



ENVIS

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Lake Conservation in Tamil Nadu



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A lake is a body of water, of considerable size, localized in a basin, which is surrounded by land apart from a river or other outlet that serves to feed or drain the lake. There are a number of lakes in Tamil Nadu and is an integral part of State as the water of these lakes is supplied to many cities and are main tourist attractions in their respective places where they are situated. Many lakes are artificial and are constructed for industrial or agricultural use, for hydro-electric power generation or domestic water supply, or for aesthetic or recreational purposes. Changes in the level of a lake are controlled by the difference between the input and output compared to the total volume of the lake. Significant input sources are precipitation onto the lake, runoff carried by streams and channels from the lake's catchment area, groundwater channels and aquifers, and artificial sources from outside the catchment area. Output sources are evaporation and any extraction of lake water by humans.

Lakes of Tamil Nadu

Tamil Nadu is endowed with 39,202 lakes. These lakes are under the control of PWD, local bodies like Corporations, Municipalities, Panchayat Unions and other departments. Lakes around Chennai namely Puzhal,

Chembrambakkam and Poondi, are used as main drinking water sources for Chennai metropolis. Lakes at Ooty, Kodaikanal and Yercaud are main attraction to the tourists. Lakes at Vedanthangal, Pulicat and others are breeding sites for migratory birds.

Environmental Concern

Rapid urbanization is increasing the developmental pressure on residential, industrial and commercial facilities. This leads to encroachment on bunds and catchment area, entry of sewage and dumping of solid waste into water bodies. Due to encroachment, inlets and outlets are damaged and the lakes have lost its area, storage capacity resulting in deterioration of water quality and loss of biodiversity.

National Lake Conservation Plan (NLCP)

Recognizing the importance of lakes, Ministry of Environment & Forests, Government of India, launched the National Lake Conservation Plan (NLCP), a Centrally Sponsored Scheme exclusively aimed at restoring the water quality and ecology of the lakes in different parts of the country. The scheme was approved by Government of India during IX Plan (June 2001) as 100% Central Grant.

Funding pattern under NLCP has since been changed with effect from February, 2002 from 100% central funding to 70:30 costs sharing between the Central and the concerned State Government.

Environment Management Agency of Tamil Nadu (EMAT)

Considering the importance of environmental amelioration and ecological restoration of the water bodies in the state, the Government of Tamil Nadu has constituted the Environment Management Agency of Tamil Nadu (EMAT) in the Department of Environment, during the year 2002 under the Societies act. The co-ordination of the execution of the National Lake Conservation Programme (NLCP) and National River Conservation Programme (NRCP) of the NRCD, Government of India was undertaken by the EMAT. EMAT obtained the detailed project reports from the implementing departments and co-ordinated with NRCD for administrative and expenditure sanctions of the NRCP and NLCP.

Necessity for Revival of Ooty and Kodaikanal lakes

Before 1996, the entire sewage generated from the Ooty municipality was allowed to enter into the lake without any treatment. The lake water was infested with aquatic weeds like water hyacinth and submerged aquatic weeds. The water hyacinth spread over the lake and surface water was dark greenish in color. The lake had become dead and no living organism existed in the water. Similarly, Kodaikanal lake which was created in 1863 is a main tourist attraction in Kodaikanal. However, the water became highly polluted and the eco-system became dead because of the entire sewage generated from the Kodaikanal Municipality was allowed to enter into the lake without any treatment.

Revival of Ooty and Kodaikanal lakes

Government of Tamil Nadu initiated revival of Ooty lake under National Lake Conservation Plan. The works carried out under revival of Ooty lake were de-weeding water hyacinth, aeration using compressors (increasing DO) and bioremediation. The works were executed by PWD in coordination with EMAT. In respect of Kodaikanal lake in addition to the above, interception and diversion works, treating the sewage and construction of toilets (Low cost sanitation) were also carried out.

Though the remediation was successful in Ooty, in view of the continued letting of sewage water in the intervening period, the quality of water had once again deteriorated. On seeing reports about the deterioration of the quality of water in this lake as well as in some other water bodies, Hon'ble Chief Minister of Tamil Nadu directed that all the polluted water bodies especially the Ooty Lake must be cleaned up immediately on a war footing basis and maintained without further pollution. As per the instruction of the Hon'ble Chief Minister of Tamil Nadu, the first and second treatment of spraying of Nualgi Nano liquid Bio Remediation has been completed and the test report reveals that the bad odour and bacterial load has been reduced and Dissolved oxygen (DO) level has been increased. The works other than the above proposed for the Conservation of Ooty Lake has been sanctioned under EPRED Fund for the year 2013-14.



Institutional setup for the protection of Lakes in India

Government Institutions

Technically, in urban areas, water bodies are owned by land owning agencies. However, their survival and protection depend on the role of a number of other institutions /agencies such as Ministry of Water Resources, Ministry of Environment and Forests, Agriculture Ministry, Fisheries Ministry and other local authorities, i.e., Municipal Corporations, Development Authorities, Tourism Department, Water Supply Boards, etc. At the Central Government level, Ministry of Environment and Forests (MoEF) plays an important role in restoration of lakes in India under its initiative called National Lake Conservation Plan (NLCP) developed in 2001 specifically for the protection and management of lakes. However, it must be noted here that water being a State subject, the Centre has a limited authority when it comes to the management and protection of urban water bodies. In order to execute its agenda, MoEF have asked all States to constitute City Level Monitoring Committees (CLMCs) for all river and lake conservation projects and to aid coordination between the Centre, States and urban local bodies. MoEF shares 70% of the involve cost of the restoration projects under NLCP.

Lake Management Authorities

Authorities for lake management and conservation have also been set up in many parts of the country, such as, Bhoj Wetland Authority for the restoration and management of Bhoj wetlands in Madhya Pradesh, Chilka Development Authority (CDA) in Orissa for the Chilka Lake, Loktak Development Authority

(LDA) for Loktak lake in Manipur, Lake Development Authority Bangalore (Karnataka) for Bangalore lakes, J&K Lakes and Waterways Development Authority for Jammu and Kashmir Lakes, Hyderabad Urban Development Authority for Hyderabad lakes in Andhra Pradesh, East Kolkata Wetlands Management Authority for the conservation and management of a large number of waterbodies in district 24 Parganas in West Bengal and Jal Vikas Samiti in Udaipur (Rajasthan). These special Purpose Vehicle are playing an important role in the protection and management of waterbodies in India. As the legislation does not give the responsibility for management of waterbodies to a specific agency, these Special Purpose Vehicles are empowered to enforce provisions of the legislation. For example, Jammu and Kashmir Lake and Waterways Development Authority has the powers to grant or not to grant permissions for construction and has enforcement powers against illegal activities in the entire catchment area of Dal Lake.

In order to monitor Ooty Lake, a Lake Management Committee has been constituted with the District Collector as Chairman and with representatives from PWD, Municipality, TWAD Board, TNPCB, Forest Dept., Tourism Dept., Tamil Nadu Generation & Distribution Corporation Ltd., local representatives and registered non Government organization.

Non Government Organizations

Apart from government bodies, a number of national and international non-government organizations such as WWF, UNDP, UNEP, World Bank and many other small local organizations/Citizen Groups such as Neela Hauz Citizen Group in Delhi and Save Urban Lakes in Bangalore, are also involved in lake conservation and restoration.



EVENTS

Review of the Department of Environment by the Hon'ble Minister for Environment

The Hon'ble Minister for Environment Thiru Thoppu N. D. Venkatachalam, reviewed the activities of the Department of Environment at the Tamil Nadu Pollution Control Board on 3rd January 2014. Dr. D. Karthikeyan, I.A.S., Chairman, TNPCB, Dr. H. Malleshappa, I.F.S., Director of Environment, along with other senior officials of the Department of Environment and TNPCB were present during the review.



Dr. H. Malleshappa, I.F.S., highlighted the various activities of the Department of Environment. The Hon'ble Minister for Environment appreciated the various initiatives taken by the Department of Environment and ENVIS Centre.

Workshop on "Plastic waste and pollution"

The C.P.R. Environment Education Centre conducted a two days workshop on "Plastic waste and pollution" for school teachers on 7th January 2014 at the C.P.R. Environment Education Centre, Chennai. Dr. Jayanthi M., I.F.S., Additional Director, Department of Environment,



inaugurated the workshop and delivered the inaugural address. About 150 NGC teachers from Chennai East District schools participated in this event. Microbiologists from CPREEC lab demonstrated water purification techniques and the ill effects of un-safe, drinking water. Thiru G.Thangaraj, EIDC in-charge, Chennai East, Thiru L. Durai, NGC State coordinator and ENVIS staff also participated in the event.

Awareness programme on smokeless bogi

The Department of Environment, in collaboration with the Tamil Nadu Pollution Control Board conducted awareness to the general public on smokeless bogi. This awareness initiative was carried out by engaging auto rickshaws and by using banners and mega phones to decimate awareness on the harmful effects of smoke emitted by burning tyres and plastics. The inauguration of the awareness programme was held at the Chennai Higher secondary school, Maduvinkarai, Chennai -32, on 9th



January 2014. The event was flagged off by Hon'ble Minister for Environment Thiru Thoppu N. D. Venkatachalam, and the worshipful Mayor, Thiru Saidai S. Duraisamy. Thiru Mohan Verghese Chunkath, I.A.S., Principal Secretary, Environment and Forest Department,



Dr. D. Karthikeyan, I.A.S., Chairman, Pollution Control Board, Dr. H. Malleshappa, I.F.S., Director, Department of Environment along with officials of the Tamil Nadu Pollution Control Board, Department of Environment and the ENVIS centre participated in this event. Members of legislative Assembly, Chennai Corporation officials, Government Officials and more than 500 students and general public participated in this event.

Inauguration of Environmental Information Dissemination Centre (EIDC) in Thenkasi

The Environmental Information Dissemination Centre (EIDC) in Thenkasi, was inaugurated by Thiru P. Chendur Pandian, Hon'ble Minister for Tourism, Culture and Religious Endowments on 12th January 2014. An oath on environmental protection was read out by the Hon'ble Minister. Dr. H. Malleshappa, I.F.S., Director, Department of Environment, Thiru M Karunakaran, I.A.S., District Collector, Thirunelveli, Mr. Jeyakannu, Chief Educational Officer, Dr. G. S. Vijayalakshmi, District Coordinator, Thenkasi and staff of the ENVIS centre also participated. More than 500 school students participated in the event.



Chennai Science Festival 2014 - "Science for Life"



The Chennai Science Festival – 2014 "Science for Life" was organized from January 29th to 1st February 2014 at Anna Gem Science Park matriculation Higher Secondary School Campus. ENVIS Centre, Department of Environment, Saidapet, Chennai-15 displayed a stall with 30 posters on Environment Protection. Approximately 1,00,000 people, including 60,000 students visited the Science Exhibition.

Environmental awareness competitions

Environmental awareness competitions (Drawing, Essay and Quiz) were conducted for the NGC students of Chennai District at R.K.M Sarada Vidyalaya Girls H.S. School, T. Nagar on 11th February 2014. Dr. Jayanthi, M., I.F.S., Additional Director, Department of Environment inaugurated the competitions as a part of Departments initiatives to create Environmental awareness to the school students.



Cycle rally to create environmental awareness

The Department of Environment and the ENVIS Centre in collaboration with the Tamil Nadu Pollution Control Board conducted a cycle rally to create environmental awareness to the general public on reducing pollution on 20th February 2014. The event was flagged off by the Hon'ble Minister for Environment Thiru Thoppu N. D. Venkatachalam, and the worshipful Mayor, Thiru Saidai S. Duraisamy. Thiru L. Durai, NGC State coordinator, was honoured with a memento by the Hon'ble Minister for Environment for his awareness creation activities. Thiru Mohan



Vergheese Chunkath, I.A.S., Principal Secretary, Environment and Forest Department, Dr. D. Karthikeyan, I.A.S., Chairman, Pollution Control Board, Dr. H. Malleshappa, I.F.S., Director, Department of Environment along with officials of the Tamil Nadu Pollution Control Board and the Department of Environment, ENVIS participated in this event. Members of legislative Assembly, Chennai Corporation officials, Government Officials and more than 500 students also participated in this event.

Inauguration of the National Environment Awareness Campaign

Dr. H. Malleshappa, I.F.S., Director, Department of Environment inaugurated the National Environment Awareness Campaign which was held at Sri Sankara Vidhyalaya, Pallavaram, Chennai on 18th February 2014. The ENVIS staff also participated in this programme. After the inauguration tree saplings were planted by the Director of Environment in the school campus. The programme was convened by Dr. Mangalam Balasubramaniam, EXNORA, Pammal.



Paryavaran Mitra Purashkar awards 2013



The Paryavaran Mitra purashkar awards 2013 are given under four categories such as five best Districts, best Schools, best Teachers and best Students. Dr. H. Malleshappa, I.F.S., Director, Department of Environment handed over the prizes. The event was organized by the CEE, Chennai at the ICSA Programme Centre on 21st March 2014. Various NCG teacher coordinator, students and the staff of the ENVIS centre also participated in this programme.

The second review meeting of ENVIS part II scheme

The second review meeting of the ENVIS part II scheme “Preparation of District Environment profile for Eco sensitive areas in Tamil Nadu” was conducted on 27th March 2014 at the Forest Department Conference Hall, Panagal Building. Dr. H. Malleshappa, I.F.S., Director of Environment welcomed the gathering. The consultants who were present during the review meeting consented to redraft the report as per the comments and suggestions given by the various departments.



Awareness programme on Forest Conservation



The ENVIS centre, Department of Environment, to commemorate the World Forestry Day, conducted an awareness programme on Forest Conservation for the students of the Department of Botany, Madras Christian College, Tambaram, Chennai on 29th March 2014. Wildlife films such as Save our Sholas and the Truth about Tigers were played. During the interactive session, Dr. J.D. Marcus Knight, Senior Programme Officer, ENVIS, answered the question put forth by the students.

Earth hour 2014

Earth Hour a global campaign by World Wildlife Fund (WWF), Chennai, to raise awareness about climate change was observed from 8.30 p.m. to 9.30 p.m on March 29 at the Spencer plaza, Chennai. Thiru M.G. Devasahayam, I.A.S Retd., and Thiru Rajendra Ratnoo, I.A.S., inaugurated the programme. Various college students and the staff of the ENVIS centre also participated in the event.



Evaluation Workshop of Environmental Information System (ENVIS) Centres

The Ministry of Environment and Forests, Government of India held a three day National Interaction cum Evaluation Workshop of Environmental Information System (ENVIS) Centres during March 28-30, 2014 at Chintan Bhawan, Gangtok, Sikkim. The workshop was organised in collaboration with Sikkim State Council of Science & Technology. More than 120 participants from various ENVIS Centres, National Institutions and various State Government Departments participated in the interaction cum evaluation process for further strengthening of Environmental Information System in the Country.

Shri S. K. Shilal, Secretary, Department of Science & Technology delivered a welcome speech while Shri A. K. Srivastava, I.A.S., Chief Secretary, Sikkim, stressed on the protection of environment and need to have strong institutional instrument for repository of database and information system which ENVIS Centres can provide. Shri B. Brahma, Senior Economic Advisor, Ministry of Environment and Forests, who was the guest of honour, spoke about the mandate, funding and activities of ENVIS Centres. Two parallel sessions for evaluating the activities of the 68 Thematic and State Centres were carried out in the next two days of the workshop. Independent experts from reputed National Institutes evaluated the activities of various ENVIS centres for 2013-14. Thiru. K. Muthukumar, Programme Officer, ENVIS and Thiru. L. Durai, State Awareness Coordinator, represented the ENVIS Centre, Department of Environment, Government of Tamil Nadu and made a presentation of the activities of the ENVIS Centre, Department of Environment, Chennai.



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