

CHAPTER-I

INTRODUCTION

CHANDIGARH AND ITS ENVIRONMENT

Chandigarh is a well planned city known all the world and for its architecture planning and landscape. The Master plan of the 'City beautiful' Chandigarh was prepared by Swiss-French architect Le Corbusier. It is U.T. of India serves as capital of Indian States, Haryana & Punjab. The city was named after the mother goddess of power, Chandi, whose temple Chandimandir is located in the vicinity of the site selected for the city. The Chandigarh city is situated in a picturesque setting under the foot of Shivalik Hills at a height of 365 meters above the mean sea level. This city boundaries are defined by two seasonal rivulets - the Patiali ki Rao and Sukhna choe, with the beautiful backdrop of the Shiwalik hills.

The greening is an integral part of Urban Planning in U.T., Chandigarh. Tree plantation along avenues, open spaces, green belts and around building complexes are the enthralling features of the city. A number of beautiful avenues with conspicuous tree species, well wooded forests along the periphery of city, 'Sukhna Lake' against the backdrop of Lake Reserve Forests, green belt s running across the length and breadth of the city and a beautiful 'Sukhna Wildlife Sanctuary' on its periphery, further enhance the ecological, environmental and aesthetic richness of the city.

"Let's go green as it makes environment clean."

GREEN CHANDIGARH TASK GROUP

The legacy of well planned landscape is being continued by Greening agencies i.e. Forest Department, Horticulture wings of Engineering Department & Municipal Corporation, Chandigarh & its caring Citizens. These agencies play a crucial role to become a city more beautiful by implementing new ideas & execute them time to time. To fulfill its commitment to maintain and improve the greenery of the city and to have a better co-ordination among these different stakeholders & to chalk out the planning of plantation works, its implementation & to look into all aspects of Silvicultural/Horticultural operations, Chandigarh Administration formed a Greening Chandigarh Task Group in the year 2001.

GREENING CHANDIGARH ACTION PLAN

The responsibility entrusted upon the Greening Chandigarh Task Group is a challenge. The population of the city is approx. 12 lakhs as per 2015 population census and the number of vehicles including the floating vehicles is more than 9.00 lakhs approx. The rapid increase in population and vehicles have led increase in pollution levels & thus posed a challenge before the Greening Agencies. To counter the problem of pollution & to make this city more green, the Greening Task Group first came out with a



Greening Chandigarh Action Plan in 2001. It was the guiding tool for all greening agencies to live up to the expectations. Since then this Action Plan is being published annually.

GREEN AND FOREST COVER OF U.T. CHANDIGARH

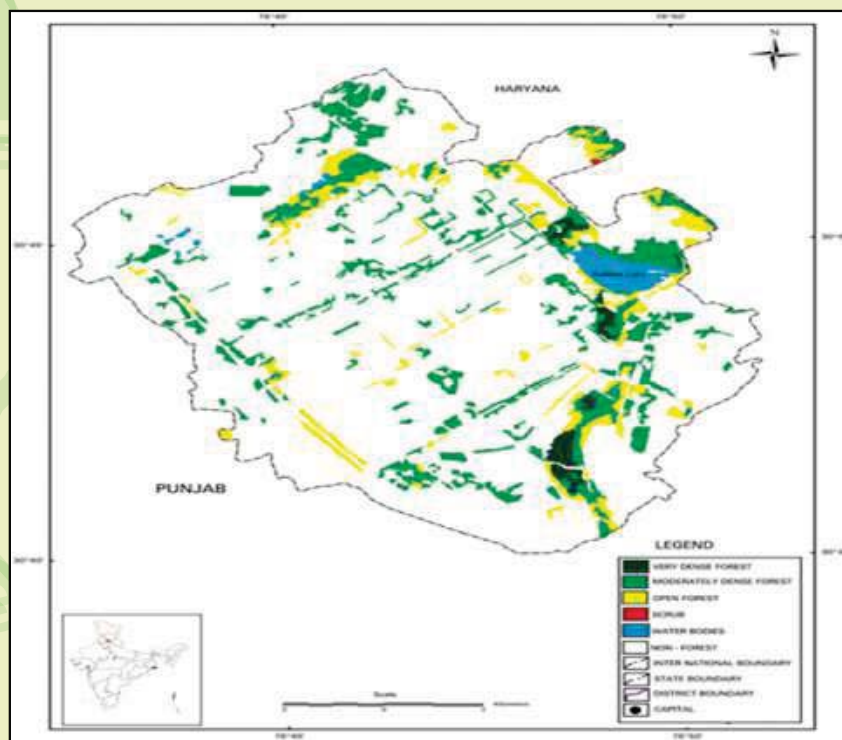
Geographical area of U.T. Chandigarh is 114 sq. Kms. and another 25.98 sq. km. of hilly area which has been declared as

'Sukhna Wildlife sanctuary' on 06th March, 1998 earlier acquired for soil conservation works.

UT Chandigarh has 48.01 sq.km area under Forest cover and another 9 sq.km. area is under tree cover .

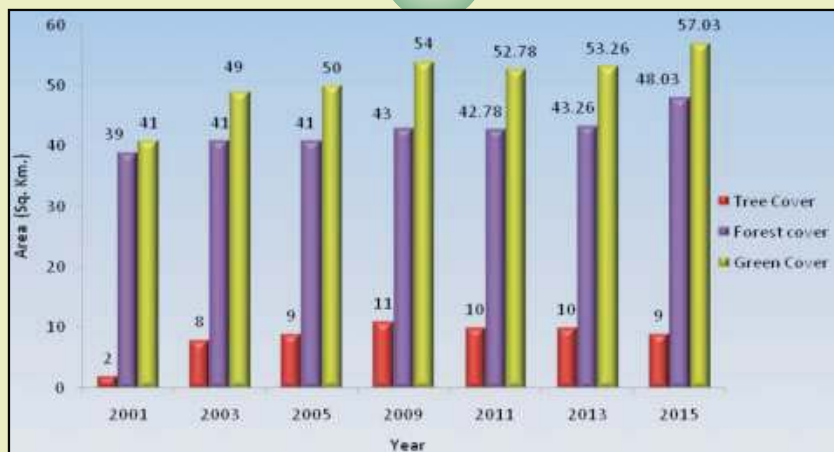
As per F.S.I. report I.S.F.R. 2015, total forest cover of UT, Chandigarh has increased 4 Sqkm due to plantation and protection activities of forest department.

Green cover map of Chandigarh:



(Source: FSI, ISFR-2015)

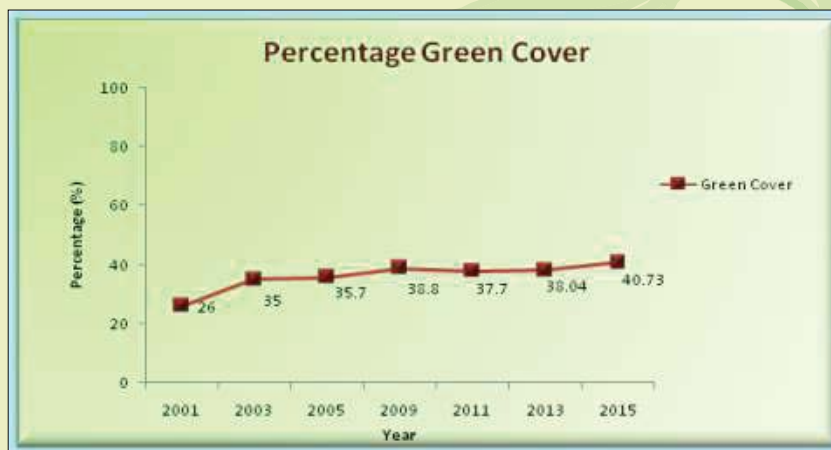
"Think Green & Live green"



Green cover of Chandigarh, India State of Forest Report by FSI, Dehradun

On the path of Achievement

- Chandigarh bestowed with Indira Priyadarshini Vriksha Mitra Award-2010.
- Forests of Chandigarh has been assigned the Rank 1 on Planning Commission's Environmental performance index.
- The forest cover in U.T. Chandigarh is 48.03 sq km and another 9 sq km area is under tree cover.
- The Green cover of UT Chandigarh has increased 4 Sq.Km. in last two years as per ISFR-2015.



(Source: FSI, ISFR-2015)

Showing the percentage of Green Forest Cover in UT Chandigarh

"Cut the greed, Not the green!"

The galloping increase in population and rapid increase in the number of vehicles have led to a rising trend in pollution levels in U.T. Chandigarh. The sharp increase in number of vehicles from 2,58,843 in 1991 to about 7.3 lakhs in 2009 is a matter of concern and is responsible for the rising trend in air pollution. As compared to neighbouring cities/towns of Punjab and Haryana, the quality of 'ambient air' today in Chandigarh is better. SO₂ and NO_x levels are well

within permissible limits. However SPM (Suspended particulate matter) levels at times cross the permissible limits.

As per monitoring data of Chandigarh Pollution Control Committee, SO₂ and NO_x levels in Chandigarh are very low, though; Respirable Suspended Particulate Matter (RSPM) levels are matter of concern. One of the main reasons for Check on air pollution is the increasing green cover of the city during the last decade.

AMBIENT AIR QUALITY DATA IN CHANDIGARH (ANNUAL AVERAGE)

Zone	Sector 17			Industrial area			Punjab Engineering college			Govt. College IMTECH			Kaimbwala village		
Parameter	RSPM	SO ₂	NOX	RSPM	SO ₂	NOX	RSPM	SO ₂	NOX	RSPM	SO ₂	NOX	RSPM	SO ₂	NOX
2016	91	2	21	131	2	25	92	2	19	105	2	19	101	2	19

(Source : Chandigarh Pollution Control Committee)

Note : Permissible limit of Ambient Air Quality

RSPM (Respirable Suspended Particulate Matter) : 60 Micro Gram/m³
 SO₂ (Sulphur Dioxide) : 50-80Micro Gram/m³
 NO_x (Oxides of Nitrogen) : 40-80 Micro Gram/m³

ROLE OF THE FORESTS IN AMELIORATION OF THE ENVIRONMENT

Trees play a key role in creating healthy urban environments. Rising pollution level and degrading environment of the city particularly by vehicular pollution highlights the need for remedial steps to combat pollution. Though the best way to

reduce pollution at source is by adoption of clean technology and clean fuel, proper maintenance of roads & vehicles, maximum use of bicycles, strict enforcement of Air (Prevention and Control of Pollution) Act, 1981, Water (Prevention and Control of

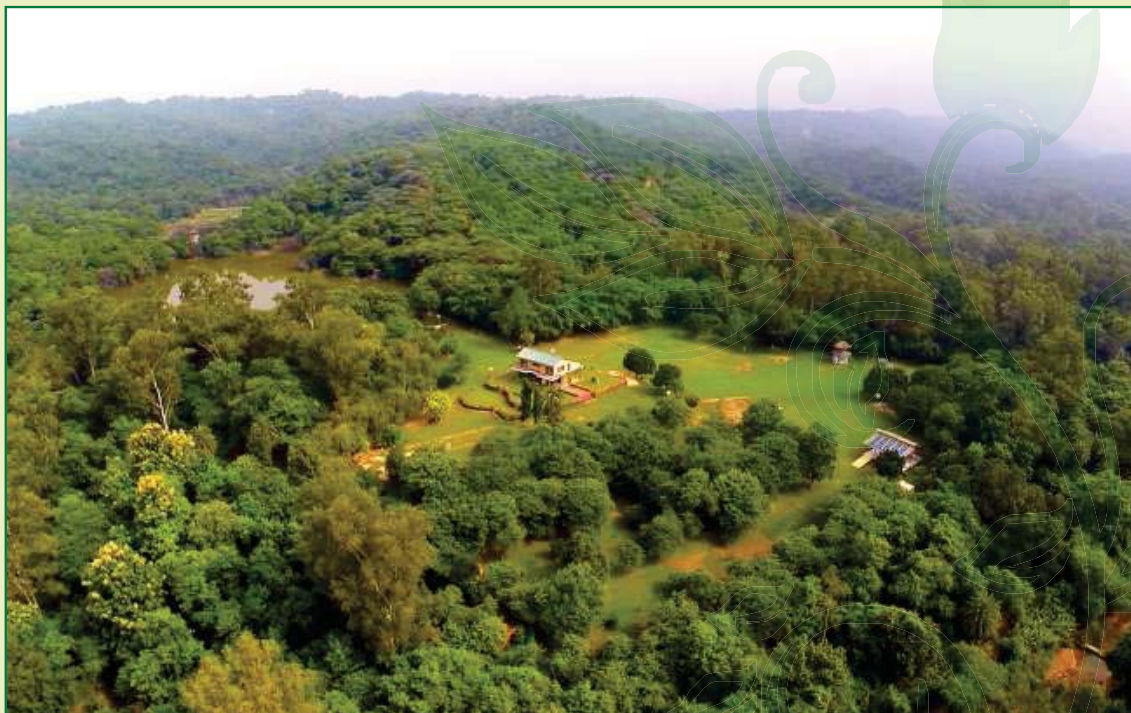
"The future of our planet depends on the action we take today"

Pollution) Act, 1974 and the Environment (Protection) Act, 1986 etc., yet another effective way to reduce air and noise pollution is through a well planned and realistic afforestation strategy. Trees bring benefits to communities, wildlife & environment. In cities, they can well-designed green belts prove to be very effective wind break and help in soothing the microclimate of the surroundings.

1. Improve air quality and counteract greenhouse effects by absorbing

pollutants and intercepting harmful particular.

2. Trees provide aesthetic beauty to the city.
3. Support environmental education.
4. Enrich habitats & biodiversity.
5. Reduce noise pollution.
6. Help in soil & moisture conservation.
7. Enhance health & well being.
8. Mitigate heat island effect.



“Be habitual to live in a green and clean environment”