

## CHAPTER - 8

### SCIENCE TECHNOLOGY & ENVIRONMENT

Revised Outlay & Expenditure FY 2015-16, Approved outlay & Revised outlay FY 2016-17 and Annual Outlay 2017-18 for Science, Technology & Environment Sector are as under:

[₹ in crore]

Department / Agency	Annual Outlay 2015-16		Annual Outlay 2016-17		Annual Outlay 2017-18
	Revised Outlay	Expenditure	Approved Outlay	Revised Outlay	
Environment	9.85	8.63	11.00	9.00	17.00
Forest	25.75	22.39	32.00	30.00	40.00
IT	10.40	6.90	36.00	4.00	33.00
<b>Total</b>	<b>46.00</b>	<b>37.92</b>	<b>79.00</b>	<b>43.00</b>	<b>90.00</b>

Total Outlay of ₹ 106 crore kept in B.E. 2017-18 on Environment & Forest. This includes revenue budget of ₹ 75 crore and capital budget of ₹ 31 crore. An amount of ₹ 57 crore is kept for implementation of various schemes, programmes and projects under Environment & Forest sector.

### ENVIRONMENT DEPARTMENT

Environmental problems are a threat to the well-being of the city's and area's inhabitants as well as the flora and fauna. Delhi is one of the most heavily polluted city in India, having for instance one of the country's highest volumes of particulate matter pollution. Overpopulation and the ensuing overuse of scarce resources such as water put heavy pressure on the environment in Delhi. The Department of Environment has been assigned responsibility of improving the overall Environmental Quality in Delhi. The Department is actively engaged in overall environmental assessment, monitoring, protection and awareness rising among the people of Delhi. Multi-dimensional approach is being adopted by the Department for promotion, conservation and preservation of Environment. The activities of Department of Environment are:

- Motivating citizens of Delhi to keep surroundings clean and green.
- Promoting an ethos of conservation of water by minimizing the use of water and wastage of water.
- Motivating the citizens to imbibe habits and life styles supportive of minimum waste generation, source separation of waste, disposing off the waste at the nearest storage point.
- Composting horticulture waste, to use it as manure for kitchen gardens, nurseries, parks etc.

- Creating awareness among public and sanitary workers to stop the indiscriminate burning of waste/leaves that causes air pollution.
- Sensitizing the citizens to minimize the use of plastic bags. Not to throw them in public places as they choke drains and sewers. Being non-biodegradable they cause water logging and provide breeding ground for mosquitoes. Also, to encourage the use of eco-friendly alternatives like jute, cloth and recycled paper bags, etc.
- Organizing Tree plantation programmes in schools, residential areas, parks, industrial areas etc.
- Creating awareness for celebrating festivals like Dusshera, Diwali, Holi in an eco friendly manner.
- Educating the citizens about reuse of waste material by promoting the concept of the three R's i.e. Reduce, Reuse and Recycle.
- Coordinating with the various Departments/Agencies to combat climate change issues such as energy conservation, water conservation by recycling of water, rain water harvesting, green building concept, use of renewable energy, installation of CFL, promotion of battery operated vehicle.

#### 1. **Integrated Waste Management and other related activities**

Budget Allocation 2017-18	:	₹ 60 Lakh
Revenue	:	₹ 10 Lakh
Capital	:	₹ 50 Lakh

#### **Aims and Objectives of the Scheme:**

- The policy intervention and land identification for setting up of disposal facility for management of different kinds of waste namely Hazardous, Bio-Medical, Electronic, Plastic, Fly ash, Construction & Demolition waste and Mercury waste etc. as per respective rules and regulations.
- A new aspect of decentralized green waste management with special emphasis on kitchen waste and horticulture waste has been added as a part of this scheme in order to reduce the pressure on Municipal Solid Waste (MSW) Landfills.

#### **Major Components of the scheme:**

- Site identification for establishment of waste disposal facilities
- Possession of Land for the hazardous waste Integrated Waste Disposal Facility
- Development of site and construction of boundary wall etc
- Hiring of consultancy services for EIA & for the development of the facilities for different kinds of waste disposal
- Promote Decentralized Green Waste Management through fiscal incentives
- Introduction, co-ordination of Buy Back Policy For recyclable Bottles/ containers

- Training and awareness programme on management of different wastes to all target groups.

Workshop on e-Waste Management for Bulk Consumers organized.

## **2. Climate Change & Other Activities**

Budget Allocation 2017-18 : ₹ 10 Lakh

### **Aims and Objectives of the Scheme:**

Promotion and facilitation of environment friendly projects for reduction in the emissions of Greenhouse Gases and addressing climate change related issues.

### **Major Components of the scheme:**

- To prepare the State Action Outlay for Combating Climate Change involving all the departments as per NAPCC format.
- Capacity building among the existing manpower for the purpose.
- Engaging experts / specialized consultants (on contract basis) as the focal points to coordinate CDM projects for earning carbon credits.
- Conducting various training programmes for all the stakeholders.
- National / International visit to understand / evaluate CDM project implementation better.
- Providing required resources in terms of Human Resource (on contract basis) & physical resources in terms of office accessories etc.
- Awareness creation for clean development mechanisms, maximum use of conventional source of energy and there by GHG reduction.
- Organizing National/ International Conference/Synopsis on the subject.

Promotion and facilitation of Environment friendly projects for reduction in the emissions of Greenhouse Gases, and addressing climate change related issues. Workshop/Seminar on climate change with concerned departments/local bodies/agencies to be conducted

### **Achievement**

Delhi State Action Outlay on Climate Change (SAPCC) beyond 2012 is being prepared on the lines of National Action Outlay on Climate Change (NAPCC).

## **3. Strengthening of Technical set-up in the Department of Environment**

Budget Allocation 2017-18 : ₹ 27 Lakh

#### **Aims and Objectives of the Scheme:**

- To provide infrastructure facility, manpower etc. in the Department to handle the increasing workload on pollution issues with respect to coordinate pollution control measures undertaken by various Departments in NCT of Delhi to control pollution.
- Policy formulation for overall environmental protection in Delhi. To implement the Govt. policies and various schemes for conservation of environment and control of pollution.
- To cope up with various new environmental frontiers that has emerged in recent years.
- To implement the Govt. policies, Hon'ble Court directions and various schemes for conservation of Environment and control of pollution in Delhi.

#### **4. Involvement of Weaker Sections of Society in improvement and up-gradation of the Environment**

Budget Allocation Outlay 2017-18: ₹ 11 Lakh

General : ₹ 10 Lakh  
SCSP : ₹ 1 Lakh

#### **Aims and Objectives of the Scheme are:**

This scheme will be implemented in association with schools, NGO's & RWA. This will include following points:

- To involve the weaker section population towards environment improvement programmes.
- To provide training as well as social security, hygienic facilities and safe waste handling to rag pickers etc.

Under this scheme, expenditure to be incurred on the items for safety equipments, fiscal incentives, and free distribution of environment related materials to weaker section etc.

#### **5. Public Environmental Awareness and Other Activities**

Outlay 2017-18 : ₹ 180 Lakh

#### **Aims and Objectives of the Scheme:**

To create public environmental awareness by educating public in general & different segments of the city such as school students, residential associations, women groups etc. through various means

- To carry out awareness campaigns namely “Greening Delhi”, “Say Yes to Eco-Friendly Bags”, “Save Yamuna”, “Anti Fire Crackers”, “Waste Minimization”, “Play Holi with Safe and Natural Colours” etc.
- Organizing environment related mass awareness programmes
- Organizing sponsoring and participation in environment related exhibition, Melas, workshops etc
- To enhance environmental awareness among public by using publicity media such as newspaper, outdoor, TV, theatre shows, radio mobile SMS, social media etc
- Observing various National and International Environment related Days such as World Environment Day

#### **Activities to be undertaken under the scheme:**

- Raising of environmental awareness level among the citizens of Delhi through various environmental campaigns by way of various publicity Medias.
- Organizing and sponsoring workshops/ exhibitions/seminars on various environmental issues and on various National and International Environment Days.

#### **Achievement**

- Department of Environment conducted various public environment awareness campaigns for the general public of Delhi.
- 6 No. of Conferences / Workshops Conducted on environmental issues.
- Ozone Day celebrated on 16<sup>th</sup> September 2016
- Participated in ‘Meri Dilli Utsav 2016’
- “Earth Day 2016” celebrated on 22<sup>nd</sup> April, 2016

#### **Targets 2017-18:**

- Workshops on various environment issues will be organized every month in which various stakeholders, experts will be invited for brain storming session so as to implement various initiatives.
- Public environment awareness campaigns for the general public of Delhi.
- Celebration of various important days i.e. Ozone Day, Earth Day etc.

- 12 No. of Conferences / Workshops to be conducted on environmental issues.

#### 6. Eco-Clubs in Schools and Colleges:

Budget Allocation 2017-18 : ₹ 400 Lakh

#### Aims and Objectives of the Scheme:

To create environmental awareness among the school & college students for environmental improvement and to inculcate the culture of eco-friendliness and environmental conservation among them.

#### Activities to be undertaken under the scheme:

- Conduction of various Environment Campaigns involving various schools & Colleges.
- Appreciation awards to Best Eco-club schools and colleges
- Various Competitions at State/ School / College level to be conducted including poster competition, quizzes, etc. and organizing Annual Eco-Meet and Vacation Programme for students

Presently Environment Department, GNCTD provides grant to the Eco-Clubs of an annual amount of ₹ 20,000/- per school/ college under the Outlay scheme "Eco-Clubs in Schools/ Colleges". Upto the year 2011-12, yearly grant of ₹ 10,000/- was given to each eco-club in schools/ colleges which has been enhanced to ₹ 20,000/- p.a. from the year 2012-13. Also Additional grant of ₹ 2500/- is given to only schools from Ministry of Environment & Forest, GOI as NGC (National Green Corps). The scheme was started with 100 schools during 1998-99 and now more than 2000 Eco clubs are established in Delhi Govt. schools/ Aided/ Public/ Private schools, NDMC school, KV/JNV and colleges of Delhi. The schools having class XI onwards are enrolled as Eco-Clubs. The various activities of the Eco-Clubs basically about the Environment awareness and to preserve, conserve and protect the Environment etc.

Present status of schools/ Colleges having Eco-Clubs in Delhi:

i)	No. of Private schools having Eco-Clubs	825
ii)	No. of Govt. schools having Eco-Clubs	1055
iii)	No. of Kendriya Vidyalaya having Eco-Clubs	46
iv)	No. of colleges having Eco-Clubs	150

**Total No. of schools/ colleges having Eco-clubs      2076**

### **Achievement 2016-17**

1614 schools and colleges have been given a total grant of ₹ 3.23 Crores @ ₹ 20,000/- to each school/ college.

### **Targets 2017-18**

- To increase the activities of environment awareness including construction of compost pits, tree census, biodiversity index in various schools and colleges, apart from inviting innovative ideas in environment protection through participation of children of school.
- Grant will be provided to 2000 Eco clubs in Delhi Govt. schools/ Aided/ Public/ Private schools, NDMC school, KV/JNV and colleges of Delhi.
- 6,00,000 number of students will be reached through Eco-clubs.
- 2.00 lakh saplings will be planted in schools through Eco-clubs.

### **7. Environment Data Generation, Survey, Research Project and Other Activities**

Budget Allocation 2017-18 : ₹ 30 Lakh

### **Aims and Objectives of the Scheme**

- To conduct need based environment surveys and data generation on continuous basis on Quantum of pollutants generated from sources such as industries, vehicles, thermal power stations and effect of hazardous, toxic waste, ambient air water sources (Surface & subsurface) and land.
- To update the environmental status through need-based surveys on various aspect of pollution, in order to assess the impact of pollution on human health and the overall environmental up gradation in Delhi.

### **Major Components**

- Data creation in respect of Vehicular Pollution, Air Pollution, Water Pollution, Noise Pollution, Land Degradation and other anthropogenic source of pollution.
- Assessment of impact of Pollution on environment.
- Research & Development studies on various environmental issues related to Delhi.

### **Achievement**

- Project on “Comprehensive study on Air Pollution and Green House Gases (GHGs) in Delhi” through IIT Kanpur has been completed and report has been submitted to Government of NCT of Delhi. IIT Kanpur has suggested a number of control measures and implementable solutions.

- Project of “Development of a pilot project of small capacity Bio-diesel Reactors from Waste Oil received from Restaurants/ Hotels/ Industry” awarded to DTU has been completed.
- Award of Project “Recycling of Silt from Storm Water Drains, Sludge from Water Treatment Plant (WTP)/ Sewage Treatment Plant (STP)/ Common Effluent Treatment Plant (CETP) and Ash from Waste to Energy Plant (WTE) for building construction”

#### **8. Assistance to NGO’s in the Promotion Conservation & Preservation of Environment**

Budget Allocation 2017-18	:	₹ 22 Lakh
General	:	₹ 20 Lakh
SCSP	:	₹ 2 Lakh

#### **Aims and Objectives of the Scheme:**

- To promote & assist various non-governmental organizations in the conservation, preservation of environment and pollution control activities.
- To implement various programmes of environment department through NGO's.

#### **9. Science Technology Awareness Programme**

Budget Allocation 2017-18	:	₹ 10 Lakh
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#### **Aims and Objectives of the Scheme:**

- To propagate science and technology issue among students.
- To create Scientific Temperament among the students.
- To conduct need based scientific survey and research.
- Involve youth on scientific projects.

#### **Target**

The objective of the scheme is to sensitize the students / public on various scientific issues. Under the Scheme, a programme of training Eco-Club teachers on GLOBE (Global Learning and Observations to Benefit the Environment).

#### **10. Delhi Parks and Gardens Society**

Budget Allocation 2017-18	:	₹ 385 Lakh
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General	:	₹ 360 Lakh (₹10 Lakh for Capital Assets)
SCSP	:	₹ 25 Lakh

### Aims and Objectives of the Scheme:

- To maintain the parks and garden of Delhi under Delhi Government.
- To involve NGOs, Corporate in maintaining developing the parks of Delhi under Delhi Government.
- To involve NGOs, Corporate in maintaining developing the parks under PPP.

### Achievements 2016-17

Financial Year	No. of RWAs/ NGOs	No. of Parks	Covering Area (in Acres)
2016-17	289	1370	431.91

### Performance During 2016-17

- Implemented the Joint Park Management Scheme of DPGS under Department of Environment, Govt. of NCT of Delhi, including new areas measuring almost **431.91 Acres** with the participation of 289 **RWA/NGO**, covering **1394 Nos.** of parks.
- Carried out monitoring of parks under various civic agencies like MCD, NDMC, DDA, CPWD for inventroization and categorization of status leased on its development status, i.e., well maintained, satisfactory and poor parks and Effectively coordinated greenery maintenance amongst greening agencies in NCT Delhi.
- DPGS is taking up greening projects in poorly maintained parks, semi vacant spaces and also in open spaces.
- The Society is motivating RWA's/NGO's in the greening activities, by organizing meetings, distribution of plants to RWAs' for plantation in parks, technical advices and coordinating with other agencies. During the period under reference 1.52 Lakhs plants raised & maintained in DPGS Nursery, were distributed to RWAs'/NGOs', greening agencies, corporation etc. and got the same planted.
- DPGS is providing advice to other agencies in the greening activities. Thereby motivating greening by various agencies in Delhi.
- DPGS have already established a Nursery and is providing plants to RWAs'/NGOs' and other agencies under guidance and direction of DPGS.

- DPGS successfully mapped the latitude and longitude of 969 Water Bodies on Google earth website and shortly this will also be placed on DPGS website. However district wise details of the water bodies are available in the website.
- During this year total 1,52,054 plants were got planted in RWA/ Institutions the Green Cover of Delhi.

### **Targets 2017-18**

- The financial assistance will be extended to 400 RWAs for maintaining around 1500 parks spread over in around 500 acre area

### **11. Pollution Control and Environment Management**

Budget Allocation 2017-18 : ₹ 10 Lakh

#### **Aims and Objectives of the Scheme:**

- To promote monitoring and control of the level of air, water and noise pollution.
- To promote emission less and environment friendly technologies.
- To rejuvenate the River Yamuna and local water bodies.
- To organize mass awareness campaigns.

#### **Major Components of the scheme:**

- Setting up of ambient air, noise and water quality monitoring stations and mobile vans.
- Setting up of stringent emission norms for controlling levels of critical pollutants in environment.
- Policy prescription for Reduced Vehicular Dependency through Restraint Measures
- Promotion of City-wide Safe Cycling Network development
- Promotion of public transport /MRTS.
- Promoting adoption of emission less and environment friendly technologies through provision of fiscal incentives.
- Levying of fee on sale of diesel in the city and creation of Air Ambience Fund to promote clean technologies.
- Groundwater Regulation and Management in all districts of Delhi
- Formulation of policies towards prevention and control of air, water and noise pollution under existing Acts and Rules.
- Organization of workshop / conference / exhibition for spreading awareness on pollution control and environmental management among masses

- Introducing the concept of zero wastewater discharge and promote decentralized wastewater treatment system.
- Policy to discourage purchase and use of high end Diesel SUVs in Delhi.
- Policy prescription for
  - a) Mechanical cleaning / washing\* (\*washing may invite Controversy) of roads with treated water to reduce re-suspension of dust.
  - b) Mandatory covering of construction material / sites to control fugitive dust emissions from construction sites.
  - c) Removal of un-authorized encroachments to provide equitable road space for all users.
  - d) Mandatory green strip with Tree Plantation on both sides of motorable roads including planted central verge

### **Achievements**

- Clean Air Agenda has been prepared to improve Ambient Air Quality of Delhi
- Battery Operated Rickshaw to promote less polluting Vehicles.
- Water conservation recycles & reuses the proposal for installation of Rain Water Harvesting System.
- Conducted the workshop on Air/ Noise Pollution Control issues with respect to fire crackers awareness.

### **Physical Targets**

- To promote monitoring and control of the level of air, water and noise pollution
- To promote emission less and environment friendly technologies
- To rejuvenate the River Yamuna and local water bodies
- To organize mass awareness campaigns
- Feasibility study for adoption of innovative pollution control measures.

### **12. GIA to Mahatma Gandhi Institute of Combating Climate Change (MGICCC)**

Budget Allocation 2017-18 : ₹ 555 Lakh

#### **Objective:**

To impart training and create awareness to people for combating climate change, sources of renewable energy and community development.

**Achievement 2016-17:**

- i) 24 number of Community Participation Programme for school children, villagers organized.
- ii) 44 training Programme for Teachers/ Professors & college/ university & ITIs Students and RWA's.
- iii) 2 number of two days awareness program/workshop on climate change organized.
- iv) 2667 number of people trained in these training programmes on various issues related to combating climate change

**Targets 2017-18:**

- i) 26 number of Community Participation Programme for school children, villagers will be organized.
- ii) 44 training Programme to be organized for Teachers/ Professors & college/ university & ITIs Students and RWA's.
- iii) 2 number of awareness program/workshop on climate change to be organized.
- iv) 3000 number of people to be trained in these training programmes on various issues related to combating climate change.

During 2016-17, ₹ 375 lakh had released to MGICCC in three installments and also permission was granted to use the unspent amount of GIA of ₹ 75.98 lakh of 2015-16 during the year 2016-17.

## **DEPARTMENT OF FORESTS & WILDLIFE**

In March 1987, a separate Department of Forests & Wildlife and Environment was created from the Control of Development Department. The Department of Forests & Wildlife, Govt. of NCT of Delhi has been mandated with the responsibility of Protection, Development and Preservation of Forests in Delhi. It is also responsible for Protection and Conservation of Wildlife Habitats, Enforcement of the Indian Forest Act 1927, the Wildlife (Protection) Act 1972, and Forests (Conservation) Act 1980, Preservation of Trees Act 1994 and Rules made there under and a listing of people's participation in making Delhi Green.

There are three Divisions in Forests Department namely North Forest Division, South Forest Division and West Forest Division. The Forests Department has a mission to make all endeavors to increase the forest and tree cover in NCT of Delhi as envisaged in the National Forests Policy, 1988 through government, non-government and other land owning agencies in Delhi and protection of forests, wildlife including their habitats and preservation of trees.

The National Forest Policy, 1988 provides that a minimum of 1/3rd of the total land area of the country should be under forest or tree cover. Taking the above in view, the Govt. of NCT of Delhi is making all endeavors to meet the national goal as set by the Central Govt. and is constantly adding to the green cover of the State which is reflected in the change in forest and tree cover given as follows:

### **FOREST AND TREE COVER AREA OF DELHI 1993-2015**

(Sq. Km)

<b>S. No.</b>	<b>Year</b>	<b>Forest and Tree Cover</b>	<b>Absolute Increase In Area</b>	<b>% of Total Area</b>
1.	1993	22	--	1.48
2.	1995	26	4	1.75
3.	1997	26	--	1.75
4.	1999	88	62	5.93
5.	2001	151	63	10.2
6.	2003	268	117	18.07
7.	2005	283	15	19.09
8.	2009	299.58	16.58	20.20
9.	2011	296.20	-3.38	19.97
10.	2013	297.81	1.61	20.08
11.	2015	299.77	1.96	20.22

**Source: Forest Survey of India, Ministry of Environment and Forests, GOI**

Government of NCT of Delhi has taken initiatives to increase forests and tree cover area to keep the environment green in Delhi. As a result of the initiatives taken by Government of NCT of Delhi, forest and tree cover area has been increasing steadily since 1993. The forest and tree cover area increased to 299.77 sq km in 2015 increasing thereby the share of forests in the total area to 20.22 per cent. The growth of forests and tree cover has particularly been monumental post 1999. Of the

total 299.77 sq km of forest & tree area in NCT of Delhi, nearly 274 sq km has been added during the period 1999 to 2015.

There are following schemes implemented by the Department of Forest & Wildlife

**1. Development of Forest including Consolidations**

Budget Allocation 2017-18	:	₹ 1800 Lakh
Revenue	:	₹ 400 Lakh
Capital	:	₹ 1400 Lakh

**Aims and Objectives of the Scheme:**

- As per the National Forests Policy 1988, 33% of the geographical area should be under Forests cover. The stipulated extent of forest cover is required to maintain the environmental equilibrium in the country. Besides, forest cover has been a proven sink for various kinds of pollutants. The NCT of Delhi has only 20.22% of its geographical area under forest and tree cover which has to be further augmented to achieve more area under greenery in Delhi.
- The forest land in Delhi has been notified in year 1994 under section 4 of the Indian Forest Act, 1927. The final notification is to be issued under section 20 of the Indian Forests Act, 1927 and other areas handed over to the Forests Department needs to be protected.
- Afforestation, enrichment and maintenance of existing forest areas under the management of forest department

**Activities to be undertaken under the scheme:**

- Celebration of forest festivals like World Forestry day, Environment Day, Ceremonial Plantation etc.
- Enhancement of stock of sapling in 14 forests nurseries
- Tree plantation drive during Van Mahotsav from July to September with people's participation and public representatives
- Construction of boundary wall

**Achievement 2016-17:**

- 20 number of awareness events organized.
- 2 lakh Pamphlets distributed on endangered flora, fauna, animal census, butterfly description, standard operation procedure on forestry issues
- 14 number of plantation drives
- Tree census is being done by all greening agencies for assessment of tree plantation status outside the forest area.

- Online tree cutting permission under DPTA, 1994 software has been developed by NIC. It is proposed for commissioning to ease out business facility in Delhi.

### **Targets 2017-18:**

- Development of Forests through plantation and saplings will be distributed free of cost to encourage plantation on vacant lands.
- Maintenance and development of existing Nurseries, Existing City Forests, development of new city forests.
- 6.00 lakh number of Saplings in nurseries will be raised for plantation
- Consolidation of forest land & mapping, development of water bodies in forest areas, construction of Boundary Wall & providing fencing of forest area, construction of Watch Tower for protection
- 35 number of awareness events to be organized.
- As per direction of Hon'ble High Court in WPC -1346 and NGT in OA-58/2013 for consolidation of the ridge forest land through survey and demarcation of Southern Ridge Area and construction of boundary wall around forest area.

## **2. Development of Wildlife Sanctuary & Strengthening of Wildlife Section**

Budget Allocation 2017-18 : ₹ 1800 Lakh

Revenue : ₹ 250 Lakh

Capital : ₹ 1550 Lakh

### **Aims and Objectives of the Scheme:**

- Development of infrastructure for further protection and development of wildlife including their habitat in Delhi as also conservation of biodiversity in accordance with Wildlife Protection Act 1972. An Area of 1751 Ha in Asola-Bhatti has been notified under Wildlife Protection Act 1972.
- Intervention in management for improvement of soil/ water regime, biodiversity through afforestation of species native to ridge etc. in Asola Bhatti Wildlife Sanctuary besides creation of awareness among masses.
- Revision of Management Outlay of Asola Bhatti Wildlife Sanctuary in consultation with Wildlife Institute of India, Dehradun along with study on release of monkeys to the sanctuary and impact there on flora and fauna of the sanctuary.
- Enforcement of provisions of the Wildlife (Protection) Act, 1972 in NCT of Delhi.

### **Activities to be undertaken under the scheme:**

- Environment awareness creation through Conservation Education Centre (CEC) in collaboration with BNHS to increase footfall in sanctuary.
- Creation and maintenance of butterfly park in sanctuary and city forests
- Plantation of 2 Lakh saplings by 132 Eco Task Force (ETF)

- Wildlife rescue centre at Rajokri for rescue of injured birds
- Development of ecotourism in consultation with Wildlife Institute of India (WII), Dehradun
- Improvement of wildlife enclosures and bridges in Asola Bhatti Sanctuary

#### **Achievement 2016-17:**

- Containment of Encroachment: Masonry wall around Sanjay colony in Asola Bhatti WLS is being constructed by ETF to contain expansion of Encroachment.
- Protection, Conservation and Plantation of 1.5 lakh saplings by ETF
- 20 number of educational institutions covered for awareness through Conservation Education Centre (CEC)

#### **Targets 2017-18:**

- Development of **Eco-Tourism** facilities/opening of nature's trail in Asola Bhatti Sanctuary for visitors and wildlife enthusiasts.
- **Eco huts** will be constructed for study of Wildlife behavior during nights.
- **A Bird Rescue Center** is to be developed by the department at Rajokri with interpretation center, to provide wildlife and its habitat awareness schedule to young children.
- Eco restoration of habitat through Eco-Task Force in the Sanctuary areas by plantation and maintenance of old plantation, fencing, repair and construction/reconstruction of boundary wall, strengthening and augmentation of interpretation center at Asola Wildlife Sanctuary, training of officials, salary and project cost of 132 Eco Task Force and Conservation Education Centre of BNHS at Tughlakabad duly approved by cabinet.
- 75 number of educational institutions to be covered for awareness through Conservation Education Centre (CEC)
- 3 number of butterfly parks to be operated
- 3 number of sites will be developed for eco tourism
- Protection, Conservation and Plantation of 2.0 lakh saplings by ETF

### **3. Creation & Maintenance of Urban Forestry**

Budget Allocation 2017-18 : ₹ 200 Lakh

#### **Aims and Objectives of the Scheme:**

The scheme aims at taking all measures necessary for maintenance of existing greens and their improvement through soliciting private /govt. participation for making city livable place.

#### **Activities to be undertaken under the scheme:**

- Under this scheme, free distribution of saplings, raising of urban plantation road side/ roundabout & maintenance, organization of melas, celebration of Van Mahotsav, Environment Day, World Ozone Day, Earth Day, World



Forestry Day, Bhagidari, Health Melas, free distribution of seedlings at various location and other ceremonial functions, Development of Nature Trail & Maintenance, creation of visitor's amenities, Management of Van Vigyan Kendra at Hauz Rani.

- Development of jogging tracks , electrification, security, cleanliness, sanitary and portable water facilities
- Medicinal plant pockets, eco-huts, water bodies, interpretation centres, butterfly pockets and plantation of nectar plants, landscaping, strengthening of boundaries etc. in 10 city forests

#### **Targets 2017-18:**

- **Creation and maintenance of Urban Forest:** Development of City Forests with modern amenities to encourage eco tourism and awareness creation for environment/ modern nursery establishment etc. All these forests will have solar energy lighting system on jogging/pedestrian tracks. These city forests will be developed on zero based concept through green composting bio-digesters for public toilets etc.
- 5 number of urban forests where jogging tracks and portable water facility will be developed
- 14 number of eco-huts to be constructed.

#### **4. Monitoring of Greening Activities in Delhi**

Budget Allocation 2017-18 : ₹ 150 Lakh

#### **Aims and Objectives of the Scheme:**

- The scheme aims at increasing the forest and tree cover including protection of existing forest and taking measures for improvement of the soil/moisture regime, quality as green lung for the metro.
- Enforcement of IFA, 1927 and DPTA, 1994 and Wildlife Protection Act, 1972.
- The scheme also aims at monitoring / evaluation of the gains made in greening and other activities through independent agency.

#### **Activities to be undertaken under the scheme:**

- Replacement of Keekar (Vilayati babool) by indigenous saplings in collaboration FRI Dehradun
- Evaluation of compensatory plantation done by user agency in DPTA, 1994
- Third party evaluation of plantation activities of the department in the last 3 years

#### **Targets 2017-18:**

- Development of Mobile Squad for controlling the tree offences.

- Draft plan / scheme will be prepared by FRI, Dehradun for Replacement of Keekar (Vilayati babool) by indigenous saplings. During 2017-18, 15 hectare area to be made Keekar free.
- 40 number of plantation sites to be evaluated
- TSM Survey: Survey of Forest Land by using TSM (Total Station Method) Technology

5. **Intensification of Forest Management (CSS)**

Budget Allocation 2017-18 : ₹ 50 Lakh

Forest Protection Division; Ministry of Environment, Forest and Climate Change; GOI gave its administrative approval of the work programme during FY 2016-17 of GNCTD for strengthening forest protection measures under CSS 'Intensification of Forest Management' at the total cost of ₹ 62.50 lakh (Including 10% flexi funds be the Central Share). Ministry also sanctioned an amount of ₹ 50.00 lakh (80% of Central Share) and net release of ₹ 50.00 lakh as 1<sup>st</sup> installment of Central share of 2016-17. There is unspent balance of ₹ 50.00 lakh as on 01.04.2017. NIL expenditure has been incurred during 2016-17.

## **DEPARTMENT OF INFORMATION TECHNOLOGY**

### **1. Delhi Metro e-Network (LAN/WAN)**

Budget Allocation 2017-18 : ₹ 10 Lakh

All the major departments have been connected through Leased Line and Tri-B DG plan of MTNL.

- **Local Area network (LAN)**-Around **1000 computer** systems have been brought on the LAN in the Delhi Secretariat. On the existing LAN, Departments located at Secretariat use various centralized applications like file monitoring system, letter monitoring system, Bio-metric based attendance system, Pay package, e-Office etc.
- A server room has also been functional with leased line connecting the Secretariat server to the NIC Headquarter to access the internet. Wi-Fi facility to the departmental users and guests visiting Ministers/ officers has been provided.
- **Delhi State Wide Area Network (DSWAN)**:-. 101 locations are connected to Delhi Secretariat through 158 links of 100/34/10/4/2 Mbps links up to 2016-17. Many other departments are connected through Tri-B DG plan.

### **Targets for 2017-18:**

On request of departments seamless DSWAN connectivity will be provided to all Departments connected in DSWAN.

### **Achievements during 2016-17:**

Most of the departments have been connected through Leased Line and Tri-B DG plan of MTNL.

Wi-Fi implemented in Delhi Secretariat for the use of Ministers/Officers/Officials and for visitors coming to Delhi Secretariat for various purposes.

### **2. Training of Employees of Delhi Government in use of I.T. Hardware and Software**

Budget Allocation 2016-17 : ₹15 Lakh

The Information Technology Department initiated training programme for the employees from dated 22/4/2003.

The promotion of Information and communication technology requires continuous training for enhancing skills of employees in the emerging technology areas. It includes providing basic computer training for non-technical employees and specialized trainings to IT Cadre officials of Govt. of Delhi. It is therefore necessary that the Government employees including employees of Government of Delhi,

Corporations and Autonomous Bodies be trained regularly on usage of tools for day-to-day operation.

Department proposes the following:-

1. Training in Basic e-Governance, Office productivity tools and computer fundamentals .
2. Sponsoring of IT Cadre officers to specialized institutions providing training in Data Base Management System, Network Security, Application Software Development Tools etc.

### **Physical Targets for 2017-18:**

To train 300 employees for enhancing their skills.

### **Achievements during 2016-17:**

During 2016-17, in sixteen batches, total 289 employees were trained.

### **3. Promotion of I.T Application**

Budget Allocation 2017-18 : ₹ 4 Lakh

#### **Workshops, Exhibition and introduction to new Technology :-**

Department proposed to create public awareness on various e-governance related activities through organizing workshops, exhibition of the projects which are beneficial to citizens. The department also intend to participate in seminars, conferences, exhibitions organized by various institutions across the country for keeping pace with the latest trends, practices and global/national episodes.

### **4. e- Governance Projects and Process Re-engineering Support**

Budget Allocation 2017-18 : ₹ 100 Lakh

**e-SLA:** The e-SLA was implemented w. e .f. 15th Sept'2011. The objective of e-SLA is to provide the various Govt. Services to Citizens of Delhi in a time bound manner. Department has notified 361 services under e-SLA belonging to 37 Departments. Under e-SLA citizen can track the status of their application. Department of Information Technology is in process of amendment of "Delhi-Right of Citizen to Time Bound Delivery of Services-2011. In order to bring more transparency and to fix the responsibility on the officers for delay in providing the services, an amendment bill namely "The Delhi (Right of Citizen to Time Bound Delivery of Services), 2017 has been introduced in the Delhi Vidhan Sabha.

### **Physical Targets for 2017-18:**

To develop a software as per "The Delhi (Right of Citizen to Time Bound Delivery of Services), Amendment Bill 2017 through NIC once the amendments are notified.

### **Achievements during 2016-17:**

Total 16.71 lakh application received during the year, and 15.73 lakh application were processed.

**E-Procurement:** The scheme was implemented on February, 2008 and DGS&D was the implementing agency. From May 2011 the project is being handled by DIT, GNCTD through Delhi e Governance Society and NIC. The project was started to improve the then existing tendering process in various department of GNCT of Delhi and to bring transparency and efficiency in the tendering process. The main objectives are to reduce tendering process costs and overhead, better management of tendering process, increase transparency of decision making, reduce potential for disputes and increase vendor participation.

### **Physical Targets for 2017-18:**

More number of tenders will be processed on e-tendering platform of GNCTD. Participation of vendors will be promoted under this scheme.

### **Achievements during 2016-17:**

Around '28472 tenders valuing ₹ 1412845.61 Lakh finalized and- 3959 vendors registered till March'2017.

**e-Office:** Council of Ministers, GNCTD has approved the implementation of e-office in all the Department / Local/ Autonomous bodies of GNCTD. In order to bring transparency, accountability, to increase efficiency and save time and reduce the use of paper/ stationery. e-Office has been launched in various departments of GNCTD

**Physical Targets for 2017-18:** To add more departments in e-office.

### **Achievements during 2016-17 :**

Nearly **158 Departments /Organizations** of GNCTD has been implemented e-Office . More than 50,000 files and 4.5 lacs receipt have been digitized during the year 2016-17.

## **5. Development and Maintenance of Delhi Government Portal (Facility Management for Delhi Secretariat & Maintenance of Delhi Govt. Websites)**

Budget Allocation 2017-18 : ₹ 150 Lakh

### **(a) (i) Content Management Systems (CMS):**

Content Management System is information Integration on a single unified web site of all Departments. It gives information regarding various services provided by the centralized web site apart from having the uniform look and feel of all the websites. The scheme was started in August 2008.

(ii) **State Data Centre: -**

Delhi Government has designated NICSI Data Centre as State Data Centre. State Data Centre involves collocation charges, AMC charges of servers, SAN and takes TAPE back-up charges, hiring charges of virtual machines on GOI clouds i.e. Meghraj.

**Physical Targets for 2017-18:**

New departmental websites are being added to existing system on request from the user departments. Bilingual website with disabled friendly features will be prepared.

**Achievements during 2016-17:**

Up to March'2017 **about 180 libraries/ department** sites are designed and hosted using CMS. DR site at Pune installed and configured. NIC cloud services hired for setting up of DC site.

**(b) Security Audit:**

Web/ mobile applications, portals are always subject to security risks and attacks. Department proposes to get security audited their Web Portal and applications from Competent agencies and subsequently take necessary steps to secure the portal from hacking, defacing and other security threats. To address the cyber security concern, DeGS under Department of IT, has empanelled an agency to conduct security audit. The security agency has prepared State Cyber Security plan to reduce/ prevent cyber security threats. The same is under the process of approval.

**Physical Targets for 2017-18:**

To conduct security audit on the request of the user department.

**Achievements during 2016-17:**

Security audit of delhi.gov.in along with all the departmental libraries based on CMS portal have already been conducted.

**7. Readiness for implementing various Government of India's ICT related bill /Framework Standard /TETRA**

Budget Allocation 2017-18 : ₹ 400 Lakh

**Tetra Communication System:**

Government of NCT of Delhi has adopted TETRA Network during the **CWG-2010**. Delhi police, Divisional Commissioner Office, DTC, Health and Family Welfare, CATS, MCD, Directorate of Home Guards and Civil Defense, Trade & Taxes and Election office are using Tetra for the legacy period w.e.f. 1st March, 2012. Department will keep using existing TETRA network. During the year 2016-

17, various departments in GNCTD Delhi including Delhi police used total 4796 Tetra sets.

The proposed outlay will be utilized for hiring of consultants, license fee, rent of Tetra sets and expenditure on authentication framework.

**Targets for 2017-18:**

To adopt TETRA Network on request of users department

**Achievements during 2016-17:**

So far '9' Departments have been using' 4796 TETRA sets'

**8. IT Component for Samajik Suvidha Sangam**

Budget Allocation 2017-18 : ₹ 1 Lakh

Mission Convergence (Samajik Suvidha Sangam), Government of NCT of Delhi (GNCTD) has been implementing the system integration project for developing robust web based application and centralized database encompassing demographic details of households living in the slums.

Presently this scheme has been transferred to Revenue Department. A provision of only ₹ 1 lakh has been kept under the head as token amount for payment of the pending bills for the amount spent under the scheme.

**9. Preparation of Geo Spatial Data Base for Delhi**

Budget Allocation 2017-18 : ₹ 120 Lakh

The Project was aimed at creating geospatial data of Delhi, enabling better planning/implementation of public amenities (Roads, sewage, water supply, land records) and for checking the encroachments. The Project was started during the year 2004-05. This Project has been transferred to a Govt. owned company Geo Spatial Delhi Ltd w.e.f. 1-07-2012. All the line departments have to update their data.

The Project has been benefitting the departments in preparation of their planning and to provide updated information to public in respect of civil, electrical work done in their locality. According to the provisions of Delhi Geo Spatial Infrastructure (Management, Control, Administration, Security, and safety) Rules 2011, Geo spatial Delhi Limited has to provide services to line department under Delhi Spatial Data Infrastructure (DSSDI) Project. GSDL has to perform following tasks on behalf of Government of Delhi.

- To Provide navigation and other information through internet protocol camera, Portal or any other photographic or other medium for the facilitation of various organizations including Police, Fire Brigade,

Municipal authority, Civil Administration Disaster Management Authority etc, in the event of any natural or manmade disaster in Delhi.

- To establish, manage and maintain helpline services for the public to seek and or provide information pertaining to any development activity including excavation work in any area or locality within the territory of the Delhi along with similar information on the web-portal with facility to update the information in consonance with the periodical
- To do development work from time to time.
- To provide any other services based upon the applications of the Geo Spatial Data as deemed necessary by the Government.

**Target 2017-18 :**

DIT proposes to procure two maps (satellite images) for GSDL

**Achievements 2016-17:**

The Plan Dig and Monitor (PDM) has been implemented by PWD and MCDs to provide ONLINE permission for road cutting. GIS Map prepared by GSDL are being used for PDM project.

10. **Wi-Fi Delhi**

Budget Allocation 2017-18 : ₹ 2500 Lakh

Department of IT has been selected as the nodal department for this ambitious project of Govt. of NCT of Delhi in 2015 . Initially, there was a proposal to create around 1,000 Wi-Fi hot spots in Delhi as a pilot project. Free Wi-Fi would be available subject to certain limits at major public places, markets, colleges, Government Offices, hospitals and public transport (buses) etc.

**Target 2017-18:**

To establish '10' hot spots for free Wi-Fi in public areas of Delhi. October 2017 is the target date for issue of RFP. Discussion with IIT Delhi and MTNL is going on.

**Achievements16-17:**

Department initiated the process for issuing RFP for feasibility study.