



# URBAN FOREST, CITY LOUNG

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Like many other developing countries, there is substantial evidence of widespread environmental degradation throughout Turkey. The primary manifestation of ecological deterioration is visible in the form of large scale deforestation, soil erosion and degradation, and loss of natural areas.

According to FAO's data, continues growth in Turkey's economy and population (as one of the developing countries) has been accompanied by increasing consumption and processing of natural resources. In the long list of environmental crisis which includes large, sprawling and poorly organized cities lacking in public services and declining environmental quality through air, water and soil Pollution, and modification of the microclimate especially, change in temperature. These problems are not new although they have received much publicity recently. Demographers, urban planners and development experts started talking about the impending crises of urban areas in recent years.

Rising temperature is one of the pressing problems of cities in turkey. On the hot summer days, one can feel the waves of blistering heat emanating from roads and dark buildings which keep urban areas hot, even long after the sun set, while the rural areas have already began to cool rapidly. Differences in the energy budgets- amount of heat energy, in any form, that arrives at or departs from the surface of the object in a specified time period (Oliver and Rhodes, 1987)-of city and the countryside lead to temperatures which are warmer in the cities than in the adjacent countryside. This condition, known as urban heat island is due to the great amount of brick, concrete and asphalt in a city which provides a surface which favors this condition of heat.

Tree plantation in cities are becoming part of the comprehensive urban planning process. Urban planning can incorporate these natural elements to help solve the pressing urban problem of rising temperature. The impact of trees in urban areas on the micro scale has been the subject of number of studies in countries primarily in the temperate zones such as china and United states( Parker, a983; McPherson and Rowan, 1989).Preliminary measurements form suburban acraento, California, in neighborhoods with mature canopies indicate daytime air temperature 3-6 °F lower than in areas with no trees . Greater and more efficient use of trees in urban areas could increase the reduction in temperature even more. An average, summer daytime temperature reduction of 6.4 ° F has been documented in association with large trees in Miami, Florida (Parker, 1989). In today's complex urban environment, tree planting is something that also to be emphasized in semi-tropic areas such as Turkey where no such studies have been done. (In my research time period there is really less documented

reachable data in Turkey). Strategically Planting of trees to lower summer temperature in urban areas of Turkey has not been proposed and emphasized so far because of

1. Deficiencies in knowledge about the importance of trees in urban environments among enforcing authorities and the public and
2. Lack of public participation in urban tree planting due to ecological illiteracy.

The lack of attention to urban trees in Turkey can be well documented by visiting the cities.

Understanding the relationship between the urban trees and the environment can help to improve the urban design, and increase the public's awareness of the importance of trees in their living environment (Bartenstein, 1981).

The rising temperature in the cities is adversely affecting the quality of urban life, causing human discomfort, increasing energy costs, and increasing electricity demand in summer (Heisler, 1986). Urban climate is also adversely affecting the health of city dwellers. It is estimated that 30% of the urban-air-quality problems are heat-related. Unfortunately, most of Turkey's urban planning elite (planners, policy makers, forest scientists and educators) either fail to recognize the importance of trees, especially in an energy conservation context in urban areas, or are content to ignore it. For politicians, tree planting is not as attractive as higher profile industrial or commercial projects. A large number of property owners are not taking responsibility for planting and taking care of trees. Among municipalities and other governmental developmental organizations the concept of urban trees as a forest is not recognized with the result that proper management systems are not applied to manage the existing trees and trees are not recognized as a valuable community resource. For many decades hygienists in Europe have urged the preservation and increase of green areas in cities and they considered parks as the "lungs of the metropolis". In Germany, the Netherlands, and other parts of the world, the beneficial climatological effects of urban trees are considered in land use policy (Bartenstein, 1981).

But in Turkey among governmental agencies, a principle justification is to provide green areas in city planning to improve the aesthetics of towns. Beyond the highly desirable social aim of beautification there is a lively interaction between the urban atmosphere and trees. In general, trees mitigate the less desirable aspects of the urban climate. They reduce stress produced by the heat island, decrease noise levels, filter out certain pollutants and reduce residential energy use (McPherson and Simpson, 1996). Because there is a lack of information about these aspects of trees, government and public believe that

the importance of urban trees lies mainly in their "beauty," with the result that trees in the cities are often considered more a liability than an asset.

In different countries different bodies are charged with urban tree planting; furthermore, it may be anticipated that there is great variation in the proportion of land under different ownership arrangements. Some of the major players that may be involved in urban forestry in developing countries are outlined (FAO, official website, 2014). The list is almost certainly incomplete, and all groups are unlikely to be involved in any given town or city.

- State political administration
- State departments
- Municipal Councils
- Environmental NGOs
- Donor agencies
- Corporate Business
- Academic institutions
- Local groups of residents (organized or loosely knit)
- Individuals

There is little specific mention of the role of government departments, beyond the account of Shyam Sunder (1985) (himself a member of the Forest Department), who documented how the municipal authorities of Bangalore were unable to supply large numbers of seedlings for urban planting. At the behest of a State politician, the Forestry Department (which previously had no urban remit) took over responsibility for tree planting in Bangalore, a matter in which, he argues, they were better equipped due to their superior nursery arrangements. An unwritten implication of the article is that there could be strong inter-departmental rivalry. (FAO online catalogue, 2014)

There is structured formal governmental policy about urban trees in Turkey at the national, provincial or city levels, there is not well organized executive forces in Turkey, unlike most European countries, the United States and in many developed as well as less developed countries such as Hong Kong and Brazil. In these countries it is accepted as a part of government planning policy that trees are desirable on streets and should be provided. In these countries government regulations concerning urban tree preservation and felling, and techniques for the planting and maintenance of these trees,

have been set and specific legislation for urban forests has been created and enforced (Lawson, 1996; Johnston, 1996; Webb, 1996).

The support of local political leaders is often a key factor in the success of urban forestry. Advantages and disadvantages can be seen from the support of influential figures, as the case of Turkey clearly illustrates. While resources may be quickly mobilized and popular support engendered, these will only serve effective purpose if the political demand for rapid results is prevented from over-ruling sound and sustainable implementation. Municipal authorities often play a key role in advising and acting upon the legislative aspects of urban forestry.

To date, urban forestry has played only a minor role in programmers of bilateral and multilateral development agencies. Support that has been given by large donor agencies appears to have been channeled mainly into peri-urban plantations for fuelwood and to a somewhat lesser extent to watershed protection in peri-urban areas. In this, both the FAO and the World Bank have been involved. Research on urban forestry may be conducted through the Forestry Department (particularly on matters such as species selection), but may also be conducted by academic institutions - either universities, or other research bodies. Research responds to requirements, and that results are disseminated, will be particularly important.

For conclusion, I tried to raise a number of key issues to be addressed in developing urban forestry in the Third World. First, a survey of the literature on urban forestry in developing countries shows that information is both limited and scattered. There is clearly a need to improve documentation of experiences, gather and synthesize available information, and carry out studies to examine critical issues in greater depth. Areas needing further investigation include: approaches and methodologies for planning urban forestry programmers; the relative importance of the environmental and productive functions of urban forestry; degree and means of encouraging local participation in urban forestry initiatives; building up the technical knowledge base; and information dissemination and exchange.