



OFFICE OF THE MUNICIPAL COUNCILLORS

BHADRESWAR, HOOGHLY

Action plan for development of green space and parks and to progressively increase green cover in the UCB to 15% in 5 years by this Municipality

➤ INTRODUCTION

There is increasing research and evidence to show open and green spaces have a positive effect on community sociability, local economy and ecology. These spaces are particularly important in city urban environments, where people live, work and recreate.

Cities are the drivers of development, growth and investment. But rising consumption and production in cities is causing more than 70 percent of global greenhouse gas emissions, and cities are vulnerable to climate impacts, such as urban heat island, heat waves and drought. If cities continue to develop according to the prevailing 20th century model, it will not be possible to prevent severe climate change.

Green cover are critical component of Urban & Peri-urban environment which moderate microclimate, enable ground water recharge, provide shade and conserve local biodiversity, improve quality of life for city dwellers by providing recreational avenues. Much needed public space for better social cohesion, significant health benefits, aesthetics as well as mitigating climate change. Urban forests not only act as green lungs of the city but also provide highly valuable ecological and environmental services. Trees on the roadsides often serve as a shelter / resting place providing relief to the poor in harsh climate. Green spaces in urban areas also serve as insurance against natural disasters. Tree covers and urban greens significantly reduce the cost of management of urban areas as well as positively impacts health of its residents. Trees as such are an important component of the urban infrastructure as they provide significant amelioration against urban heat island effects and flooding due to storm water. The trees also serve as reservoir of urban biodiversity and loss of trees adversely impacts biodiversity.

Green spaces and infrastructure are important – trees, natural areas, exotic gardens and grass as they all play a part in -

- ✓ Filtering extreme weather conditions from heat, cold, rain and wind;
- ✓ Humidifying the air;
- ✓ Taking up carbon;
- ✓ Improving soil and air quality;
- ✓ Controlling erosion (wind and water);
- ✓ Protecting groundwater resources (nutrient management and salinity controls);
- ✓ Amenity and landscape relief;
- ✓ Sense of place, heritage and culture;
- ✓ Enhancing biodiversity;

- ✓ Social values;
- ✓ Increasing pedestrian and other transport comfort;
- ✓ Extending hard infrastructure asset life; and
- ✓ Health and wellbeing of people and their pets.

There is dearth of information about tree cover in urban areas, as this work has not been attempted in a systematic manner by ULB, Government Departments, academic organizations or NGOs.

The objectives of this action plan are:

- ❖ To create safe, eco-friendly and aesthetic public spaces in the city:
- ❖ To create facility of play area for children and senior citizen.
- ❖ To enhance the aesthetic of public spaces.
- ❖ To protect the public places against encroachment.
- ❖ To reduce the carbon emission.
- ❖ To promote green building concept.
- ❖ To promote clean air and clean water.
- ❖ To promote Green Transportation.
- ❖ Increase access to Nature, green cover and parks.

➤ **EXISTING SITUATION ASSESSMENT**

The total area of the Bhadreswar computed on GIS Platform is 828 Ha or 8.28 Sq. Km. The different utilities and detailed features of Bhadreswar Land use were mapped in GIS and were broadly categorized in line with the UDPFI guidelines. This town has a total population of 101477 with total Households 23233 (as per census 2011).

Table below shows Land use distribution of Bhadreswar.

Table 4: Land Use pattern in Bhadreswar

Land Categories	Area in Sq. Km	% of the Total area
Residential	3.60	43.5%
Commercial	0.04	0.53%
Agricultural	1.02	12.3%
Industrial	0.35	4.17%
Others	3.27	39.5%
Total Area	8.28	100%

Components falling under “Others” category comprise of following further categories which are presented in the table below:

Table 5: Other Land categories

Land Categories	Area in Sq. Km	% of the Total area
Open Space	2.14	25.84%
Public Space	0.07	0.85%
Transport Area	0.54	6.52%
Water body	0.52	6.28%

Land use pattern of Bhadreswar is broadly influenced by river Ganges, G.T Road and rail route and the proximity to Kolkata. As a result these main residential, commercial and public-semi-public areas are concentrated along the above. The agricultural and plantation areas are mostly concentrated towards the southern fringe areas.

On the basis of availability of green space, Bhadreswar municipal area have been classified in **Category 3** wherein green space is required to be increased by 0.1 to 5% of the existing green space. Hence this action plan is introduced as a clear road map to achieve increase of total green cover to 15% in next five years.

➤ **ACTION PLAN FOR DEVELOPMENT OF GREEN SPACE AND PARKS AND TO PROGRESSIVELY INCREASE GREEN COVER TO 15% IN 5 YEARS.**

Key strategies & Highest Priority Actions:

1. To develop at least one city level park or garden each year and develop multiple neighborhood level parks based on availability of land.
2. To develop green areas in old settlements such as old residential areas including planting in avenues, central verges, roundabouts, drain sides, around water bodies etc and to develop the same in surplus institutional lands like schools or colleges, residential colonies, and surplus commercial lands like business or industrial land.
3. At the time of according sanction to new housing or industrial / commercial projects, provision of minimum 15% tree cover should be ensured. In this respect provision for dedicated strip of sufficient width for supporting plantation of trees along roadside should be made mandatory at the time of sanctioning of such building plans at the ULB level.
4. Plantation of new trees on the city land and other public properties will be taken up in coming years and in this respect ULB will encourage participation of citizens, communities and private sector.
5. ULB will give high priority in protection of existing greens and since the action happen at a local level, a robust public engagement process, where local community groups, residents, schools, NGOs and other suitable institutions, may be encouraged.
6. River bank plantation to be raised along river Ganges and the canals passing through this ULB area, and in this process flow transforms those areas into recreational site.

7. Water bodies in and around this ULB area to be preserved and developed. Trees with correct species to be planted, preferably in consultation with Forest Department so as to meet the objectives of tree plantation optimizing benefits and attract urban people.
8. Reclamation sites to be covered by tree plantation blocks.
9. Existing patches of natural and man-made forest to be preserved and enriched so that to make them as recreational and educational centers.
10. ULB will take initiative to identify large blocks of land in the peripheral Panchayet areas to develop recreational forest or tree garden to provide recreational space to the people and also to improve the quality of urban life.
11. ULB will take initiative to encourage the residents or corporate to contribute in innovative designing including vertical / terrace gardening for encouraging green cover including quality, bio diversity, conservation and aesthetics of greens.
12. ULB will ensure support to greenery, creation of sufficient nurseries, to provide good quality planting stock.
13. In case trees are compelled to be uprooted for road widening or for any other public infrastructure project, appropriate provision of land for compensatory plantation will be made in the project design. Compensatory plantation will be made near the vicinity of the land where the trees were felled, as far as practicable.
14. Safety and conducive growth environment for the trees, to be provided at the time of beautification work.



Chairman
Bhadreswar Municipality