

Green City Concept– As New Paradigm in Urban Planning

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ABSTRACT

As towns and cities are growing at an alarming rate, with an increasing trend of urbanization, which in turn increases greater demand for urban infrastructure and urban land for accommodating the future urban growth and development. At the same time these aspects became a very significant component to redefine their planning approach by the concerned authorities of the city, such as the urban local bodies like City Corporation which are taking care of urban growth and development in most of the compactly developed areas of the city or town. The urban areas beyond local body's jurisdiction are generally taken care by urban planning and development authorities to accommodate future urban growth and development with a comprehensive approach through proper urban planning processes. In spite of the comprehensive approach in urban planning most of the urban problems remained as irresolvable and becoming beyond the control of planners which in-turn bring down both quality of life and the natural environment. On the other hand a green city planning concept, not a new concept, but it is a new approach in the urban planning processes to overcome existing inabilities in handling the urban problems which were treated as complex and un-resolvable to make urban planning more sustainable without damaging the urban ecology and environment.

Keywords: Ecology; Environment; Green City Concept; Urban Planning.

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I.INTRODUCTION

Towns and Cities are growing at an alarming rate, with an increasing trend of urbanization along with greater demand for urban services which are increasing beyond the capacity of service providers in all cities in India. Hence gap between the Demands and the supply of these services is widening from Decade to decade. Similarly the demand for urban land and infrastructure, which are supplied through different public and private service providers are becoming shortage and also attained problems of complex dimensions. It is a common problem in almost all cities of India. It is a known fact that towns and cities in India are growing at a tremendous rate, with a high trend of urbanization which in-turn causes greater demand for urban services. The need of a proper planning which is required to accommodate the urban growth and development through urban local bodies in most of the compact development areas and the growth and developments in the areas beyond local bodies are generally taken care by urban planning and development authority with comprehensive approach.

What is the meaning of proper planning?

How to provide urban services without damaging the natural environment?

How to establish harmony by providing healthy life and healthy environment?

All these queries can be answered if the existing urban planning adopts the Green concept. This paper discusses about how a green city concept can intervene in urban planning by considering one of the principal component in urban planning is land use. Under green concept where it focuses majorly on the conservation and management of urban land through the urban planning processes, primarily it is required to consider "Land as a resource". The land use planning is considered as the major component in this paper under the perspectives of green city planning.

If the land is not considered as natural resources and if the land use issue is not taken care with respect to increasing trend of urbanization and rapid or massive urban expansion through proper urban planning processes, it will damage the whole natural environment in the urban context.

II. STUDY AREA

In this paper the concept of green city planning has been discussed and especially land use planning in the urban context of the study area Mysore city. The Mysore is one of the fast growing city located in the closer proximity to Bangalore is a capital city of Karnataka. Since 14th century with the establishment of Wodeyar dynasty by Yaduraya, the city of Mysore is developing as a centre of arts, culture and tourists. The rulers of Mysore State have given its most attention for the socio-cultural infrastructure because of pleasant climate and accessibility throughout the year.

III. METHODOLOGY

This paper focuses only on the thematic discussion of other issues connected to sustainable development and its relevance in the concept of green city planning in the urban planning process. The following discussion has been carried out by reviving different literatures. The land use planning for the urban context of cities under the perspectives of green city planning has been discussed in many literatures. A review of those is summarized as follows. Table -1 show the land use for the period from 1995 to 2011 and Fig.1 shows the land use map of Mysore city.

Table -1 Land Use for the Period from 1995 to2011

| Category | % of area in 1995 | % of area in 2001 | % of area in 2011 |
|------------------------|-------------------|-------------------|-------------------|
| Residential | 40.4 | 39.9 | 43.45 |
| Commercial | 2.41 | 3.02 | 2.45 |
| Industrial | 13.4 | 13.48 | 13.22 |
| Park and open space | 5.49 | 13.74 | 7.52 |
| Public and semi public | 11.32 | 8.96 | 8.41 |
| Transportation | 20.22 | 16.1 | 16.96 |
| Public utility | 0.49 | 0.51 | 0.31 |
| Water sheet | 2.41 | 2.02 | 1.27 |
| Agricultural | 3.73 | 2.27 | 6.41 |

Source: Mysore Urban development authority, Mysore.

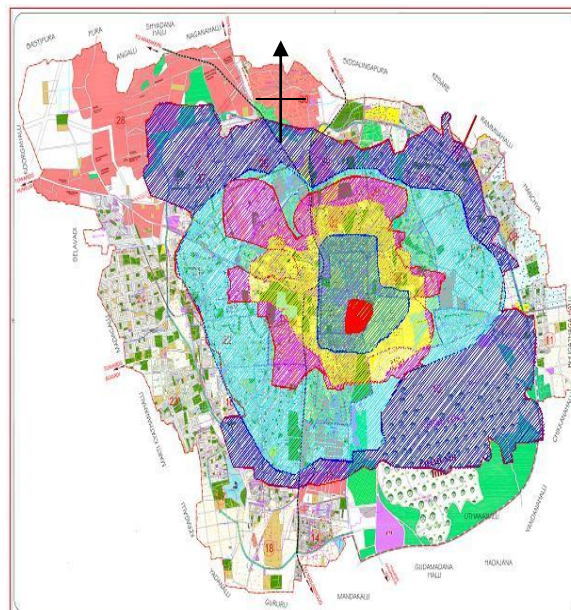


Figure 1: Mysore city Land use maps of different periods superimposed

IV. RESULTS AND FINDINGS

4.1. Sustainable Development

The concept of sustainable development is now enshrined on the masthead of Environment magazine, featured on 8,720,000 Web pages, and enmeshed in the aspirations of countless programs, places, and institutions; it should be easy to complete the sentence. But the most widely accepted definition is creatively ambiguous: “Humanity has the ability to make development sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations.

A brief history of the concept, along with the interpretive differences and the common ground in definitions, goals, indicators, values, and practice are taken together, which helps to understand what, is meant by sustainable development.

The malleability allows one to analyze programs of both environment and development; which places from local to global; and institutions of government, civil society, business, and industry to each project their interests, hopes and aspirations onto the banner of sustainable development.

In the last half of the twentieth century, four key themes emerged from the collective concerns and aspirations of the world’s people peace, freedom, development and environment. The successive attempt on these is still not fulfilled, however, it is only in the past 40 years that the environment (local to global) became a key focus of national and international law and institutions.

Although reinterpreted over time, peace, freedom, development, and the environment remain prominent issues and aspirations. In the 1970s and 1980s, world commissions of notables were created to study such international concerns, producing major documents that were often followed by global conferences. Characteristic of these international commissions was the effort to link together the aspirations of humankind—demonstrating how the pursuit of one great value required the others. Sustainable development, with its dual emphasis on the most recent concerns—development and environment is typical of such efforts.

The World Commission on Environment and Development was initiated by the General Assembly of the United Nations in 1982, and its report, *Our Common Future*, was published in 1987. It was chaired by then–Prime Minister of Norway Gro Harlem Brundtland, thus earning the name the “Brundtland Commission.” The commission’s membership was split between developed and developing countries. Its roots were in the 1972 Stockholm Conference on the Human Environment where the conflicts between environment and development were first acknowledged and in the 1980 World Conservation Strategy of the International Union for the Conservation of Nature, which argued for conservation as a means to assist development and specifically for the sustainable development and utilization of species, ecosystems, and resources. Drawing on these, the Brundtland Commission began its work committed to the unity of environment and development.

As Brundtland argued “The environment does not exist as a sphere separate from human actions, ambitions, and needs and attempts to defend it in isolation from human concerns have given the very word “environment” a connotation of naivety in some political circles. The word “development” has also been narrowed by some into a very limited focus, along the lines of “what poor nations should do to become richer,” and thus again is automatically dismissed by many in the international arena as being a concern of specialists, of those involved in questions of “development assistance.” But the “environment” is where we live; and “development” is what we all do in attempting to improve our lot within that abode. The two are inseparable”.

As with previous efforts, the report was followed by major international meetings. The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 (the so-called “Earth Summit”) issued a declaration of principles, a detailed Agenda 21 of desired actions, international agreements on climate change and biodiversity, and a statement of principles on forests. Ten years later, in 2002, at the World Summit on Sustainable Development in Johannesburg, South Africa, the commitment to sustainable development was reaffirmed. In the interim, sustainable development as a concept, as a goal, and as a movement spread rapidly and is now central to the mission of countless international organizations, national institutions, corporate enterprises, “sustainable cities,” and locales.

The Brundtland Commission’s brief definition of sustainable development as the “ability to make development sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs” is surely the standard definition when judged by its widespread use and frequency of citation. The use of this definition has led many to see sustainable development having a major focus on intergenerational equity. Although the brief definition does not explicitly mention the environment or development is clear that the economic growth also has equity to share resources with the poor is required to sustain them; and that equity is encouraged by effective citizen participation. The concept of sustainable development does imply limits not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities.

In the years following the Brundtland Commission's report, the creative ambiguity of the standard definition, while allowing a range of disparate groups to assemble under the sustainable development, also created a veritable industry of deciphering and advocating what sustainable development really means. One important study—by the Board on Sustainable Development of the U.S. National Academy of Sciences—sought to bring some order to the broad literature its members reviewed. In its report, *Our Common Journey: A Transition toward Sustainability*, the board focused on the seemingly inherent distinction between what advocates and analysts sought to sustain and what they sought to develop, the relationship between the two, and the time horizon of thus under the heading “what is to be sustained,” the board identified three major categories—nature, life support systems, and community—as well as intermediate categories for each, such as Earth, environment, and cultures.

Finally, the Global Scenario Group also prepared a more idealistic Great transition Scenario that not only achieved the goals of the sustainability transition outlined by the Board on Sustainable Development but went further to achieve for all humankind “a rich quality of life, strong human ties and a resonant connection to nature [1].

4.2, Ecosystem approach to urban management and policy development

A study of report edited by Peter J Marcotullio and Grant Boyle in 2003 is defining an ecosystem approach to urban management and policy development has a brief history of ecosystem approaches for understanding urban dynamics.

The report is based on work conducted at the Institute and builds on previous collaborations with. The UNESCO on Man and the Biosphere. Programme and the World Health Organization Healthy Cities Programme. The paper sets forth an ecosystems vision of city management and policy development and provides the groundwork for future urban ecosystem studies and assessments. Rather than a final product, however, the characterizations, concepts, and evidence are intended to provide stimulus for further discussions in this area.

Currently there are number of different approaches for environmental management that claim to use the ecosystem approach. The core requirement that a specified physical environment and its associated organisms are functionally linked is central to using this method. Many different conceptual structures have been built upon this understanding. Adding to the sense that the concept is being used in a variety of different ways, its application is used by an increasingly diverse set of academic disciplines. Anthropologists, sociologists, geographers, landscape architects, and urban planners, among others, have used the concept of ecosystem, while drawn from biological sciences, to define an approach that blends human activities and ‘natural’ processes.

As discussed in these literatures advocate that the ecosystem concept derives from the notion that the city is both a ‘system’ and a ‘natural’ entity. Therefore, it can be approached with similar concepts to those used by systems engineers and ecosystem biologists. At the same time, there are limitations to the strict use of this term in the biological sense, as the linkages between elements and flows within the urban ecosystem are not as ‘tight’ as those within a natural system. Actions of people heavily influence cities for which no model in any of the sciences can satisfactory predict or explain. Thus, within the city as a ‘natural entity’ metaphor, a variety of different strands of thinking has developed. Studies at these notions provide the basis for developing an understanding of an ecosystem approach to urban planning management and policy development. The review suggests that there are currently developed ways in which the ecosystem approach can be used as a base to overcome a variety of issues that have helped to create the complex urban environmental management situations [2].

4.3, Sustainable planning

In 2000 an Australian Agency for International Development (AusAID), of the Australian government's Under Overseas Aid Program has published a report on ‘Promoting Practical Sustainability’. The report advocates that, the Sustainability is a key attribute to find clear and explicit sustainability strategy in all major projects assessments. It recommends study of the practical aspects for all major urban planning and design projects which are required to be designed under the sustainable approach.

The report has provided guidelines for sustainable planning and design for AusAID staff, contractors, NGOs and other implementing partners with practical guidance on how to address sustainability issues more explicitly and effectively throughout the activity management cycle. The report says “Managing sustainability is a process aimed at maximizing the flow of sustainable benefits”. It should be an ongoing process and needs to be reviewed and updated as circumstances change and lessons are learned from experience. Without being too risk averse with the initial selection of programs and projects, all the bilateral and regional aid activities should be designed and managed with an aim of achieving sustainable benefits; with the possible exception of one-off

emergency and humanitarian relief activities. Because there is no one single way to achieve sustainability, country, sector, and program/project specific circumstances need to be taken into account. However each individual program or project should define its own sustainability strategy on a case-by-case basis [3].

4.4, Environment policy issues

In 2011, a Joint progress report of the executive directors of the United Nations Environment Programme and the United Nations Human Settlements Programme, have prepared in 2011 under the Governing Council of the United Nations Environment Programme has a discussion on environment policy issues. The policy issues in relation to coordination and cooperation within the United Nations system on environmental matters which has discussed in this report also provides an overview of the progress made over the period 2009-2010 in strengthening the cooperation between the United Nations Environment Programme and the United Nations Human Settlements Programme.

The implementation plan for 2010-2011 is focusing on the issue of cities and climate change, with particular attention to, first, cities and climate change assessments; second, ecosystem-based adaptation in coastal cities; third, buildings, housing and construction; and fourth, sustainable urban transport. The Group has the mandate to coordinate the partnership framework and is the primary vehicle for overseeing the implementation of joint activities.

In addition, other forms of cooperation are being pursued at the local, regional, national and global levels. The current work plans were implemented under the overall theme of cities and climate change. The plan in joint activities focused on the urban greenhouse-gas emissions, the assessment of urban vulnerability to climate change impacts and the development of innovative adaptation mechanisms. The ecosystem services and mitigation efforts at the city level by adopting green strategies particularly in the building and transport sectors with respect to low carbon material and low energy consumption promoting alternative material resources, less human intervention planning and design strategies etc. In the overall urban planning processes these factors are very much important to adopt green concept [4].

4.5, Green Economy

An advance copy of online release on the topic 'towards a green economy' (2011) has key message which says that; the urban development should have to be fundamentally changed to facilitate the transition towards a green economy. According to report the urban areas will become home to 50 per cent of the world's population in the near future, but they account for 60-80 per cent of energy consumption and 75 per cent of carbon emissions. Rapid urbanization is exerting pressure on fresh water supplies, sewage, the living environment, and public health, which affect the urban poor most. In many cases, urbanisation is characterised by urban sprawl and peripheralisation – which is not only socially divisive but increases energy demand, in turn puts pressure on carbon emissions and Sevier impact on ecosystems. A unique opportunity always exists in all cities to leap for greening the global economy. Also there are genuine opportunities for national and city leaders to reduce carbon emissions and pollution, enhance ecosystems, and minimise environmental risks. By using the opportunity, it is possible to promote compact, relatively densely populated cities with a mixed-use urban form which are more resource-efficient than any other settlement pattern with similar levels of economic output. Integrated urban and regional planning and design strategies with the aid of technologies are also available to improve urban transport, the construction of buildings, and the development of urban energy, water, and getting energy from urban waste systems in such a way that they reduce dependency on natural resources and energy consumption in the process of sustainable planning for the future. Relatively high densities in urban development are a central feature of green cities, bringing efficiency gains and technological innovation through the proximity of economic activities while reducing resource and energy consumption. Urban infrastructure including streets, railways, water, and sewage systems come at considerably lower cost per unit as urban density rises [5].

V. CONCLUSION

All these aspects are the issues directly connected to urban and regional planning, but many of these are scattered away from the urban and regional spatial planning jurisdiction practice. Still the urban and planning systems in India as well as states in India are following past traditional planning approaches without updating. In spite of it the vibrant talk of smart city, eco-city, clean city etc., will not serve the objectives of sustainable growth and development, unless the formulation of guideline, act, policies under the perspective sustainable planning are not redefined - achieving aim of creating healthy habitat with healthy natural environment is not possible.

Planning refers to the process of deciding what to do and how to do it. Planning occurs at many levels, from day-to-day decisions made by individuals and families, to complex decisions made by businesses and governments. However, Planners are professionals who facilitate decision-making. Planners do not make decisions themselves; rather, they support decision-makers (managers, public officials, citizens) by coordinating information and activities. Their role is to create a logical, systematic decision-making process that results in the best actions.

Although grounded in the mundane, planners help nurture a community's deepest aspirations, such as love, hope and beauty. Planners translate theoretical goals into specific actions. But actions and goals keep changing with the changing dimensions of socio-economic and socio-spatial character of the region or settlement. Hence the green city planning will stand as an approach in new paradigm of urban planning and will guide the changing natural environment with the changing urban society for creating a healthy city and healthy natural environment.

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