



ENVIS CENTRE, CHANDIGARH

NewsLetter

P a r y a v a r a n P a t r a

Chandigarh
State of Environment

CHANDIGARH STATISTICS



TOTAL FOREST AREA

Name of the Forest	Area in Hectares
Sukhna Wildlife Sanctuary	2610.99
Lake Forests	105.57
Sukhna Choe Forests	387.12
Patiali-ki-Rao Forests	136.19
Forest Area at Brick Kiln Manimajra	5.53
Total	3245.3



http://www.chandigarh.nic.in/dept_forest.htm

FOREST

A **forest** is an area with high density of trees. A forest is a community of not just plants and animals, but of micro-organisms as well. It is an ecosystem of a relationship between biotic and abiotic (like soil, climate and water) components. It functions as habitat for a variety of organisms. Thus, constituting one of the most important aspects of the Earth's biosphere.

<http://www.panda.org>



The National Tree

The Great Banyan Tree of the Indian Botanic Garden looks like a miniature forest and is over 250 years old with 2800 prop roots covering an area of 1.5 hectares. Prop roots form on aerial stems and grow down into the soil to brace the plant. The inflorescence is referred as Syconium, an urn-like structure which wears fig's tiny flowers. It has unique pollination system, involving tiny, highly specific wasps, known as fig wasps that enter these closed inflorescences to pollinate and lay their own eggs, has been a constant source of inspiration and wonder to biologists.

Banyan Tree lives up to hundreds years of age.

Indian fig tree, *Ficus bengalensis*, whose branches root themselves like new trees over a large area. The roots then give rise to more trunks and branches. Because of this characteristic and its longevity, this tree is considered immortal and is an integral part of the myths and legends of India.

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Paryavaran Patra

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ENVIS CENTRE
Deptt. of Environment
Chandigarh

[VOLUME 3.0.0]

JAN 2008 - MAR 2008

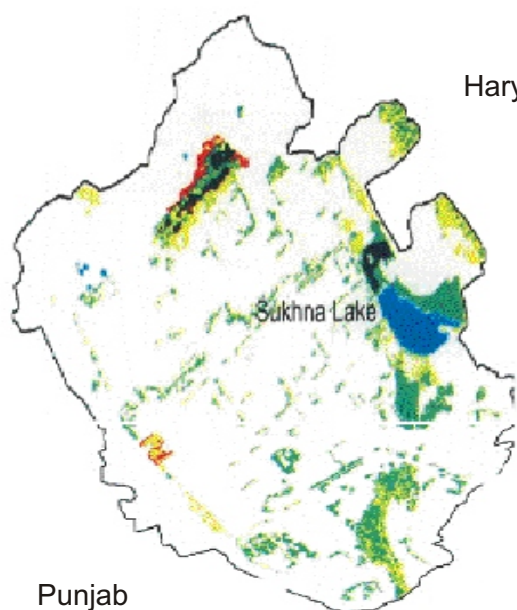
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FOREST COVER

The Forest cover in India is 678,333 sq. kms and constitutes 20.63% of its geographical area. Among this dense forest constitutes 390,564 sq. kms (11.88%) and open forest 287,769 sq. kms (8.75%). The geographical area of U.T.Chandigarh is 114 sq. kms and another 25.42 sq. kms of hilly area which has been declared as 'Sukhna Wildlife Sanctuary' was acquired for soil conservation works. The total green cover of Chandigarh as per S.F.R. 2001 was 36 sq. kms and as per S.F.R.2003 it was 41.42 sq. kms which forms 29.6% of its total landmass. Another 8 sq. kms area is under tree cover. Thus, the total green cover (forest cover + tree cover) of Chandigarh as per F.S.I. report 'SFR-2003' is 49.42 sq. kms which form 35.3% of its total geographical area. Thus, there was net increase of 13.42 sq. kms in the green cover of Chandigarh. According to the latest report of S.F.R. 2005 the total green cover is 50 sq. kms which forms 35.7 percentage of its geographical area.

GREEN COVER OF CHANDIGARH



Forest Area Encroachment	*Less than 1 Hactare
Per Capita Forest Cover	0.0033 Hactare
Actual Forest area	32.64 sq.kms
Mangroves	- sq.kms
Scrubs	1 sq.kms
Non Forest area	107.36 sq.kms
Area under Shifting Cultivation	- sq.kms
Forest Cover	41 sq.kms
Tree Cover	9 sq.kms
Green Cover	50 sq.kms
Total Green Area	35.7 Percentage

Non-Forest	District boundary	Scrub	Mod Dense Forest
Water bodies	State boundary	Open Forest	Very Dense Forest

* Less than one hectare area of Sukhna Sanctuary may be under encroachment due to non demarcation of interstate boundary between U.T. and Haryana.

The forest area under reserved category is 30.780 sq. kms and under unclassified category is 1.6732 sq. kms which makes the total forest area up to 32.453 sq. kms in Chandigarh. Administration has taken various steps to conserve the biodiversity in forest area such as eradication of exotics species like *Lantana* which adversely affects the growth of indigenous species. Forest department has set target to plant 9,00,000 saplings in year 2008.

Chief Wildlife Warden, U.T.Chandigarh

Major forest type occurring in the Union Territory is Tropical Dry Deciduous. These forests occur in climates that are warm year around and receive several hundred centimeters of rain per year. The canopy of the trees does not normally exceed 25 metres. The common trees are *Acacia* and bamboo. There is no trace of chir (*Pinus roxburghii*) and sal (*Shorea robusta*) in the Chandigarh Shivalik Hills, however, some patches of these trees do exist in the Morni Shivalik Hills. The trees are less in number with xerophytes, thorny and spiny species, predominating throughout the range. Scattered trees of the other species grow in small groups except for the closed forests where the tress are in abundance.

<http://gbpihed.gov.in>

Do You Know: There are 33 types of evergreen trees in Chandigarh

FORESTS OF CHANDIGARH

Sukhna Wildlife Sanctuary spreading over an area of 2600 hectare is situated at 1 km in the North-East of Sukhna Lake. It forms the part of Sukhna lake catchment area falling in Shivalik hills. Shivalik hills are ecologically sensitive and geologically unstable. Thus, highly susceptible to erosion by surface run off.

Nepli & Kansal Forest Gates

There are two entry gates to the Sanctuary i.e. Kansal gate and Nepli gate. The route to Kansal gate is via 'Khuda Alisher' village or 'Kaimbwala' village of U.T. Chandigarh. The route to Nepli gate is via 'Suketri' village of Haryana. As per the carrying capacity of Sukhna Wildlife Sanctuary maximum 200 persons can visit the Sanctuary everyday.

http://chandigarh.nic.in/green_suk_wild7.htm



Sukhna Wildlife Sanctuary



Nepli Forest



Kansal Forest

FOREST CONSERVATION AND DEVELOPMENT SCHEME

The main objective of this scheme is to reduce the silt inflow to Sukhna lake. The works like construction of silt retention dams, masonry check dams, spurs/revetments, desiltation of dams, construction of grade stabilizers, planting of live-hedge and opening of choe bed etc. are being undertaken under this scheme.

Plantation Scheme

The main objective of this scheme is to provide a carpet of vegetation in open patches/hill tops to reduce soil erosion by planting/sowing of seeds.

http://www.chandigarh.nic.in/dept_forest.htm

SOIL AND MOISTURE CONSERVATION IN SUKHNA WILDLIFE SANCTUARY

Vegetative Methods

Massive afforestation including direct seed sowing in contour trenches was carried out on hill slopes on sustained basis to conserve soil. Special emphasis has been laid to plant and seed sowing of indigenous species of trees, shrubs and grasses. Soil conserving species like Arundo-donex was planted along choe banks to train the choe and to stabilize the choe banks.

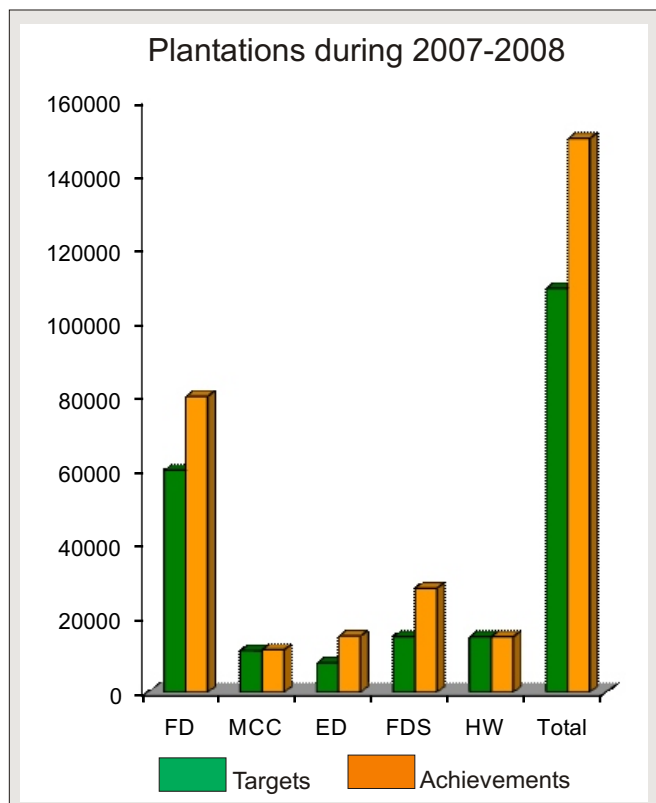
Engineering Methods

186 silt retention dams, more than 200 check dams, spurs, revetments and brushwood structures have been constructed to conserve the soil and to retain the silt in the water-bodies created behind silt retention dams. The aforementioned soil and moisture conservation measures have led to a remarkable improvement in the underground water regime.

http://chandigarh.nic.in/green_suk_wild2.htm

*Three seasonal nalla/choes namely Kansal choe, Nepli choe & Ghareri choe feed Sukhna Lake.

ADMINISTRATIVE INITIATIVE FOR PLANTATION IN CHANDIGARH



FD : Forest Department
MCC : Municipal Corporation of Chandigarh
ED : Engineering Department
FDS : Free Distribution of Sapling by FD
HW : Horticulture Wing

Forest Department distributes the saplings free of cost from its nurseries to the Educational institutions, NGO's, Resident Welfare Associations, Medical institutions etc.

M.C. with the help of other departments maintains parks, green belts & roundabouts and also sells ornamental, flowering & fruit plants at nominal price.

Horticulture Division guides all Govt. Schools & institutions to plant right kind of saplings and also selling plants at subsidized rates.

AFFORESTATION ON FOREST LAND



Target	1.318 Sq.Km
Achieved	1.375 Sq.Km
By Seed Sowing	4,00,000 Patches
Afforestation	1.375 Sq.Km

DCF (2005)

SAPLING DISTRIBUTION IN CHANDIGARH

Forest Department is having following 5 (Five) nurseries from where saplings free of cost may be collected by citizens, NGO's, Schools and other institutions:

1. Hallomajra Nursery on Ambala Chandigarh National Highway
2. Nursery at Forest Rest House opposite Railway Station
3. Kishangarh Nursery at Kishangarh village
4. Forest Nursery in Patiali-ki-Rao Forests (behind Panjab University)
5. Forest Nursery near Lake Club.



जहाँ है हरियाली
वहाँ है खुशहाली



NURSERY



SAPLINGS



GREEN HOUSE

ADVANTAGES OF FORESTS

Forests are native residents of the earth. They are present on earth even before evolution of human being. Plants make sure the healthy life on the planet earth.

Soil Improvement - Some species of trees have the ability to return nitrogen to the soil through root decomposition or fallen leaves.

Soil Erosion Check- Roots of trees bind the soil and prevent erosion caused by moving wind or water. Leaf fall also provides a soil cover that further protects the soil. Massive afforestation was done in Sukhna Wildlife Sanctuary to conserve soil.

Recreation- Forests have always been popular for outdoor activities. Camping, fishing, sight-seeing, boating are all recreational pursuits for which the forest can be exploited. In Chandigarh, Nepli and Kansal forests falling under Shivalik hills are a good source for recreation.

Watershed- A watershed, also known as a catchment basin, is the region of land that drains into a specified body of water, such as a river, lake, sea, or ocean. Trees maintain water channel stabilization by preventing soil erosion.

Buffering Strong Winds and Muffling Noises- Tree species are grown for wind breaks, can absorb noises too. In Chandigarh, avenue plantations have been done with species like Pilkhan, Moulisari, Mahogany Budhas Coconut, Haldu, Marorphali etc. as these species are hardy, more efficient in pollution abating, and suitable for roadside plantations. The species like *Putranjiva*, Moulisari and *Lagerstroemia* are having good and beautiful foliage and good capacity to absorb the air pollutants including dust.

Provide Oxygen-Through the process of photosynthesis, forests renew the oxygen supply in the atmosphere by absorbing atmospheric CO₂ and moderating the greenhouse effect.

Conservation of Bio-Diversity- Forests provide an environment for many species of plants and animals, thus protecting and sustaining the diversity of nature.

Stabilization of Climate- Forests maintain moderate high and low temperatures.

Fodder - Fodder from the forest forms an important source for grazing animals in the hilly, arid and drought regions.

Fuelwood - Wood is an important source of energy for cooking and heating in rural areas.

Forest Products and Their Use- Above all forests provide us valuable resources like timber, bamboo, cane, grasses, fruits, fibres, essential oils and medicinal plants.

Do you know that there are more than 1000 trees in Chandigarh that can be termed as Heritage Trees or part of Heritage sites. These are rare assets for any urban city. In many ancient cultures, trees were held sacred. It is evident in the seals of Mohenjo-Daro & Harappa, one of which depicts a horned goddess in a peepal tree. Trees sheltered female deities and contained their essence and divinity. The Atharva Veda equates plants with the mother goddess. The Ashoka dispels sorrow, the Neem bestows happiness, and the Mandar gladdens the sun. Women unable to conceive must pray to the peepal to be blessed with offspring. The Amla is also sacred, as is the Kikar, sometimes seen dense with clay pots tied to its branches to placate the Gods. In the Himalayas, the Deodar Tree of the gods, is worshiped.

FOREST PRODUCE IN CHANDIGARH

Year	Total Value of Fallen Trees(Rs.) (Including Industrial Wood)	Fodder And Grasses	Total
2003-2004	823400	21050	844450
2004-2005	1131000	26429	1157429
2005-2006	244500	7500	292000

Statistical Abstract 2006

ENVIRONMENT THROUGH OUR EYES

Trees are the 'Green Lungs' of Mother Earth. They are the nature's factories for the production of life giving oxygen. They are not just another form of 'life' on earth but the very 'life of all lives' on earth and they play a vital role in maintaining the delicate ecological balance in nature. For the continued survival of mankind, it is essential that we propagate, protect and preserve our forest resources.

General (Retd.) S.F. Rodrigues PVSM, VSM, Governor of Punjab and Administrator, U.T. Chandigarh

Forests are vital for sustaining the life support system of this planet. They are not only the store house of biodiversity but also play a significant role in the protection and improvement of the environment. We need to protect them at all costs so that the forests remain the Repositories of Biological Diversity and conservation of flora and fauna.

Pardip mehra, Advisor to the Administrator

Trees and forest are integral part of our life. Scientifically also they are of immense environmental benefit to the mankind. The Administration has tried to identify all potential areas within and around Chandigarh where we can have more plantation and further increase density of plantation. Keeping in view our good goal, we have got an ambitious plan to plant 1 million trees.

Sanjay Kumar, Finance Secretary

'Grow more trees' movement needs to be more practical than theory. The schools should give focused attention to inculcate the importance of forests in budding minds, then only our surroundings will look green and the problem of global warming will be mitigated. Forest Department of U.T. Chandigarh is providing saplings to schools, colleges and resident welfare associations and individuals, free of cost from its nurseries. It is my earnest appeal to take full advantage of this facility to make the city greener.

Ishwar Singh, D.C.F.-Cum-Director Environment, U.T. Chandigarh

Forests possess a vast wealth of perennial natural resources. Forests and natural surroundings are a pleasure to be enjoyed and relished. The beautiful forests with a variety of flora and fauna are a treat for body as well as mind. Trees give us a healing touch. So, it becomes imperative for all of us to save forests which will further help us in the conservation of nature. Otherwise the day is not far off when there will be no life on MOTHER EARTH. Remember, we have only one earth. So, we should do our best to maintain its pristine glory for the conservation of nature.

S.K. Setia, D.P.I.(S), Chandigarh Administrator, Chandigarh

One may have any perception about Forests. In fact, as each component of it is useful, its each letter has an unmatched significance. F: Provider of 5 Fs (Food, Fiber, Fuel, Fodder, Fertilizer). O: Oxygen producer. R: Remover of pollutants from air and water. E: Energy Provider. S: Soil erosion controller. T: Temperature moderator. S: Sustains biodiversity, thus life on the earth Planet. So, conservation of forests means sustenance of life. Choice is ours.

Dr. R.K. Kohli, Professor & Accredited Sr. Ecologist, P.U. Chandigarh

There are only a few friends of trees when it comes to plant and protect them. The destroyers, besides insects, pests and diseases, may include those who are indiscriminately using them as medicinal source, those who are indiscriminately cutting them for fuel, and those who consider a tree like an umbrella 'closing' (Cutting) in the winter and opening in the summer. It is therefore all the more important to plant and preserve as many trees as possible.

Dr. Satish Narula, Sr. Extension Specialist (Hort.), U.T. Chandigarh

World Forestry Day is celebrated to remind the importance of forests and the many benefits which we are gaining from them. The concept of having a World Forestry Day originated at the 23rd General Assembly of the European Confederation of Agriculture in 1971. March 21, the autumnal equinox in the Southern Hemisphere and the vernal equinox in the Northern Hemisphere was chosen as the day to be celebrated as World Forestry Day. 21st March of every year reminds us the importance of trees for nature and our lives.

PJS Dadhwal, Member Secretary, CPCC Chandigarh

Do You Know: There are about 1900 small and big parks in Chandigarh

Response Centre Feedback Form



YES ! I WANT TO KNOW
ABOUT ENVIS CHANDIGARH
Chandigarhenvvis

7



Dear Information Seeker,

ENVIS Centre, Chandigarh furnishes you with the services like collection and dissemination of information related to environment of Chandigarh. To share information with us you are requested to fill up the form given below.

Your feedback is valuable to us and will be highly appreciated



- Name _____
- Designation _____
- Department _____
- Address _____
_____ City _____
- State _____ Country _____ Pin _____
- Phone _____ Fax _____
- Email _____

Your views on scope of improvement :

- Interest Area _____

I would like to have information on following :



At The End of...

ENVIS CENTRE, CHANDIGARH
NewsLetter
P a r y a v a r a n P a t r a



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TREES: FIND AND PROTECT A TREASURE AROUND YOU

- ✿ No artificial lighting should exist near the trees.
- ✿ There should be Installation of lightening conductors to save from possible lightening attack.
- ✿ Construction of an Earthen platform, i.e. platform, around the trees so that the tree is dignified and people can sit underneath and enjoy the shade.
- ✿ There should be installation of a signboard in regional language highlighting the importance of the tree.
- ✿ Installation of wooden swings hanging from thick branches where children may swing and play under trees. This way they will respect their importance.

TREES=FRESH AIR=WATER=LIFE

PREVENT
SOIL EROSION



HELPS IN
RAIN



HABITAT FOR
WILDLIFE



FOREST PRODUCTION



NO TREES=NO OXYGEN=NO RAIN=NO LIFE

FLOODS



GLOBAL WARMING



DECREASING
WATER LEVEL



DROUGHTS



USEFUL ENVIRONMENTAL WEB LINKS

www.chandigarhtourism.gov.in
www.citcochandigarh.com
www.india.gov.in

www.envfor.nic.in
www.chandigarh.gov.in
www.chandigarhenvvis.nic.in

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To,

Book Post

Note : While every care has been taken in compilation of the information available for this newsletter. However, readers must make thorough confirmation/enquiries at their own level before acting upon any data/information provided to the readers. Any discrepancy brought in the notice of ENVIS CENTRE, Chandigarh will be highly appreciated.

