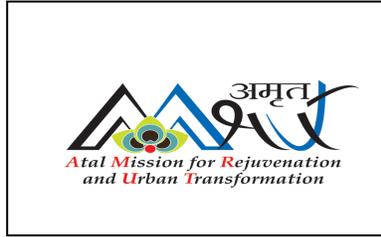


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## MONTHLY NEWS LETTER FROM BARANAGAR MUNICIPALITY

From Chairman's Desk

### Utility of Urban Forestry and Plantation

Urban forests play an important role in [ecology](#) of human habitats in many ways: they filter air, water, sunlight, provide shelter to animals and recreational area for people. They moderate local climate, slowing wind and storm water, and shading homes and businesses to conserve energy. <sup>[1]</sup> They are critical in cooling the urban heat island effect, thus potentially reducing the number of unhealthy [ozone](#) days that plague major cities in peak summer months.

In many countries there is a growing understanding of the importance of the natural ecology in urban forests. There are numerous projects underway aimed at restoration and preservation of ecosystems, ranging from simple elimination of leaf-raking and elimination of invasive plants to full-blown reintroduction of original species and riparian ecosystems.

The presence of trees reduces stress, and trees have long been seen to benefit the health of urban dwellers.<sup>[2]</sup> The shade of trees and other urban green spaces make place for people to meet and socialize and play. People are instinctively drawn to nature, while Attention Restoration Theory goes on to demonstrate tangible improvements in medical, academic and other outcomes, from access to nature. Proper planning and community involvement are important for the positive results to be realized.

Trees and shrubs provide nesting sites and food for birds and other animals. People appreciate watching, feeding, photographing, and painting urban wildlife and the environment they live in. Urban trees, shrubs and wildlife help people maintain their connection with nature.

The economic benefits of trees and various other plants have been understood for a long time. Recently, more of these benefits are becoming quantified. Quantification of the economic benefits of trees helps justify public and private expenditures to maintain them. One of the most obvious examples of economic utility is the example of the deciduous tree planted on the south and west of a building (in the Northern Hemisphere), or north and east (in the Southern Hemisphere). The shade shelters and cools the building during the summer, but allows the sun to warm it in the winter after the leaves fall.

As cities struggle to comply with air quality standards, trees can help to clean the air. The most serious pollutants in the urban atmosphere are ozone, nitrogen oxides (NOx), sulfuric oxides (SOx) and particulate pollution. Ground-level ozone, or smog, is created by chemical reactions between NOx and volatile organic compounds (VOCs) in the presence of sunlight. High temperatures increase the rate of this reaction. Vehicle emissions (especially diesel), and emissions from industrial facilities are the major sources of NOx. Vehicle emissions, industrial emissions, gasoline vapors, chemical solvents, trees and other plants are the major sources of VOCs. Particulate pollution, or particulate matter (PM10 and PM25), is made up of microscopic solids or liquid droplets that can be inhaled and retained in lung tissue causing serious health problems. Most particulate pollution begins as smoke or diesel soot and can cause serious health risk to people with heart and lung diseases and irritation to healthy citizens. Trees are an important, cost-effective solution to reducing pollution and improving air quality.

With an extensive and healthy urban forest air quality can be drastically improved. Trees help to lower air temperatures and the urban heat island effect in urban areas (see: 'Trees are energy savers' for more information on this process). This reduction of temperature not only lowers energy use, it also improves air quality, as the formation of ozone is dependent on temperature. Trees reduce temperature not only by directly shading: when there are a large number of trees it creates a difference in temperatures between the area when they are located and the neighbor area. This creates a difference in atmospheric pressure between the two areas, which creates wind. This phenomenon is called urban breeze cycle if the forest is near the city and park breeze cycle if the forest is in the city. That wind helps to lower temperature in the city.

Trees growing in urban areas bestow a great variety of benefits and problems. While this section will concentrate mainly on the benefits that trees provide, many are not gained without some cost. For example, street trees providing shade and ornamentation often, especially if their location was not carefully planned at planting, raise and crack the pavement with their roots. The very use of a tree for one purpose by a certain individual may be seen as a problem by another; the lopping of a tree for fodder will alter its shape and render it, in the eyes of some, far less attractive in ornamental terms.

**Thanks and regards**

1. Beautification Work of Park under 2016-17 has been Started.
2. Tender Process for park under 2017-18 –The Financial BID Comparison Sheet has been Sent to SLTC for Final Approval.