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## Editor's Note

Environmental change is a continual process that has been in operation ever since the earth came into existence. The inept handling of the natural resources such as air, water, soil, minerals etc. has resulted in their overuse, misuse and waste. The incessant increase in population has generated over-exploitation leading to a stress on our resource-base and consequent destruction of our environmental systems and ecosystems on which life and its well being depends. It has also given birth to a variety of problems such as housing shortages, growth of slums and squatter settlements, over crowding and congestion, unhealthy living conditions, break down of infrastructure, lowering of civic standards, air, water and noise pollution etc. These factors have obviously left a deteriorating impact upon environment especially in metropolitan cities.

The provisions for various civic amenities could not keep pace with the growth of urban population, as a result the quality of environment in the cities could not be improved. Lack of proper development and growth of substandard housing and slums have resulted in innumerable environmental problems and the large cities, in particular are victims of such elements of environmental degradation.

In this back-drop, the Regional Centre for Urban and Environmental Studies, University of Lucknow has devoted this Issue of "URBAN PANORMA" specially to urban environment. I am thankful to the learned contributors for writing for this special issue. It is hoped that this academic venture will help understanding complexities of environment in urban areas.

**S.K. Dwivedi**

## From the desk of the Joint Editor

Among the modern world's most dangerous crises is that created by the gross and constantly increasing degradation of the environment. Concern with the protection of natural environment started with the appearance of man on this planet. Generally speaking, environment is everything that surrounds a plant or animal or human being and affects the way it grows. It is an empirically established fact that there exists a vital link between the environment and the life. Man in pursuit of faster and faster economic growth is upsetting the equilibrium and destroying his life's support system. Therefore man's capability to transform his environment can bring benefits of development and also an opportunity to enhance the quality of life.

The urbanisation, modernisation, agricultural practices and substantial increase in population have upset the equilibrium between human activity and natural environment. The irony of the situation is that the more economic and industrial development in the world, more the danger to the environment. The continuous destruction of the vital environment certainly robs us of variety of and beauty in natural environment. The environmental health of a country is, in fact, an indicator of the quality of life of the people. It is time to recall the farsighted Chanakya's observation that "the stability of an empire depends on the stability of its environment."

Urbanisation coupled with increasing industrialization and motorization has severely deteriorated environment in India. India's annual environmental damage cost is on the higher end compared to that of other countries. In most Indian cities with million-plus population, air pollution levels exceed WHO recommended health standards. Largest share of economic and health cost emerges from the growing pollution of water and air. The annual environmental costs as per study in 1995 in India were : Surface water pollution 59%, Urban air pollution 14%, Soil degradation 20%, Rangeland degradation 3%, Tourism 2% and Deforestation 2%. A study carried by World Bank staffers estimated that environmental damages amounted to a total of US \$ 9.7 million per year or 4.5 per cent of the GDP in 1992 (WHO 1997). The situation is found deteriorating everyday.

The environmental imbalance is recognized as a worldwide disaster more formidable than any social, economic and political problem. Development at many places has acquired a sinister dimension—environmental degradation. It threatens forests and farms, human health and aquatic life. Virtually, all deaths have an environmental cause. Ninety per cent of cases of diarrhea and malaria, sixty per cent of airborne respiratory infections and twenty five per cent of cases of cancer can be attributed to environmental origin (WHO, 1997).

Even so, all is not lost and the impending doom, can be averted if reformed approach to resource consumption is adopted. Therefore there is an imperative need of proper resource use and resource management. Environmental management is an inter-disciplinary approach to resource conservation and recycling and it acts as a regulatory force on human wantonness in resource exploitation and resource wasting. The central theme of environmental management is thus the reduction or minimization of the impact of human activities on the physical and ecological environment. It is an endeavour to avoid the overuse, misuse and abuse of the resources in the environment.

It is clear that the country, like others is in desperate need of development in order to meet the basic essentials for life of its teeming millions. All development requires a resource base and takes place in the background of a given physical and socio-economic environment. The development process profoundly alters the environmental fabric with concurrent beneficial and adverse impacts on each sphere of the environment. The strategy has obviously to be aimed at protecting the resource or environment for sustaining development.

In order to manage the environment in a rational manner, it is necessary to assess the potential of the environment for supporting life process and for providing the resources for development. This is vital for the continued progress of mankind. Thus the carrying capacity which implies the ability of the environment to supply the inputs for man, animal and plant, must be evaluated as precisely as possible. Obviously, exploitation of the resources in the environment beyond its capacity would spell depletion and degradation of the environmental niches. Thus, it is clear that there is a limit to the population that can be supported and it would be unwise to grow beyond this limit. Population regulation is a concomitant necessity for environmental management. A very similar important problem is that of management of a city. As it grows beyond a certain optimum size, the cost of providing essential city services becomes positively expensive with consequent deterioration of the quality of life.

It is quality of life that people aspire to which may set the environmental goals. The end objective of environmental management is to achieve these environmental goals. If these environmental elements are eroded and polluted, as present trends show, a stage may be reached when life on earth may become extinct.

India is very lucky from the point of view of natural resources, but the resources are finite. It follows that our natural resources must not be wasted. They should be consumed with great care and conserved as far as possible. At the current stage of development in India, the basic minimum needs of the people are clean water for drinking and domestic use, clean air, health care, education, fuel for cooking and

heating, environmental sanitation, shelter, recreation and security. If not managed properly, providing cost of these basic needs to our masses may have negative environmental impacts.

Nature conservation and environmental protection are of paramount importance for the human being. Hence there is a need for environmental education. The chief objective of environmental education is that individuals and groups should acquire awareness and knowledge, develop attitudes, skill and abilities and participate in solving real-life environmental problems. The perspective for environmental education should be holistic in character, inter-disciplinary and integrated. It should be comprehensive in scope.

Environmental education is concerned with teaching of those aspect of man's physical, mental and social well being that depend on the environment. It embraces various aspects of biological, physical and chemical pollution of water, food, air and soil and flora and fauna. The subjects covered under the environmental education includes water supply, disposal of human and animal excreta, solid and liquid waste disposal, air, water and soil pollution, food, noise and vector control, occupational and radiation hazards, housing, village and town planning, flora and fauna, environmental conservation and control of communicable and non-communicable diseases.

Environmental education is carried out at three main levels - individual, group and general public through mass media of communication. At the individual level every human being is to be made aware of the importance of protecting the environment. The country has, however lost half century and nothing concrete has been done in this direction. Nevertheless we can start it now on the lines of child to adult learning. The environmental education should form part of the school curricula. The studies however reveal that the environmentalists are not attaching sufficient emphasis at the level of school children, who are the future leaders of any country. Such a tendency should not be allowed to continue any more.

At the group level, the grassroot institutions in rural and urban areas, religious groups, community based organizations, voluntary and non-governmental organizations, social clubs etc. may be associated with the environmental education.

The multi-pronged impact of environmental degradation attracted the attention of the World Leaders in the dying decade of the last century. In 2000, the UN Millennium Development Declaration, the largest gathering of World Leaders, adopted to doing all they can do to eradicate poverty, promote human dignity and equality and

achieve peace, democracy and environmental sustainability. Emanating from the Millennium Declaration the Millennium Development Goals were formulated and which bind countries. The March 2002 Monterrey Consensus-reaffirmed sustainable Development and Johannesburg Plan of Implementation, was prepared. The Goal-7 of the Millennium Development Goals attends the problem of environment.

**"Goal-7- Ensure Environmental Sustainability**

**Target 1- Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources**

**Target 2- Halve by 2015, the proportion of people without sustainable access to safe drinking water**

**Target 3- By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers."**

The first decade of the new century this can be termed as the Decade of Environment. We, as an institution cannot remain in isolation. This volume is therefore devoted exclusively to urban environment. The summary of papers included follows.

Dr. V. Gnaneshwar identifies the various functions of urban local bodies which are directly or indirectly impact the urban environment. Many of the functions enumerated in the Twelfth Schedule have correlation with the environment. He analyses the programmes being implemented for improving the environment in urban Andhra Pradesh. Prof. S.K. Singh and Dr. A.K. Singh present the sanitary and related scenario prevalent in urban areas. The authors analyse the problem threadbare and appraise the governmental interventions. They successfully correlate sanitation. Effective management of sanitation, according to them, is the prerequisite for improving urban environment. Sri S.K. Sinha diagnoses the problem of hospital wastes and suggests an action plan for their proper management. He finds the hospital wastes as a major factor worsening the urban environment.

Dr. K. Sreeram highlights the importance of proper waste management for improving urban environment. He presents case studies of many towns and identifies the problems in collection and disposal of waste and suggests remedial measures as well. Sri R.K. Jaiswal identifies the problems related to solid waste management. He describes in detail the experiences of the World Bank aided Urban Development Project in Uttar Pradesh. Sri. Pravin Bhardwaj and Dr. K.K. Upadhyay explain the role of waste management in eco-balancing. They suggest the adoption of eco-friendly management of urban waste. Whole process, they emphasise, should focus on involving

people at household level. Mr. Aurnob Roy discusses at length the environmental problems related to urban wastes. He presents a number of case studies to substantiate his thesis. Sri. Roy establishes a linkage between economic development and environment and highlights the options available before the country. He suggests a number of policy recommendations as well to deal with the environmental problems emerging from the urban wastes.

Ms. Seema Parveen highlights the problems arisen as a result of emergence of slums in urban areas. She feels that slums adversely affect urban environment. Any measure for improving environment, she feels, should include improvement of slums.

Dr. S. Srikrishna and Sri Anil Kumar in their joint effort analyse the causes and effects of environmental pollution, especially air and water pollution. They feel that money is not the only element needed to achieve clean air and water but political action is sine qua non. The involvement of people is also necessary in this attempt. Dr. (Mrs.) J.S. Simlai explains the existing transport system in the Lucknow City and identifies the bottleneck areas which hamper city environment, besides factors impacting social and economic life of people. Dr. Udai Pratap Singh attempts to explore various dimensions of industrial ecology. The cultural new of Industrial ecology is discussed in terms of humanistic vision, equilibrium and holistic development for restoring environmental heritage.

Dr. S.M. Haider Rizvi and Sri Pravin Bhardwaj argue that the economic expansion is bound to result in increase in competition for the use of water. Sri Syed Hasan Jaffer feels that drinking water is an important ingredient of urban environment. He discusses the problems of drinking water supply and sewerage in the city of Lucknow.

Dr. K. P. Subramanian presents glimpses of housing conditions in Chennai City. He feels that quality of housing has its impact on urban environment.

Dr. P. K. Banta deals exhaustively water resources in the hilly state of Himachal Pradesh. The state is situated under the Himalayan ranges and has a number of rivers, lakes, reservoirs which are the main sources of water. Dr. Banta analyses the causes and extent of contamination and pollution of water in these sources. He suggests a number of policy measures to minimise the pollution. Dr. S. Srikrishna traces the causes for and level of air pollution in general and in Tirupati town in particular. He identifies some problem areas in Tirupati town and suggests the remedial measures to minimise the air pollution in this pilgrim centre.



Sri Arun Kumar Sinha discusses at length the problems of solid waste in the country in general and in the cities of Uttar Pradesh in particular. Sri Sinha advocates the application of new public management in managing urban wastes. Prof. B. M. Jani highlights the importance of economics of municipal solid waste. He feels the need of adopting a coordinated effort between industrial houses and municipalities for efficient management of solid wastes. Sri V.S. Singh discusses the environmental problems especially related to air, noise and water pollution in urban areas of U.P. He puts forth some measures to address these problems. Dr. Ravish Kumar highlights the hazardous situations in coal mines in India and explains the environmental impacts and suggests remedies thereof.

Sri O.P.B. Shukla discusses the provisions and details of the Second Earth Summit held at Johannesburg in 2002. He feels that the Summit, a follow-up of the Rio Summit, was mid-appraisal of actions taken globally for saving the earth planet. Dr. S.K. Jaiswal successfully traces the people's concern towards their surroundings i.e. environment in ancient olden days. He highlights the punitive actions taken by Kings in ancient India for destroying the natural flora and fauna. Dr. Umesh Chandra Agarwal talks of importance of dams for generating power and making water available for irrigation and drinking purposes. He the environmental damages due to these dams. Dr. Agarwal suggests to search options for maintaining balance between dams (necessary for development purposes) and ecosystem. Sri Udai Veer Singh Rathore discusses the problems of urban environment in a comprehensive manner. He traces at length the measures adopted for protecting urban environment.

**U. B. Singh**

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**S.K. Dwivedi**

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**S.K. Dwivedi**

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