacts when deciding whether to proceed with a project.

Under this scheme, this office is planning to take up works relating to pre - & post - environment impact studies on the existing & forth coming developmental projects in the state which could lead to environmental degradation.



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**Financial Outlay :**

**B.E. 2014-15 : Rs. 10.00 Lakhs**

**R.E. 2014-15 : Rs. 10.00 Lakhs**

**Some of the significant achievements under this scheme during 2014-15 are:**

- a. Post EIA on the major ongoing developmental projects
- b. Pre-EIA on the major forthcoming ongoing developmental projects
- c. Installation of mini mobile district level environment impact assessment units

**11. GIS APPLICATIONS/TECHNIQUES/TOOLS/TRAINING:**

A geographical Information System (GIS) is a set of tools for storing and analyzing spatially referenced data and is made up of a number of subsystems. It can be used for scientific investigation, resource management, biodiversity characterization and developmental planning. Under this Scheme, this office has been taking up works in connection with the setting up of a full fledged GIS Laboratory and thereby acquired some of the High End systems and software with a meager amount every year .

The main objective for setting up this GIS Lab is to increase the Capabilities of Department by providing Better Information System, Easily Accessible Storage and Collection. Also in order to assist Planning and Programming of Implementation and Management of Schemes in the state. Under this Scheme this office is setting up a Geographical Information System Laboratory in order to formulate a descriptive Environmental Planning and Projects.

**Financial Outlay :**

**B.E. 2014-15 : Rs. 35.00 Lakhs**

**R.E. 2014-15 : Rs. 35.00 Lakhs**

**Some of the significant achievements under this scheme during 2014-15 are:**

- a. Procurement of Equipment such as High End Hardware Systems,Plotter, Scanner,tools etc.
- b. Procurement of GIS Softwares e.g Integraph Geomedia, ERDAS, ARC GIS etc. for Image analysis processing and interpretation.
- c. Procurement of Satellite Image/Data/ Maps and GIS Mapping for Environmental Sensitive Zones of Manipur

**12. ECOLOGY AND ENVIRONMENT (Conservation of Wetlands and Lakes):**

Wetlands and Lakes are ecosystems whose formation, processes and characteristics are determined by water. These ecosystems are diverse both in terms of physic-chemical, biological and socio-economic characteristics as well as geographical distribution. Floodplain, marshes, deltas, swamps, peat lands, bogs, reservoirs, rivers and lakes are all types of wetlands.

The state of Manipur has wide floral and faunal diversity, high percentage of endemism as well as hosts of species which are presently at various degrees of threat. Thus for the protection , conservation and regeneration of



the flora and fauna of the state wetland as well as the water bodies of the state being depleted due to developmental programmes and encroachment for settlement, the necessity of conservation of the wetland and waterbody is seriously felt.

**Some of the significant achievements under this scheme during 2014-15 are:**

- a. De-silting / weeds cleaning / development & improvement of Yaralpat waterbody wetland
- b. De-silting / weeds cleaning / development & improvement of Waithou and associated water bodies
- c. Improvement of Sanapat Wetland conservation programme.
- d. Improvement and maintenance of water body at Imphal West.
- e. Water harvesting programme.
- f. Improvement and maintenance of other water body of the state/Eco-demonstration park at hill districts

**Financial Outlay :**

<b>B.E. 2014-15</b>	<b>: Rs. 335.00 Lakhs</b>
<b>R.E. 2014-15</b>	<b>: Rs. 335.00 Lakhs</b>

**13. CLIMATE CHANGE:**

**Climate change** is a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions, or in the distribution of weather around the average conditions (i.e., more or fewer extreme weather events). Climate change is caused by factors that include oceanic processes (such as oceanic circulation), variations in solar radiation received by Earth, plate tectonics and volcanic eruptions, and human-induced alterations of the natural world; these latter effects are currently causing global warming, and "climate change" is often used to describe human-specific impacts. The most important contributor to global warming is the increase in atmospheric CO<sub>2</sub> levels due to human activity. Since CO<sub>2</sub> is consumed by Plants and Trees (known as carbon – sinks), reversing deforestation and implementing reforestation programmes may reduce levels in the atmosphere. Under this Scheme this office is setting up to take up mechanism concerning to **Climate Change** in the context of Manipur state as well as to contribute a recovered and healthy environment in the global environmental scenario.

**Financial Outlay :**

<b>B.E. 2014-15</b>	<b>: Rs. 30.00 Lakhs</b>
<b>R.E. 2014-15</b>	<b>: Rs. 30.00 Lakhs</b>

**Some of the significant achievements under this scheme during 2014-15 are:**

- a. Strengthening / augmentation of the Climate Change Cell of the office
- b. Procurement of Green House Gas Sampler
- c. Preparation of Climate Change Adaptation Strategy & Action Plan of Manipur
- d. Installation of Climate Sensor for weather monitoring



#### **14. ENVIRONMENTAL RESEARCH AND DEVELOPMENTAL PROGRAMME:**

Under this Scheme this office is taking up system relating to **Environmental Research and Developmental Programme** for the state of Manipur in order to create annual environmental reports and concrete data which are to be put up in the office's website as well as in the printed form.

##### **Financial Outlay :**

**B.E. 2014-15 : Rs. 50.00 Lakhs**

**R.E. 2014-15 : Rs. 50.00 Lakhs**

##### **Some of the significant achievements under this scheme during 2014-15 are:**

- a. Procurement of sophisticated instrument for environment quality analysis /Others
- b. Studies on health impact & environmental statistics
- c. Joint venture R & D Works with CAU / MU, namely
  - i. documentation of fish diversity of Manipur,
  - ii. documentation of newly introduced plants & animals,
  - iii. environmental change detection in geography of Manipur
  - iv. multiplication of microbes for waste composting
- d. documentation of wetland biodiversity Joint venture R & D Works with CAU/MU on different environmental themes
- e. Joint venture R & D works for indigenous fish culture / multiplication of microbes for composting of wastes
- f. Joint venture research works in different environment & ecology topics with other local experts/ institutes / scholars
- g. Enhancement of indigenous traditional knowledge (ITK) in respect of environmental management like conservation of indigenous threatened species, bio-pesticides, bio-fertilizers, waste to energy, etc

#### **15. ENVIRONMENT PLANNING & MANAGEMENT**

The approach of this scheme is to focus on management issues as key to the success of environmental planning program. Environmental problems are not purely scientific; some of the major problems deal with poor management and the inability to involve people in environmental decision making process. The highest priority problems -sanitation and drainage, solid waste management, degradation of environmentally sensitive land, uncontrolled emissions, accidents linked to congestion, and improper disposal of hazardous waste, problems that result in poor health, lower productivity, reduced income and quality of life. We need a proven planning framework and strategic approach for addressing the environmental issues .

Environmental Management Planning gives us the tools to assess and manage environmental issues during every phase of a project or operations. The outcome will minimize the risk of costly, time-consuming environmental issues, while maximizing productivity, bottom-line performance and goodwill.

Under this Scheme this office is starting to take up an adequate work in order to maintain environmental sustainability in the forthcoming developmental projects in the state as well as land use pattern and its impact, trend



of urbanization in relation to increase of population, use of Agricultural land for unagricultural activities etc. This scheme also focuses in identification and creation of environmental sensitive zones/greeneries in urban areas as well as the issues concerning the structure modification of the city. E.g. the road connectivity and city infrastructure for reducing traffic volume and to promote a green city.

**Financial Outlay :**

**B.E. 2014-15 : Rs. 10.00 lakhs**

**R.E. 2014-15 : Rs. 10.00 Lakhs**

**Some of the significant achievements under this scheme during 2014-15 are:**

- a. Action Oriented Workshops / Human Resource Development Programme
- b. Identification/Creation of Environmental Sensitive areas/zones in urban.

**16. MANAGEMENT AND CONSERVATION OF WATERBODIES :**

The objective of this scheme is to improve the water quality of the rivers, which are the major fresh water sources in the state, through the implementation of pollution abatement schemes.

**Current status of urban water bodies :**

1. Facing various degrees of environmental degradation due to encroachments, eutrophication & siltation.
2. Increasing population in urban areas is targeting the water bodies as sinks for contamination.
3. Anthropogenic pressures like infrastructure development, housing & encroachments of river beds coupled with public effluent sources are the prime factors for degradation of urban water bodies.
4. Biodiversity is threatened ; flood absorption capacity completely lost.
5. Prolific growth of water hyacinth in urban water bodies have resulted in breeding of disease

**Financial Outlay :**

**B.E. 2014-15 : Rs. 100.00 lakhs**

**R.E. 2014-15 : Rs. 100.00 Lakhs**

**Some of the significant achievements under this scheme during 2014-15 are:**

- i. Development / management / improvement of existing water resources / wetlands / community ponds at all the districts
- ii. Conservation, protection & restoration of water bodies in every district
- iii. Interception and diversion works to capture the raw sewage flowing into the river through open drains and divert them for treatment
- iv. Initiation of Constructed Water bodies in every district

**17. CULTURAL AND TRADITIONAL ECOLOGY :**

Cultural ecology is one of the two major subdivisions of human ecology, the other being human biological ecology. Culture learned and shared behavior in humans is the fundamental element that sets the human apart from



the other animals. All people and culture are faced with a number of major environmental issues, problems that can be addressed by anthropology and cultural ecology. Human everywhere are virtually the same biological species but have been able to adapt to the enormous environmental diversity of earth through culture.

Manipur has its own unique culture and tradition pertaining to environment and ecology. The sacred groves and community groves are found to have a confined traditional belief that take a big role in the conservation of indigenous species such as forests and groves etc. Taking up of conservation measures for heritage site and places of the state too may be considered as equally important. Some of the important aspects in the field of environment and ecology are the promotion and conservation of the indigenous and traditional knowledge systems as well as promotion of enhancement of conservation methods and practices of indigenous crops and traditional farming being and important part to conserve the environment. Therefore, implementation of the scheme on Cultural/Traditional Ecology is targeted to promote the ethno tribal's conservation and preservation practices of the hill people of this state inhabiting in a diverse way since the time immemorial in order to improve their livelihood.

**Financial Outlay :**

<b>B.E. 2014-15</b>	<b>: Rs. 15.00 lakhs</b>
<b>R.E. 2014-15</b>	<b>: Rs. 15.00 Lakhs</b>

**Some of the significant achievements under this scheme during 2014-15 are:**

1. Sacred groves/ Sacred sites/ community groves conservation and plantation in Imphal East, Imphal West, Thoubal and Bishnupur districts
2. Heritage site conservation and plantation in Imphal East, Imphal West, Thoubal and Bishnupur districts
3. Documentation of Indigenous and traditional knowledge system for 5 hill districts.

**Direction and Administration:**

Under "Direction and Administration" , augmentation of existing office Infrastructure ,tools and improvement of office building are being taken up as well as procurement of Books, Stationery items, replacement of ink cartridges for office computer printers, Furnitures / Almirah, computer maintenance and time to time upgradation of computers etc are also taken up.

**Financial Outlay :**

<b>B.E. 2014-15</b>	<b>: Rs. 70.00 Lakhs</b>
<b>R.E. 2014-15</b>	<b>: Rs. 70.00 Lakhs</b>

**VII. Ongoing CSS Schemes :**

- a. Manipur ENVIS Center under MoEF, Govt. of India
- b. National Environment Awareness Campaign under MoEF, Govt. of India.



**REVIEW OF PROGRESS AND ACHIEVEMENT DURING ANNUAL PLAN 2014-15 :**

Sl. No.	Name of Programmes/Works	Annual Plan 2014-15	
		Physical Achievement	Financial (Revised) (Rs. In lakh)
1.	Ningshingkhun Biodiversity Park, Jiribam	Completed	
2.	Biodiversity Conservation & beautification of Irong wetland (Luwangsangbam) with eco-tourism approach	Completed	
3.	Beautification and improvement of Eco-Park at Mayangkhang, Senapati	Completed	
4.	Seloi Eco-park, Imphal East	Completed	
5.	Improvement of Road median plantation in and around Imphal city	Continuing	
6.	Improvement of State Botanical Garden at Khonghampat	Continuing	
7.	Conservation of Urban Biodiversity/Water Bodies/Community Ponds	Continuing	
8.	Updating of website - ( <a href="http://www.environmentmanipur.com">http://www.environmentmanipur.com</a> )	Annually updated	
9.	Community Biodiversity Conservation Programme taken up in each and every district.	continuing	
10.	Various Environmental Reports and Booklets, Newsletters, Posters, Pamphlets etc. have been published.	Published every year	
11.	Environmental Awareness Programme to different villages/towns/city through NGOs, Schools/Colleges, Mahila Mandals etc. under National Environmental Awareness Campaign, MoEF, Govt. of India	Conducted Every year	
12.	Small screen films about the various Environmental Problems/Issues of the State for imparting knowledge through electronic media	Produced every year	
13.	International and National Environmental Events throughout the year by organizing Seminars/Workshops/Rally/Conference/ Competitions	Observed as a routine feature programme	
14.	Study on catchment area of major rivers	continuous programme.	
15.	Environment Information Dissemination	All districts through Electronic media	
16.	Augmentation of GIS by procuring High – end Hardware / Softwares / tools / equipment for Image analysis processing and interpretation	Continuous programme	
17.	Procurement of Satellite Image/Data/Maps & GIS Mapping for Environmental Sensitive Zones of Manipur	Continuous programme	
18.	Conservation of Yaral Pat/ Water bodies.	Continuing	
19.	Conservation of Waithou and associated water bodies	Continuing	
20.	Procurement of Climate Sensor and Green House Gas Sampler	All district	
21.	Preparation of Climate Change Adaptation Strategy & Action Plan of Manipur	Undergoing	
22.	Joint venture R & D Works with CAU/MU on different environmental themes	Continuing	
23.	Joint venture R & D works for indigenous fish culture / multiplication of microbes for composting of wastes	Continuing	
25.	Heritage site conservation and plantation in Imphal East, Imphal West, Thoubal and Bishnupur districts	Continuing	
26.	Development / management / improvement of existing water resources / wetlands / community ponds at all the districts	Continuing	
	<b>Total :</b>		<b>1100.00</b>



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