

PROMOTING SUSTAINABLE URBAN DEVELOPMENT AND SUSTAINABLE ENVIRONMENTAL EDUCATION : EMERGING CURRENT CHALLENGES AND CONCERNS TO URBAN LOCAL BODIES

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ABSTRACT

The proportion of world population living in cities has surpassed rural population. Many cities are therefore facing major challenges in maintaining and restoring the environmental ecology on which they depend for their functioning and at the same time provide equitable access to natural and man made resources to all city dwellers. Rapid and unregulated urbanization has led to deterioration and degradation of our environment. Following the discourse about Sustainable Development based on the Brundtland Commission's report and the processes in the UN Committee on environment and development, a sustainable urban development would require considerably more ambitious policies than today in order to limit energy consumption, reduce pollution and protect natural areas and arable land. Local city government and urban local bodies can actively coordinate and mainstream mitigation, adaptation and resilience into urban planning processes to prepare their cities to lead with climate risks and impacts. Low-carbon development strategies are one way of promoting mitigation, adaptation and resilience at the same time they are best implemented through an environmentally oriented and integrated city planning process. All members of society are the stakeholders of Sustainable Development. Maintaining occupational, cultural and economic heterogeneity of population is on the whole a major challenge facing urban local governments in achieving Sustainable Development. Therefore, urban local bodies could directly promote environmental protection and sustainable development and work towards the welfare of the people by providing civic, social and economic infrastructure services and facilities in urban areas. Sustainable urban development had not been a priority for India. But this changed in 2005, when finances for sustainability strategies were allocated to Indian cities under the Jawaharlal Nehru

Urban Renewal Mission (JNURM). After several separate initiatives and schemes, to address urban problems and sustainable urban planning, JNURM emerged as flagship scheme, which adapted reform-based funding approach that would help Urban Local Bodies (ULBs) receive funds for infrastructure development and basic services for urban poor. Sustainability and resilience can be promoted through a combination of strategies such as integrated urban planning, identifying synergies between disaster risk reduction and adaptation, building efficiency of urban service quality and delivery and promoting green buildings and sustainable transport. The present paper explores the role and challenges which the urban local governments and urban local bodies are facing in practical implementation of resilience, sustainability strategies and promotions of sustainable urban development, so as to reduce climate impact caused by carbon emission and rapid environmental degradation. This paper also provides a conceptual framework and analysis for the decentralized and improved local/urban governance in promoting efficient sustainable development and environmental protection.

Key Words: Environmental protection. Climate resilience, Sustainability, Sustainable Development, Urbanization, Urban Local Bodies.

Introduction

Sustainable Development means attaining a balance between environmental protection and human economic development and between the present and future needs. It means equity in development and sectoral actions across space and time. It requires an integration of economic, social and environmental; approaches towards development. Sustainable Development refers to attaining social equity and environmental protection in urbanization while minimizing the threats of urbanization.

Since, the report from the UN World Commission on Environment and Development (WCED)⁴ was published in 1987; the concept of Sustainable Development has become an important part of the vocabulary of politicians, administrators and planners. Nowadays, many planners believe that the most important challenge facing the profession today is to replace current resource-consuming and environmentally straining activities within their respective fields of planning; with a sustainable development. Today environmental problems in many cities, whether large or small can be attributed to lax land policies-use policies that encourage sprawl and hence more dependence on mechanical means of heating and cooling, increased use of private vehicles for commuting, and concentrations of single land-use. Consequently, urban sprawl tends to agglomerate several small cities around a parent city. These smaller cities in turn engulf agricultural land, forest area and wetlands as they expand. Over the course of time, they require supporting infrastructure as they become more energy intensive. Thus is becoming increasingly visible in developing world cities.

Now local urban bodies are directly influencing the welfare of the developing cities, as well as of their people by providing basic civic, social and economic infrastructure services and facilities in urban city areas and in the meanwhile they are also maintaining and promoting Sustainable Urban Development. Constitutional Amendment Act of 1974 has occurred and has given a constitutional status to Urban Local Bodies (ULBs) across our country for effective functioning and to ensure provision of urban services and infrastructure (Mishra, Amareswar, 1999)¹³. The ULBs in many developing cities of India are struggling to provide transport, water and sanitation services to the ever-increasing urban population. Low carbon development as an urban planning intervention has the potential to reduce energy utilization by enabling physical proximities between buildings as well as land uses. In spite of the realization that Sustainable Urban Planning has direct as well as indirect benefits for sustainability resilience, the situation for India's ever-growing cities seems bleak and is aggravated by climate change threats. The priority should be to use urban planning for mitigation, adaptation, resilience, and sustainability by directing strategies to climate proof cities.

ULBs and city governments need to actively coordinate and mainstream mitigation, adaptation and resilience into urban planning process to prepare their cities to deal with climate risks and impacts how-carbon development strategies are one way of promoting mitigation, adaptation and resilience at the same time. They are best implemented through an environmentally oriented and integrated city planning process. Communities in the developed world have already started to think and act towards the revamping the way their cities function and develop through regional plans and policies that drive planning towards sustainability; but this is not the case in developing countries.

Urban development has not always been a priority for India, a country that has relied heavily on rural and agricultural related economic activities. But this changed in 2005, when finances were allocated to Indian cities under the Jawaharlal Nehru National urban Renewal Mission (JNNURM)¹² emerged as a flagship scheme, which adapted reform based funding approach that could help ULBs receive funds for infrastructure for urban poor whilst updating their own capacities and systems by implementing mandatory reforms. JNNURM also holds the potential in its next phase to take up some of the activities proposed under the National Mission on Sustainable Habitat (NMSH) which is one of the Missions under the National Action Plan for Climate Change (NAPCC)¹⁶. NAPCC mission aims to manage India's climate change agenda through multiple components that seem to work without cohesion. It includes a National Solar Powers Mission (NSPM), Enhanced Energy Mission, National Water Mission, National Mission on Sustainable Habitat, National Mission for Sustainable Agriculture, and National Mission on Strategic Knowledge for Climate Change. The National Mission on Sustainable Habitat (Ahmad &Choi, 2010)¹ which is one of the eight National Missions under the National Action Plan on Climate Change is the vehicle for promoting environmental sustainability. The Mission seeks to promote

sustainability of habitats through improvements in the energy efficiency in buildings, urban planning, improved management of solid and liquid waste including recycling and power generation, modal shift towards public transport and conservation. It also seeks to improve ability of habitats to adapt to climate change by improving resilience of infrastructure, community based disaster management and measures for improving advance warning systems for extreme weather events. The NMSH mission is the only one that deals specifically with urban areas and constituent needs (Ahmad & Choi, 2010)¹.

In 2006, the Municipal Corporation of Hyderabad city devised a Master budget for environmental expenditures, managing their natural resources in the same way as their financial resources. For example, ‘green surfaces areas’ were recognized as an environmental indicator and the municipality allocated a base-line value of inhabitants. Short term and long term targets were set as spending limits to, “internalize the true environmental costs of different city level decision making efforts” (City Alliance, 2007)⁵. This requires the stakeholders’ involvement while addressing physical, social and institutional dimensions of resilience. The provision of basic services, for instance, forms an obstacle to physical urban resilience. Therefore, Sustainable Urban Development and Planning is an effective and practical tool to promote resilience, and low carbon emission development in urban cities.

Concept of Sustainable Urban Development

The Brundtland Commission⁴ in its report, makes it clear, that a Sustainable Development is first and foremost necessary --- about ensuring that everybody—both in poor and rich countries, and today as well as in future generations—can have their basic needs met. This must be obtained without jeopardizing the natural systems on which life on earth is dependent. Meeting vital needs is thus a key element of a Sustainable Development. The Brundtland Commission mentions, food, water, clothes, shelter, work, energy and hygiene as examples of what is termed ‘basic needs’, and continues with the following (1987, p44)⁴ :- “Living standards that go beyond the basic minimum are sustainable only if consumption standards everywhere have regard for long term sustainability. Yet many of us live beyond the world’s ecological means, for instance, in our patterns of energy use”.

Thus, fostering Sustainable Urban Development by meeting the basic needs for everybody within the constraints set by the earth’s ecological carrying capacity has two important implications. Firstly, to secure the possibilities for future generations to meet their need, present-day generations must limit their encroachments on the natural environment and consumption of non-renewable natural resources. Secondly, increased material consumption in developing countries, which can be necessary in order to meet the basic needs of the poor, must be accompanied by reduced material consumption levels in the industrialised countries if the environmental load on the planet as a whole

is to be kept within sustainable limits. Thus, the concept of Sustainable Development comprises a strong element of distributive ethics, focussing on the distribution of benefits and burdens over time (across generations) as well as spatially (within generations).

The Brundtland Commission⁴ further writes that, “The conservation of nature should not rest only with developmental goals. It is part of our moral obligation to other living beings and future generations”. The challenges raised by the imperative of Sustainable Development will be different for urban planning in poor developing countries than in the Europeans and other wealthy regions of the world. The improvement of the residential and hygienic standard will be among the main tasks of a Sustainable Urban Development on an overall and general scale, the requirement of a Sustainable Development of land use, building stock and technical infrastructure might perhaps be formulated in the following ways:

“In order for the development of land-use, patterns of built-up land and infrastructure in an area to be characterized as a sustainable, it must secure that the inhabitants of the area can have their vital needs met in a way that can be sustained in the future, and is not in conflict with Sustainable Development at a global level”. In promoting Sustainable Development and spatial planning in developed and developing industrialized countries (e.g., OECD/CEMAT, 1994; UN/ECE, 1998; Ness, P, 1997)^{18, 17} the following five elements are emphasized:

1. Reduction of the energy use and emissions per capita the area (city, municipality, or region) down to a level compatible with ecological and distributional criteria Sustainable Development at global level.
2. A minimizing of the conversion and encroachments in natural areas, ecosystems and soil resources for food production.
3. A minimizing the consumption of environmentally\y harmful construction materials.
4. A replacement of open ended flows where natural resources are transformed into waste, with close loops relying to higher extent on local resources.
5. A sound environment for the city’s inhabitants, without pollution and noise damaging to the inhabitants’ health, and with sufficient green areas to give opportunities for the population to experience and become emotionally related to nature.

A high energy use contributes to a range of serious environmental problems, both when the energy is extracted/produced, transported and used. A sustainable level of energy use and emissions in European countries and in India must consider both a goal; of reducing the global-level energy use and related emissions, and a goal of increasing the material standard of living in developing countries. For example, the UN Climate Panel has suggested that the global Carbon dioxide emissions should be reduced by at least 60% as soon as possible. In practice, such a reduction would therefore imply that the annual consumption of fossil fuels be reduced by at least 60%. Some

of the reduction could be reduced by shifting to other energy sources than oil, coal and gas. In addition, also renewable energy sources are encountered with environmental problems, both in relation to the sustainable goals of biodiversity and natural conservation, and in relation to other environmental concerns like outdoor recreation opportunities and the protection of landscape amenities. Instead, the Commission emphasized the need for both a shift to a renewable energy sources and a development in the direction of a 'low-energy future'. The need to protect natural ecosystems and biological resources is strongly underlined in the Brundtland Commission's report. In par, this is grounded on an assumption that these environmental resources constitute a 'life support system' necessary for the future health and survival of human beings.

Loss of habitat is a main cause of extinction of species, and habitat loss and fragmentation are increasingly the direct results of urban Development (Beatley, 2000)². According the 1997, State of the World Report (Brown et al, 1997)³, "The global population increases faster than food production. There is reason to believe that a sustainable and less polluting agriculture sector would depend on larger cultivated area to maintain a given output of food products. The materials used in building and infrastructure can to a higher or lesser degree imply negative environmental impacts. In sustainability perspectives, it is of utmost importance to curb the consumption of building material from non-renewable or scarce, conditionally renewable natural resources; materials requiring a high energy use to the processes and/ or transported to the construction site; and materials causing serious encroachments in the localities where they are extracted".

The need for the urban environment, to satisfy its inhabitants' basic material needs in terms of, among others, housing and hygiene, without causing health risks to its residents, is strongly underlined in the Brundtland Commission's chapter on the 'Urban Challenge'(1987, Chapter 9)⁴. Thus, the present generations should develop a more responsible attitude to nature and the people, right from childhood onwards should experience nature and get related to it not only intellectually, but also emotionally.

Sustainable Development: A Challenge to Urban Local Bodies

The dictionary meaning of sustainability is the amount of degree to which the earth's resources may be exploited without deleterious effects. The term itself was introduced to the international community in 1980 by the World Conservation Union (IUCN, 1980)⁹. In June 1972, the UN general assembly convened a conference on the "Human environment" at Stockholm, which came out with the guiding principle on "human environment". It emphasized that man has the fundamental right to environment of quality and also that he has responsibility towards protecting the environment for present and future generations. It also maintained that natural resources of the earth must be safeguarded for the benefit of present and future generations. About a decade later, to address these issues concerning continuing depletion of natural resources and unsustainable

development, the World Commission on Environment and Development was created in 1987. Popularly known as Brundtland Commission (1987)⁴, it described Sustainable Development as, “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. After twenty years of Stockholm Declaration, the UN Conference on, ‘Environment and Development’ (also known as ‘Earth Summit’) was held at Rio de Janeiro in 1992 that adopted an action plan, popularly known as, ‘Agenda 21’. The Agenda 21 promised to reduce poverty, provide clean water and health care, and protect the natural resources and so on. The Millennium Development goals have also urged for ensuring environmental sustainability and reduction of the percentage of the population under extreme poverty. Similarly, explaining implications of climate change for Sustainable Development, the Intergovernmental Panel on Climate Change (IPCC,2007)¹⁰, notes, the importance of social initiatives taken so far on environment and development have stressed on economically viable development, socially equitable development and protection of the environment for attaining Sustainable Development.

The concept of Sustainable Development does not see environmental protection and economic growth as mutually exclusive and conflicting objectives. It underlines the need to tailor the objective of development based on carrying capacity of the environment. It looks into the integration of environment, economic and social considerations in the development that optimizes human and natural welfare and integrity for present and future generations. Both poverty and increase in population in less developed countries and increase in affluence of developed countries resulting into over consumption of all kinds of resources result into environmental problems. About 27% of the world’s population in the developed countries uses 75 percent of the world’s resources. It is the life style of the rich that consumes most of the resources. Further it considers the upliftment of all citizens of a society which enables them to realise their potential, build self confidence and live life’s of fulfilment and dignity.

Sustainable Development requires that the interrelationships between population, resources and environment and development-be fully recognised and brought into harmonious and dynamic balance. What needs to be realized is that Sustainable Development is both a goal and a process. Its attainment requires fundamental shift in attitudes, values and behaviours by both individuals and governments alike. Sustainable Urban Development specifically means achieving a balance between the development of the urban area and protection of the environment with an eye to equity in employment, shelter, basic services, social infrastructure and transportation in the urban areas. With rapid expansion of urban population around the world there has arisen a wide awareness about minimizing the environmental costs of urbanization. Concerns are raised at environmental damages and depletion of non-renewable resources and rising levels of pollution in urban areas. In recent times cities have become places of urban environment degradation and wasteful use of resources,

which is proving to be costly to generations present and future. In order to mitigate the problem we require minimizing the depletion of non-renewable resources and resorting to environmentally sustainable economic development. But this has to be done in ways that are socially, economically and politically acceptable. While planning for sustainable development of the towns, we should also take into account the factor of climate change. According to this ensuring environmental sustainability means a) integration of the principles of sustainable development in the policies and programmes of the country, b) reversal of loss of environmental resources, c) reduction of the proportion of people without sustainable access to safe drinking water, d) improving the lives of slum dwellers.

While planning for Sustainable Development of the towns and cities, we should also take into account the factor of climate change. These climatic changes can be caused by dynamic process on earth, external forces including variations in sunlight intensity and more recently by human activities. Human influences can be by increase in CO₂ levels due to combustion of fossil fuels, aerosols, cement manufacture etc. Other factors like-ozone depletion, animal agriculture and deforestation also changed climate. The effect of climate change can be found on among other things, on rising sea level that may accelerate coastal erosion, on increasing temperatures, on increase in intensity of natural disaster, and very importantly on vector bone diseases.

Accelerated glacier melt is likely to cause increase in the number and severity of glacial melt-related floods, slope destabilization and a decrease in river flows as glaciers recede. Thus, it is likely that climate change will hamper unsustainable development of India as it increases the pressures on natural resources and the environment associated with rapid urbanization, industrialization and economic development. Thus, translated into policy initiatives, environmental sustainability of urban form should aim at energy efficiency in transport and buildings, optimal planning solutions in terms of locations, distances and spaces, which will reduce air and noise pollution. The National Action Plan on Climate Change in June, 2008¹⁶ visualizes to make economic development of India efficient. All these concerns, questions and initiatives about Sustainable environment and climate change have resulted in experiments and debates over city forms that are sustainable.

Sustainability, globalization and social cohesion are changing the landscape of cities. Although change is inevitable, the question of cities is how best to manage this change. These changes further create new multifold challenges for cities. Deficiencies in infrastructure, the heavy cost of inappropriate policies, and the financial and technical weaknesses of local institutions are important constraints, whose cumulative and synergistic effects drain the potential for progress. The importance of cities for achieving global environmental sustainability is increasingly being recognised by governments, city networks, and international organizations. Thus sustainability

implies thinking and acting differently. This entails, “thinking globally, acting locally”. Some of the most dynamic cities, such as Paris and Seattle, are also well known for their quality of life and their efforts to achieve sustainable development. Harmonious integration of quantitative and qualitative objectives has to be based on active local democracy and citizenship.

The Urban local bodies at the local level should strengthen democratic institutions leading to better and more sustained management of natural resources. To enhance effectiveness of people’s participation in local governance, committees comprising both elected and executive members of local bodies and representatives of community groups, must be formed. Appropriate capacity building would enable them to undertake local development activities according to community priorities, monitor project implementation manage community assets. Where the conditions for such community empowerment have already been created, as in India thorough the 73rd and 74th amendments of its constitutions, effective implementation of the provisions should be created. The occupational, cultural and economic heterogeneity of population is on the whole a major asset in making development sustainable, but there are times of crisis when the same heterogeneity can become the basis of conflict and social insecurity. It is imperative to evolve participatory mechanisms of governance involving citizen groups and local authorities which will provide effective means of conflict resolution.

Environmental Education and Environmental Protection: Twin Major Challenges to Urban Local Bodies

Protection of Environment is another challenge which the Urban Local Bodies are facing. Prime Minister, Late Shri Rajiv Gandhi while launching the World Wide Fund for nature in the capital on 2nd November, 1989 dealt with the crux of the problem when he asked environmentalists to clear the confusion in their minds about the kind of development they would like to support without giving up their ecological commitment. The confusion has of late been worse confounded by the sharp division between the development and environment protection lobbies, with their taking up extreme positions.

Environmentalists, for instance, view every development effort with suspicion and actively campaign against industrial expansion, whether it be nuclear power plants or dam construction, if it involves clearing of forests or disruption of villages, while the development lobby warns the people that ecological protection lobby is bent on putting the clock back by trying to throw a spanner in the works of progress. The Prime Minister was not wide of the mark when he admitted “invariably we are groping in the dark when we try to protect nature”. Neither the Environmentalists nor the persons wanting rapid progress have been able to draw the line, which says to both the lobbies thus far and no further. The ecological balance, which both the groups swear by, is easy to define but difficult to obtain in practice. The people’s consciousness about environment and ecology is

reflected even among large industrial houses and many of them have made it a point to provide funds for reforestation programmes, whenever setting up of new plants require destruction of forests. This was unheard of in the earlier days, when forests were considered the bane of industrial progress, and their destruction was encouraged by the government in the name of progress. The concept of Sustainable Environment development should be drastically changed to create an awareness regarding environmental protection. This is the only way to lay the foundation for a new world for the coming generations.

According to Mr. B.N.Kirpal, first executive president of UNESCO, it is still unawareness about the various aspects of environmental protection among the people that is the cause of concern. He said that the environmental protection could be done by teaching the subject at the school level. Teaching would mean laying the foundation of a new world. It is necessary to create awareness among the people. If they realize that they are not going to survive, they will protect the environment. Mr.M.P.Derkatch, UNESCO representative in India and a noted environmentalist said that Education for Sustainable development should be the primary goal for any environment-oriented programme. Any such plan would not be able to succeed without educating the people, as nearly 50% of the population in the developing countries is still illiterate.

The environment movement has been late in coming to our country. Most of the people in our country are unfamiliar with its language, vague about its goal, ignorant of the full sweat of its implications and the radical changes in outlook and attitudes in demands. Even the highly educated can hardly give an answer to such questions as to what is Environmental crisis or even what is environment. Neither our formal or informal education prepares us for the task that awaits us in answering the call to action. The new power of science or rather because of it, man is losing control over his environment. Though Environmental problems differ from country to country and even from place to place in the same country, yet there is a certain similarity to the common problems. Man shapes his environment and his environment shapes him, his character, his manner of living and his future. It also serves as a large mirror, too large to be concealed, reflecting all that is good, bad and indifferent in the character of a people and revealing not only what it is, but strives to be. We can look at our environment to discover what kind of people we are because it is a mirror that cannot lie.

The need for protection of our environment was adequately expressed in a resolution adopted by the United Nations General assembly, 3rd December 1968. Environment protection and its development is necessary because of the continuing and accelerating impairment of the quality of the environment caused by air and water pollution, erosion and other forms of soil deterioration, waste, noise and secondary effects of biocides and pesticides accentuated by rapidly increasing population and accelerating urbanization. Though these days a section of intelligentsia is becoming conscious,

about depleting resources, deteriorating standards of life due to ever increasing serious problems of pollution, poverty and illiteracy, however, still a large section of our society has a very low awareness and sense of civic responsibility and growing tendency of indifference and negligence, which is in one way or other prevents them from thinking positively well in advance.

Education, being a powerful instrument, can perform the task of awareness development among people about all such burning issues like environment, population and poverty problems in India as mentioned above which are among some of the three dominating issues. The environment problem is the most significant one and seems to be a great challenge before the humanity. It is essential for the young school going as well as adult people, calling for their more active involvement towards the development of live able and comfortable better future through development of better appreciation and understanding of the consequences of unplanned human activities upon the total bio-physical-psychological environment. Environmental crisis is the greatest crisis of the day. Intervention by Urban Local Bodies through mass educational programmes in formal, non-formal and informal settings can be one important remedy. But the initiative regarding implementation of such programmes has to be taken by educational institutions. Universities must also take a lead in this area by framing suitable programmes for, personal training, and material preparation and execution of the whole program in a proper way. India having a large population and limited resources has a great proportion of illiterate persons. It is all therefore very difficult for Local Urban Bodies to control and impart awareness and importance of environment to such populations. It is also essential that a general awareness is generated amongst masses so that the environment is treated well and not allowed to get further deterioration. This is the problem of the masses. Urban local Bodies, role is therefore, important and vital for harnessing a prosperous and flourishing society.

Urban Local Bodies should also utilize the services of Public Service Broadcasting (PSB) AIR regularly, which regularly broadcasts programs on environmental awareness, forest development, forestry, and Wildlife and ecology etc. These are broadcast in different major languages, local dialects spoken by big and small communities across the length and breadth of the country. The coverage should be such that it covers wide range of local environmental problems, their solutions and the role of the people in avoiding the deterioration of the environment. Some of the important aspects of environmental problems on which Urban Local Bodies can organize programs and implement them are as following: -

- 1) Environmental problems and perspectives.
- 2) The population explosion.
- 3) Energy crisis.
- 4) Impact of man on environment

- 5) Environmental Conservation
- 6) Development and environment
- 7) Environmental management
- 8) Environmental Pollution—cause and effects.

To make an effective contribution towards improving the environment, local urban bodies should link local problems with television. Certain features and documentaries pertaining to various facets of the environmental problems and their protection should be made a regular feature of the television programmes. As incentives to produce better features and documentaries on these aspects the prizes should be announced for good productions, Figure and features which clearly depict environmental hazards be telecasted between two scheduled programs. Adequate and pertinent matter on problems of environment, environmental degradation, environmental protection and planning must be published by each newspaper and magazine. For this purpose in each issue a certain space be earmarked and that must be utilized for this purpose. The publication of photographs, cartoons, flow diagrams, graphs etc., depicting various aspects of environmental degradation and hazards caused due to them must be published. The newspapers and other periodicals are instructed to highlight the conclusions drawn by the seminars and conferences held on environmental problems. They may be initiated to take up the follow up programs by arousing public awareness. It is through such efforts that the environmental consciousness can be developed amongst people at large, which will help in improving the quality of environment. The unsuccessful role of Indian newspaper in foresting mass interest on crucial environment issues is also because of heterogeneous nature of readers and lack of systematic reporting of authentic environmental information. Moreover masses are much occupied with the basic needs like food, clothing and shelter and for them environmental problems often have a low priority. Documentaries and feature films produced depicting these aspects must be shown to appraise the people of the problems of environment, the extent of damage already done and possible methods of its care. These must depict the duty of each human being towards the protection of the environment. Such features will arouse a sense of responsibility and thus help in protection of the environment. These films shows also provide opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment and to create new patterns of behaviour of individuals, groups and society as a whole towards the environment. Urban Local Bodies should expose the problems of the environment to people of all ages and socio-professional groups. People of all ages and socio-professional groups come to public places while they are going to schools, offices, market, etc. They also have to take long distance travel in connection with their socio-professional activities. Well designed and properly worded posters should be placed by Urban Local Bodies at prominent public places, e.g.; along roads, in city, national and state high ways, bus stands, railway platforms,

parks, picnic spots and the like places. It will serve to introduce to a large population, the awareness and our duties towards achieving a healthier environment for our happier living.

If the values of environment protection are to be incorporated and instilled in the minds of children, it is essential that all ULBs should work closely with the local community and all the educational institutions be also made aware of the community's needs and aspirations. Values are developed over a period of time and for value clarification along with self-awareness of the individual, the supportive climate in which such values can be developed is also essential. What the child learns at home and school has to be extended beyond the four walls of his home and the classroom. Therefore, all the members of the Urban Local Bodies will have to play an important role in promoting awareness about protection of the environment.

The messages of environmental protection must be transmitted to parents as well as to the teachers and community workers like the health worker; the extension officer and the sarpanch, who can become important agents for making the community aware of the need for environment conservation and its protection. Parents can later help to create a supportive climate for developing positive attitudes in the children. Parents should see to it that children do not waste water, food and other natural resources. Local community workers must cooperate to keep the surrounding clean and help in avoiding pollution. In order to help children grow in knowledge, skills, values and attitudes relevant to environmental education and its protection, teachers also have to take up a new role. Apart from the teacher the parents and other community members, the social institutions in the community namely, the churches, temples, mosques, community centers, etc., also have certain role to play. These institutions are places where active participation takes place either through religious or through social functions. During the celebrations of these functions, efforts must be made to see that the community resources are properly used. These functions provide ample scope for developing cooperative living and harmonious adjustments in the community. Therefore, Urban Local Bodies can promote effectively, environmental oriented awareness, both at the local community level as well as at the global level too. Urban Local Bodies can also disseminate information to the local community members, regarding the specific environmental problems and their solutions by distributing small, printed booklets or modules. Dissemination of such information can also be taken up by the various professional agencies and NGOs in an organized way.

Urban local Bodies also help to improve the quality of water and waste water disposal that is sewage coming from factories and various industries. Due to rapid urbanization and industrialization, the local water bodies and lakes are being altered and are slowly decaying. The recent initiatives by Urban Local Bodies have developed alternative models for environmental sustenance of ecosystems whereby it is proposed to integrate the physical development of water-bodies with the communities living around the water-body. Dense building construction and road

construction activity have led to disruption in the natural drainage pattern and reduced amount of surface runoff reaching the water-bodies. With time this results in diminishing of size of the water bodies. The loss of green cover leads to increase in silt reaching the water bodies, reducing their effective depth. Local communities and Local governments over time have tried to find out innovative approaches for development and management of water-bodies. The Ministry of Environment and Forest (MoEF), Government of India, has formulated a National Lake Conservation Plan (NLCP) ¹⁵ since June, 2001. The objective of the scheme is to restore and conserve the urban and semi-urban water bodies and other unique freshwater ecosystems of the country degraded due to waste water discharge through an integrated ecosystem approach. The local urban bodies have responded in an effective way by taking up redevelopment of the water-bodies and the surrounding areas. Most of this development is specifically for regulating by physical development processes so as to redevelop the water-bodies for recreation purpose ignoring the other possible relationships and dependencies that residents may have with the water-body.

Major challenges being faced by Urban Local Bodies for achieving a Sustainable Urban development and Sustainable environment and its conservation as listed in the twelfth schedule of the Constitutional Amendment Act 74th are as following:-

1. Sustainable Urban Planning, including town planning;
2. Regulation of land use and construction of buildings;
3. Sustainable planning for economic and social development;
4. Roads and bridges;
5. Sustainable water supply to local communities and local localities.
6. Promotion of Sustainable public health, sanitation, conservancy, and solid waste disposal and its proper management;
7. Sustainable maintenance fire services available for the city.
8. Sustainable Urban Forestry & protection of the environment, and promotion of sustainable ecological aspects.
9. Sustainable slum improvement and their up-gradation.
10. Sustainable Urban poverty alleviation.
11. Sustainable provision and development of urban amenities and facilities such as parks, gardens, and playgrounds.
12. Sustainable promotion of cultural, educational and aesthetic aspects.
13. Sustainable Development of cattle pounds, prevention of cruelty to animals.
14. Sustainable provision of basic amenities such as street lighting, parking lots, bus-stops and public conveniences.
15. Sustainable regulation and maintenance of slaughterhouses and tanneries.

16. Sustainable maintenance of burials and burial grounds; cremation grounds and electric crematoria.
17. Keeping of vital statistics, including registration of births and deaths.
18. Sustainable maintenance of water-bodies and lakes, ponds and catchment areas of the cities.
19. Sustainable conservation of areas of cultural heritage.
20. Sustainable and optimum utilization of land and other urban infrastructure and related services.
21. Networking with NGOs and private sector for sustainable planning, management and maintenance.

Some of the other challenges which are being faced by Urban Local Bodies are:

1. Population explosion in urban areas.
2. Ineffective planning.
3. Lack of effective public transport system.
4. Urban poverty.
5. Poor status of urban services.
6. Lack of effective leadership by local counselors and municipalities/ wards.

Conclusion

Rapid and unregulated urbanization on a large scale has led to the deterioration and degradation of our environment. The need of the hour is to maintain sustainability in all the dimensions of urban development. Large and small cities must balance between the sound economic and environmental needs of the present and future generations. Urban Local Governments must play an active role in the planning and development of urban areas. These ULBs can actively coordinate and mainstream mitigation, adaptation and resilience into urban planning processes to prepare their cities to lead with climate risks and impacts. Low carbon emission development strategies are one of promoting mitigation, adaptation and resilience at the same time. They are best implemented through an environmentally oriented and integrating planning process. In this present paper I have dealt vehemently with some problems and issues which are being confronting the Urban Local Bodies and local governments in maintaining Sustainable Development, resilience and promoting environmental protection in the small and big cities of Urban India. The present paper also focuses upon the concept and importance of Sustainable Urban Planning and development, and then it discusses the challenges and issues confronting the Urban Local Bodies and local governments. All member of the society are the stakeholders of Sustainable Development. Maintaining occupational, cultural and economic heterogeneity of population is on the whole a major challenge facing Urban Local governments in achieving Sustainable Development. In recent times, cities have become places of wasteful use of non-renewable resources and urban environmental degradation. Apart

from that climate change is posing a challenge to the world and it has the potential to affect the economies, rich and poor, health. Man made pollution of water, air and environment is seriously affecting the nation's climate. Sustainable urban Development and Sustainable city form should take account of all this and try to reduce the ill effects of climate change, depletion of non-renewable resources and degradation of the urban environment.

Decentralization and local urban governance is important for improving the responsiveness of policies and initiatives to the priorities and needs of citizens. Cities should be empowered with sufficient resources and autonomy to meet their responsibilities. Women and men must be equally represented, their needs and priorities equally addressed, in all urban decision-making and resource allocation processes. Inclusive cities should promote every one with equal access to appropriate standards of nutrition, education, employment and livelihood, health, care, shelter, safe drinking water, sanitation and other basic services. It has been estimated by reputed agencies that India loses 1.3% economic growth annually as a result of disputed land settlements, which inhibit supply of capital and credit for urban uses like commercial and industrial. The Urban local bodies should also look into these issues.

The rich people in urban areas have their own transport while the poor people depend upon public transport system as they cannot afford any other means. Urban local bodies should concentrate on improvement and widening of congested roads, by-pass for state highways. They should provide adequate bus stand terminals and other public transport related facilities. The ULBs should also provide adequate infrastructure facilities for pedestrians and cyclists and non motorized transport. The urban Local Bodies should help to alleviate poverty of poor people. These ULBs should upgrade the physical environment of slums and slum dwellers' colonies by providing basic services such as water, sanitation, waste collection, sewage drainage, accessible roads and street lighting etc. in addition to all these, there are problems of finance, state control, and people's participation, etc. which should also be addressed adequately. Thus, to conclude it can be said that urban basic services provided by the local governments as well as by the Central governments are considered necessary for raising the living standards of urban masses. In my view the present research paper has significantly dealt with all the issues and problems pertaining to promoting of Sustainable Development at the local urban level and the promotion of environmental conservation and protection at the local as well as at the national level by the urban local bodies and local governments. Thus, to conclude it could be said, that decentralized, good local urban governance would successfully provide a suitable framework and a healthy platform in promoting an efficient sustainable urban development and a resilient environmental protection.

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