

*Capacity Building for the Urban Environment:
A Comparative Research, Training and Experience Exchange*

Project Paper No. 15

**Institutional and Development Framework for
Urban Environmental Management in India**

by

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***Capacity Building for the Urban Environment:
A Comparative Research, Training and Experience Exchange***

A project implemented by the

**Institute for Housing and Urban Development Studies (IHS),
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In co-operation with the

**Instituto de Desarrollo Urbano (CIUDAD), Lima
Institut Africain de Gestion Urbaine (IAGU), Dakar
Instituto para la Democracia Local (IPADEL), Lima
Human Settlements Management Institute (HSMI), New Delhi
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and

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Introduction to the Project

Focus and Outline of the Project

Capacity Building for the Urban Environment is a comparative research, training and experience exchange project that was launched in October 1994 with the support of the Dutch government. It provides an inventory and review of the experiences of relevant bilateral and multilateral organisations and of Best Practices in urban environmental management. For the countries of India, Peru and Bolivia, it identifies, communicates and extends the application of Best Practices in environmental management for cities. In May 1995, the project was expanded to include Senegal/West Africa with the support of the Swiss government.

The focus of the project is on learning from experiences in urban environmental management at the city level and on developing strategies for capacity building in order to replicate and scale up the best of these experiences elsewhere. The overall co-ordination of the project is the responsibility of the Institute for Housing and Urban Development Studies in Rotterdam, while co-ordination in the participating countries is the responsibility of the following partner organisations:

- Human Settlements Management Institute (HSMI), New Delhi, India;
- Instituto para la Democracia Local (IPADEL), Lima, Peru;
- Instituto de Desarrollo Urbano (CIUDAD), Lima, Peru (since January 1997);
- Centro de Servicios para el Desarrollo Urbano, (PROA), La Paz, Bolivia, and
- Institut Africain de Gestion Urbaine, (IAGU), Dakar, Senegal.

Project Activities

Support to cities in the form of applied research and development activities in the area of urban environmental management has been, and continues to be, provided by the co-ordinating partner organisations through the following set of activities:

Research

Within the applied research programme undertaken in the project, Best Practices in urban environmental management in Bolivia, India, Peru and, to some extent, Senegal were identified, and their lessons and experiences reviewed. An analysis and review of the identified Best Practices then took place involving a large number of individual research groups and professionals. In a process of on-going monitoring and review, guidance and support were provided by IHS and its partner organisations. The results of both the individual studies of Best Practices and their review are being published in several books and papers in both English and Spanish. These and their publication dates are listed in the *Introduction to the Project Papers*, which follows this note.

Networking

In identifying the research priorities of the project, during the conduct of the research studies, and throughout the review of research findings, a structure was developed and utilised to ensure the participation of all interested and concerned individuals and institutions through a consultative process. Expert group meetings and consultative seminars were organised for this purpose.

Capacity Building Strategies

After the Best Practices research, analysis and review were completed for all countries, outline capacity building strategies were developed for each based on what was learned from these local experiences and practices. These strategies were developed through a broad-based consultation process involving a large number of research institutions, individual professionals and academics, city representatives, NGOs and local representatives. They are currently being modified based on the outcome and findings of Habitat II, which was held in Istanbul in June 1996, and the emphasis has now shifted to applying a number of Best Practices to selected cities.

Best Practices Documentation

Concurrent to and co-ordinated with this project, IHS served as the secretariat of and contributed to the review of the Best Practices that were submitted to the United Nations Centre for Human Settlements (UNCHS) for the *Global Best Practice Initiative for Improving the Living Environment* in preparation for Habitat II. HSMI, PROA, IAGU and IPADEL were also involved and contributed to the national preparatory processes that took place in their own countries. An overview of the Best Practice submissions to UNCHS, as well as summaries of the additional case studies received by IHS, are being made available on the Internet through the IHS Home Page.

Databases

Two databases are also under preparation: an institutional database and a literature database. The institutional database is being developed in co-operation with the International Institute for Environment and Development (IIED) in London. It contains entries on relevant organisations, some of which are documented in extensive profiles, while others are included as shorter reference information entries. IHS is developing the second database, which provides references in the literature on experiences with urban environmental management.

Rotterdam Seminar

The Rotterdam Seminar, which took place in May 1996 during the two weeks preceding Habitat II, brought together all principal researchers, as well as city representatives and other professionals involved in the project for a period of intensive discussions. The seminar resulted in a document that provided a comparative analysis of practices and experiences in the field of urban environmental management. This analysis included the project process and network building, governance, job creation and poverty alleviation and gender. This was published as a book in February 1997 and is listed later in the *Introduction to the Project Papers*. The Rotterdam seminar also discussed *city-level capacity building strategies* for the cities of Calcutta, India; Ilo, Peru; Santa Cruz, Bolivia and Dakar, Senegal. Experiences in *urban environmental management* were reviewed for the cities of Tilburg, The Netherlands and Nairobi, Kenya.

Habitat II

At Habitat II the project was presented in the Special Meeting on Implementing the Urban Environment, organised by UNEP and UNCHS, as well as in other fora.

Capacity Building Strategies for Peru, Bolivia, India and Senegal

The outline capacity building strategies which were developed in preparation for Habitat II (i.e., by CIUDAD, PROA, HSMI and IAGU with the support of IHS). They are being modified for implementation, which is expected to begin late in 1997.

Outline Training Program for Local Officials, CBO Workers, and other Partners for Peru, Bolivia and India

These training materials are to be developed over the next few months and will comprise curricula for short courses related to the most directly applicable Best Practices identified for each country in view of its national strategy for capacity building in urban environmental management.

The Development of a Medium-Term Capacity Building Strategy for Senegal and West Africa

This activity is in progress and addresses the building of individual and institutional capacities at the local level for urban environmental management in both Senegal and throughout West Africa.

Ed Frank, Project Manager

Rotterdam, February 1997

Introduction to the Project Papers

A number of publications have appeared under the Capacity Building for the Urban Environment project. These are listed below and can be ordered from IHS or its partner organisations respectively:

- *Capacity Building for the Urban Environment*, edited by David J. Edelman and Harry Mengers, summarises the research findings of the project and the conclusions of the Rotterdam Seminar. It was published by the Institute for Housing and Urban Development Studies (IHS) in Rotterdam in February 1997;
- *Urban Environmental Management: The Indian Experience*, edited by B.N. Singh, Shipa Maitra and Rajiv Sharma, reviews the Indian experience in urban environmental management and presents all the Indian Best Practice of the project in detail. It was published by the Human Settlements Management Institute (HSMI) and (IHS) in New Delhi in May 1996;
- *Problems and Issues in Urban Environmental Management: Experiences of Ten Best Practices*, also edited by B.N. Singh, Shipa Maitra and Rajiv Sharma reports on the Indian Best Practices of the project in an abridged form. It was published by HSMI and IHS in New Delhi in May 1996, and
- *Ciudades para la Vida: Experiencias exitosas y propuestas para la acción*, edited by Liliana Miranda Sara, presents the Best Practices and outline capacity building strategies for Peru and Bolivia for a Spanish speaking audience. It was published as Volume 6 in the Urban Management Series of the joint UNCHS/UNDP/World Bank Urban Management Programme in Quito in May 1996.

The objective of this series of *Project Papers*, then, is to bring to an English speaking, audience the results of the project research in Peru and Bolivia appearing in the Miranda book. In addition, the Indian research, while documented in English in the second and fourth references listed above, has not appeared as complete, individual studies. Consequently, a selection of these will also be chosen for this series. Finally, the first reference in the above list covers aspects of the research undertaken in all four countries of the project.

As a result, the selection of work appearing in the *Project Papers* includes the following:

Bolivia

- 'Urban and Environmental Reality Workshops' by Zoila Acebey;
- 'Urban Agriculture in Community Gardens' by Julio Prudencio Böhr, and
- 'Institutional and Development Framework for Urban Environmental Management in Bolivia' edited by Gastón Mejía.

Peru

- 'Defence and Conservation of the Natural Swamp Area Pantanos de Villa, Lima' by Arnold Millet Luna, Eduardo Calvo, Elsie Guerrero Bedoya and Manuel Glave;
- 'Consultation in Urban Environmental Management: The Case of Ilo' by José Luis López Follegatti, Walter Melgar Paz and Doris Balvín Díaz;
- 'Promotion of Employment, Health and the Environment, Lima' by César Zela Fierro and Cecilia Castro Nureña
- 'Environmental Sanitation and Infrastructure: The Case of the Marginal Urban Areas of the Southern Cone of Lima' by Silvia Meléndez Kohatsu, Víctor Carrasco Cortez and Ana Granados Soldevilla, and
- 'Inter-institutional Consultation and Urban Environmental Management in San Marcos Cajamarca' by Marina Irigoyen and Russeles Machuca.

India

- 'Power to the People: The Local Government Context' by the Times Research Foundation;
- 'Carrying Capacity Based Regional Planning' by the National Institute of Urban Affairs;
- 'NGOs/Civic Societies and Urban Environmental Advocacy' by Development Associates;
- 'Integrated Low-Cost Sanitation: Indian Experience' by Sulabh International Institute of Technical Research and Training;
- 'City-Wide "Best Practices" in Solid Waste Management in Collection, Transportation and Disposal' by HSMI/WMC of UIFW;
- 'Environmental and Health Improvement in Jajmau Area, Kanpur: Lessons and Experiences for Wider Replication' by Ministry of Environment and Forests;
- 'An Approach to Pollution Prevention in Electroplating Sector' by Development Alternatives;
- 'Integrated Study on Wetlands Conservation and Urban Growth: A Case of Calcutta's Wetlands' by Institute of Wetlands Management and Ecological Design;
- 'Sustainable Urban Development: A Case of Navi Mumbai (New Bombay)' by City & Industrial Development Corporation;
- 'Community Based Sanitation and Environmental Improvement Programme: Experiences of Indore, Baroda and Ahmedabad' by Shri Himanshu Parikh, and
- 'Institutional and Development Framework for Urban Environmental Management in India' by HSMI.

It should be emphasised here that the nineteen *Project Papers* in this series reflect the views of their authors only and have been edited to varying degrees. Initial English language editing was done by, among others, B.N. Singh, S. Maitra and R. Sharma for India and by D.J. Edelman for Peru and Bolivia. In fairness to both the authors and the publishers, they should, therefore, be characterised as working papers rather than full academic papers.

David J. Edelman, Series Editor
Rotterdam, February 1997

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SECTION 1.

Background

"The means by which we live have out-distanced the ends for which we live. Our scientific power has out-turned our spiritual power. We have guided missiles and misguided men". Martin Luther King, Jr.

Every year about 14 million children under the age of five in the developing countries die of hunger and infection while millions become crippled. The major causes of death are air and water borne diseases - respiratory infections and diarrhoea. Nearly two-thirds of children under the age of five have no clean water. Children, especially infants, are most sensitive to the environment and most vulnerable to environmental degradation.

India has one of the world's largest child populations, 315.4 million in the age group of zero to four. About 2,600 children here die every day due to lack of supportive environment. In no other country as many die young or become disabled every year, as in India.

To a large extent, this situation can be attributed to encouraging industrial and urban development without being concerned about environment. At present, India has the ninth largest industrial work force, whereas 70 percent of the available water is polluted, according to an estimate made by the National Environmental Engineering Research Institute. It is also estimated that water borne diseases have caused loss of over 73 million working days in India during last twenty years. (Indian Environment Directory, ed. Dr. Rashmi Mayur). Mahatma Gandhi warned six decades ago, "god forbid that India should ever take to industrialism after the manner of the West. The economic imperialism of a single, tiny kingdom is today keeping the world in chains. If an entire nation of 300 millions took to similar economic exploitation, it would strip the world bare like locusts" (Harijan, Vol 20, No.12, 1928).

a. Past Heritage

Environmental concern in India is as old as its civilization. Public health and sanitation problems were attended in details during Indus Valley Civilization. Existence of baths, covered drains and draining of waste water indicated high sense of sanitation. As this civilization vanished, the era of urban planning was over for a long time. The most detailed policy and provisions regarding environment can be found in Kautilya's¹ Arthashastra² written between 321 to 300 B.C. during the reign of Chandragupta Maurya. Most of those provisions are in Book Two (Arthashastra is divided into 14 books) though some shlokas may be found elsewhere. These provisions, in brief, are:

¹ The most important statesman in Chandragupta Maurya's court.

² The Book on Economic Laws.

- a) **State to maintain forests:** The ruler shall not only protect produce-forests, elephant-forests, but also set up new ones.
- b) **Cutting and selling of trees:** For cutting the tender sprouts of trees in the city parks that bear flowers or fruits or yield shade, the fine shall be six panas,³ for cutting small branches twelve panas; for cutting stout branches, twenty four panas; for destroying trunks, the fine shall be the first amercement; for uprooting the tree, the middlemost amercement.
- c) **Damaging forests:** The officer of forest-produce shall cause forest produce to be brought in by guards in the produce-forests. He shall fix adequate fines and compensations to be levied on those who cause any damage to productive forests except in calamities.
- d) **Forest Reserves for Wild animals:** On the borders of the Kingdom or in any other suitable locality, animal forests shall be established where all animals are welcomed as guests and given full protection.
- e) **Protection to wild life:** The superintendent of slaughter-house shall punish with the highest amercement, a person for entrapping, killing or injuring deer, bison, birds or fish which are declared to be under state protection or who are kept in reserved parks; the middle amercement on householders for these offenses in reserved park enclosures. For entrapping, killing or injuring fish and birds whose killing is forbidden, he shall impose a fine of twenty-six panas and three quarters, for entrapping deer and beasts, double that. One-sixth of live animals and birds shall be let off in forests under state's protection. Sea-fishes and also other birds and dears shall be protected from all dangers of injury; for transgression of this rule, the fine shall be the first amercement. (Gupta: Kautilyan Jurisprudence, 1987).

Twenty two centuries ago the Emperor Ashoka again drew attention to the importance of environmental aspect, through emphasis on conservation of forests and wild life. He defined a King's duty as not merely to protect citizens and punish wrong doers but also to preserve animal life and forest trees. He forbade the killings of a large number of species of animals for sport or food, foreshadowing some of the concerns of present world. His message was carved on rocks and iron pillars throughout India reminding "Cocks are not to be caponized. Husks containing living beings (insects) are not to be burnt. Forests are not to be burnt, either uselessly or for killing (animals)".

b. The Present Concern

India at present owns 16 percent of the world's population and only 2.4 percent of its land area, creating continuous pressure on the demand for natural resources. An average Indian consumes a much lower quantum of resources than a person in the developed world. To a large extent, the lower per-capital consumption is due to poverty.

³ Unit of currency.

The then Prime Minister of India⁴ and the only visiting head of government to attend the UN Conference on the Human Environment in Stockholm in 1972 emphasized that the removal of poverty is an integral part of the goal of an environmental strategy for the world - "the environment cannot be improved in conditions of poverty. Nor can poverty be eradicated without the use of science and technology".

It is towards this goal of removal of poverty that several efforts are under way in India. These are environmental initiatives - not merely of government at various levels, but of people of other non-government organizations as well.

A challenge before a large country like India is to find the right blend between centralized and decentralized decision-making and between micro-level planning and macro-level planning. Evolving methods for the participation of local people in the management of common poverty alleviating resources is a major challenge for natural resource management.

c. The Urban Expansion

Environmental problems take a different shape in the urban context. India, one of the least urban countries (27% of total population living in urban areas), is also a country with one of the largest urban populations (217 million by 1991 census)., Nearly two-thirds of the urban population is concentrated in 317 cities of over 1,00,000 population, of which half is in 23 metropolitan areas with populations exceeding one million. The four largest cities - Bombay, Calcutta, Delhi and Madras - among them account for one-sixth of total urban population. Greater Bombay with a population of 12.57 million, and Calcutta with 10.86 million are among the largest metropolitan areas in the world. Large cities growth is a common feature among the States. Even in the States like Bihar, Orissa or Uttar Pradesh where level of urbanization is lower than the national level, the population growth in class I towns has been higher than the growth of urban population for the States as a whole.

While over the past four decades the population of India has more than doubled, the urban population has more than quadrupled. The growth has come as much from net immigration as from natural increase (about 40 percent each), with the balance due to reclassification and inclusion of new towns.

The UN World Population Prospects projects Indian population at 1.22 billion by 2025. This projection is based on a continuous decline in overall rate of growth of population. But in absolute number, rural population is expected to decline by 26 million and urban population is expected to increase from 231 million to 659 million. Table I shows the population growth-rate in Urban India during 1951-91.

⁴ Mrs. Indira Gandhi

TABLE - I
Growth-Rate of Population in Urban India

Census Year	No. of Towns/Urban Agglomerations	Decennial Growth Rate		
		Total	Rural	Urban
1951	2,843	13.31	8.79	41.42
1961	2,365	21.64	20.64	26.41
1971	2,590	24.80	21.86	38.23
1981	3,378	24.66	19.32	46.14
1991	3,768	23.56	19.71	36.19

Source: Census of India, 1991.

Migration will continue to be a major factor of urban growth in the decades to come. This is corroborated by the changing employment scenario. The contribution of primary sector in the State Domestic Product is steadily going down during the last three decades, (from 45% in the 1950's to 35% in 1992-93), while that of secondary sector (from 34% to 43%) are increasing.

This decline in contribution of the primary sector to the economy is however, not matched by the decline in work force. The increase in rural work force through natural increase are not being sufficiently absorbed in the primary sector. In some states like Punjab, Haryana, Karnataka, shift of labour force in non-agricultural occupations have led to increase in per-capita agricultural productivity. But in other states disguised unemployment has resulted in low income for the work force, causing poverty-pushed migration to the urban areas.

On the other hand, contribution of the urban sector in the Indian economy have been more than double during 1951-91 and is expected to be 60% by the turn of the century. Consequently, growth of employment in the urban areas has been much higher (38%) than the corresponding rate (26%) for the country. But even this is inadequate to accommodate the increasing labour force in the urban sector. Lack of employment opportunities in urban area manifests in substituting rural poverty for urban poverty with challenging implications for urban environment.

d. Urban Environment

The problems of urban environment have been described by the National Commission on Urbanization (1988), with a note of despair, "these urban centers have also generated the most brutal and inhuman living conditions, with large sections of the citizens living in squatter settlements. The over-crowding in the slums and the desperate lack of water and sanitation lead not only to severe health problems but to abject degradation of human life. In the decades to come, who knows how much political tension and physical violence will be triggered off by the flagrant display of wealth which co-exists with the raising expectations of the poor and with the appalling conditions of congestion and pollution which form their environment?"

The highest percentage of people living in slum areas is in the million plus cities. In many of them, approximately half of the city population lives in slums. The growth rate of slum population, largely through continuing immigration, is significantly faster than that of other segments of the urban population.

SECTION 2. Major Environmental Issues in Urban India

Major environmental problems in Urban India may be described as the culmination of two contradictory forces of economic development, i.e. the spread of industrialization and the spread of poverty in urban settlements, specially in large cities. Uncontrolled expansion of these two forces works towards erosion of economic and physical resource-base of the city. It results in polluting the vital inputs like land, water and air as well as creating shortage of urban infrastructure and consequent deterioration in the quality of life.

a. Industrialization

In the beginning, industries came up mainly in proximity to the market as well as the raw materials. Cotton textile factories had come up in large numbers in and around Bombay and Ahmedabad, while jute industry and engineering were prominent near the river Ganga in Calcutta and its surroundings. A number of coal mines and steel plants came up in Bihar -West Bengal border while sugar factories and distilleries were concentrated in small and medium towns of northern and western Uttar Pradesh.

The Five Year Plans in the beginning, embarked on substantial industrialization and infrastructural development. A large number of industries developed around the metro cities of Bombay, Calcutta, Delhi, Madras which went beyond the extended municipal limits. A series of new industrial towns were developed around fertilizer plants. The Government policy regarding industrial location aimed at decongestion around the metro cities by denying entry for medium and large scale industries in these areas. State Governments offered several incentives to the industries to be set up in Backward Districts. This policy prevented large industries being set up within the administrative boundaries of the core cities, but the fringes and neighboring areas became industrialized taking advantage of the agglomeration economies in the city. In some cases, the tax and other financial incentives under the Backward District scheme were available in the metropolitan fringes also.

Extensive programme of developing Industrial Parks and Industrial Estates were taken up with some common facilities. Many of these were located within the existing urban areas and their fringes, resulting invariably in the expansion of the urban areas. Taking advantage of built-in infrastructural facilities in certain areas, small scale industries grew up in clusters. The cluster of tanneries in Kanpur, textile processing and printing industries in Pali, electroplating industries in Delhi are some such examples.

The concentration of industries in general resulted in concentration of pollution. The discharge of tannery wastes into the municipal drains and sewers, with their high sodium and chrome content, has made waste water treatment more difficult. In some parts of Tamilnadu, the river water as well as the ground water have become so contaminated as to be unfit for irrigation, leave alone drinking. The chemical factories around Baroda as well as Bombay and the foundries in and around Agra have also caused serious air pollution problems. Paper industry is another instance where the small scale units account for 30% of the production but two-thirds of the pollution.¹ Most of these industries do not have any treatment or control of the wastes. This problem is particularly acute for the small-scale units with inadequate funds and poor

technology adopted.

Toxic and hazardous wastes are often discharged into the municipal drains or dumped in municipal garbage heaps. The disposal of their wastes thus inevitably becomes a task of the Municipal Corporation. However, the municipal authorities do not have the technical knowledge to understand the type of wastes generated by numerous small industries within their boundaries, leave alone the resources needed for the treatment and disposal of such wastes.

In regard to water pollution from industrial wastes, industrial units of sugar, distilleries, fertilizers, man-made fibres, pulp and paper, soap and detergents, dye stuff etc. and tanneries have been the principal sources.

Most of the river stretches in the country passing through the cities where such factories are located are heavily polluted. The Ganga near Kanpur, the Yamuna near Delhi, the Sabarmati near Ahmedabad and the Damodar in West Bengal are some striking examples of the highly polluted Indian rivers.

Concentration of industries has also caused land pollution where industrial wastes like fly ash are dumped. This eventually results in leaking and pollution of ground water.

After water and land, the third vital resource to be affected by industrial emission is air. Dust and suspended particulate matters also are dominant factors of air pollution in Indian cities. The thermal power plants and constructive industries in the cities are also major contributors to air pollution.

Pollution from transport vehicles is another major environmental issue in urban areas. The present vehicle production in India is approximately 2.27 millions, the bulk of which are in the metropolitan cities. Delhi adds one motor vehicle every five minutes each day of the year, Bangalore adds one in every seven minutes. The per-capital travel trip rate in India is one of the highest among the developing countries. In the four super metros of India, the travel demand of daily trips is estimated to be around 6 million by the year 2000. The road space in most cities is less than 10-12% of the total land space as against 16-20% advocated by planners. Limited road space, increased travel demand and an increase in the number of vehicles have resulted in severe road congestion in most of the urban areas and aggravated atmospheric pollution. Vehicles contribute about 80% of carbon monoxide pollution, 90% of oxides of nitrogen and 65% of hydrocarbons, causing a damaging effect on human health.

b. Poverty

With almost 30 percent of the urban population living below the poverty line, 30-40% of the population of the metropolitan cities living in slums, 27 percent not having access to safe water, over 60 percent not having access to water-borne sanitation, and with Indian cities having very high levels of air and water pollution, the environment that the rural migrant has to live in for the hope of socio-economic mobility in the urban areas, is as harsh a choice between environment and development that one can pose. And yet it is made by over 13,500 people each day who move from rural to urban environments and the several million who continue to live

in the highly degraded areas of urban India, because urban poverty is still preferred to rural poverty.

The most pressing challenge of the Indian Urban planners are facing today is providing adequate housing, education, employment and environmentally viable living condition to these undernourished, semi-literate, semi-skilled urban residents who live on pavements, unhygienic slums, illegal squatters colonies and other such forms of degraded and inadequate settlements and struggling to make a living from low-paying and unstable occupations.

The National Commission on Urbanization recognized urban poverty as an independent phenomenon, rather than just a spillover of rural poverty. The dimension of urban poverty needs to be determined by a combination of household income as well as the surrounding environment which is continuously being deteriorated as the gap between supply and demand for urban infrastructure, specially in low-paying area, increases.

The problem is intensified by the shortage of resources to pay for the required infrastructure. The per-capita water consumption is reported to be between 16-23 liters per-day in slum areas in Bangalore, the number of persons per tap varying between 40 to 428 in the same city. According to a DDA study of squatter households, a hut of 2.5x3 metres accommodated about 4 persons.

The 1991 census reveal that Class I and Class II urban centers together contribute more than 70 percent of the urban population of the country. These urban centers together generate 13425.01 million liters waste water per day, where as waste water treatment capacity is less than 19 per cent of the volume.

The principal source of drinking water in urban areas continues to be from surface streams. Grand water usually accounts for about 25% and combination of ground and surface sources less than 10%. In smaller cities, ground water may be a more prominent source. Apart from pollution of surface sources, over-exploitation of ground water is threatening urban water supply in many cases. In Madras for example, over-exploitation has led to saline water intrusion.

Sanitation and Solid Waste Management is the ne major threat to urban environment. About three fourth of the urban population in the country is without adequate sanitation facilities. Sewerage system exist only in 60 out of the 300 Class I cities and there too, the coverage is partial. Of the total waste water generated in most cities, less than half is collected and of what is collected, less than half goes through some form of treatment. Technology development in the area of human waste disposal has been rather limited. The most important development in India till now has been the low cost pour flush toilet module based on twin leach pits. But soil and density conditions do not permit leach pit toilets in several areas. Anaerobic waste water treatment is being introduced for some of the sewage treatment plants under the Ganga Action Plan. In some cases, the generation of bio gas power is being resumed.

Per-capita solid waste generated in smaller Indian cities is 350 to 400 gms. daily and for larger cities it exceeds 500 gm. Of this, 50% is collected on the average. Apart from household wastes, other waste materials derived from the maintenance of streets and drains, animal wastes,

commercial waste particularly from stores and markets, building refuse, hospital refuse etc. not only add to the volume of solid waste but also seriously affect their composition and aggravate resultant health problems.

The composition and collection arrangements in most cities are traditional and labour-intensive. Disposal of solid wastes in Indian cities is mostly through crude dumping over low lying lands and in some cases, by sanitary landfill. Composting is undertaken in a small scale in some cities like Bangalore, Baroda, Calcutta, Delhi, Jaipur, Kanpur but only small per centages of the city garbage are processed.

The major problem of solid waste collection and management in Indian cities is one of organization and management. The urban local bodies, which are primarily responsible for solid waste management have large number of staff but productivity of conservancy organizations is very low.

So, we are faced with the need for accelerating development for alleviation of poverty which is to a great extent, responsible for many environmental problems. At the same time, one should avoid adopting methods with too high environmental cost to be able to sustain. Integrating environmental considerations into development planning is a very different task. India has been very cautious of this and has over the past few decades taken important steps to increase its capacity to handle environmental issues. The initiatives have come equally from the government and the non-government sector.

SECTION 3. The Emerging Response

a. Pre-Independence Period

The British emphasized for maintaining environmental sanitation in certain areas in order to prevent spread of infectious diseases like cholera, plague, jaundice etc. Some legislation came into force for prevention and control of nuisance and pollution of shore waters, fouling and poisoning of forest water and natural water discharge of oil in port areas etc. But general awareness about environment was absent.

b. Post Independence Period

India's development objectives as reflected in the planning process have consistently emphasized the promotion of policies and programmes for economic growth and social welfare through the alleviation of poverty. Investment resources were targeted to ensure the realization of these concerns.

Environmental issues though implicitly, have been an integral part of Indian thought and social processes, as reflected in the Constitution of the Republic of India adopted in 1950. The Directive Principles of State Policy enunciates principles which, though not enforceable by any Court, are nevertheless fundamental in the governance of the country and it is the duty of the State to apply these principles in making laws. The commitment of the State to protect environment and safeguarding of forests and wildlife is reflected in the inclusion of specific provisions as a part of the Directive Principles of State Policy. Further the Constitution provides that it shall be the fundamental duty of every citizen to protect and improve the natural environment, including forests, lakes, rivers and wildlife, and to have compassion for living creatures. Provisions of water supply and sanitation, was however attended to in the government's plans. In 1948-49, the government of India had appointed an Environmental Hygiene Committee, which recommended a comprehensive plan to provide water supply and sanitation facilities for ninety percent of the population. In 1954, the union Health Ministry announced the National Water Supply and Sanitation Programme under health schemes and made special provision to assist the States to implement the programme.

The efforts during this period were mainly focussed towards public health and sanitation, rather than control of pollution. The explicit concern for preserving the quality of life and promoting environment while undertaking the industrialization and other developmental activities began towards the end of the Fourth Plan, after the Stockholm Conference.

c. The Stockholm Conference and After

Environmental protection and the conservation of natural resources emerged as key national priorities in India in the wake of the 1972 Stockholm Conference on Human Environment. A National Committee on Environmental Planning and Coordination (NCEPC) was established to guide the preparations for the Conference. Later, the Committee continued as an apex advisory body in the Department of Science and Technology. Though major national programmes in sanitation, public health, nutrition, water supply etc. were taken up under the

Five Year Plans, 'environment' as an explicit issue was taken up for the first time in the Fourth Plan (1969-74), which observed "Planning for harmonious development is possible only on the basis of a comprehensive appraisal of environmental issues. Such a concern was turned into concrete actions by launching several programmes for enhancing the quality of life and incorporating environmental concerns while assessing economic and technical feasibility of a project during subsequent plans. Between the Stockholm Conference and the Rio Summit, India has been able to develop a stable organizational structure for environment protection in the country. Legislation, policies and programmes also evolved during the same period, geared to the same end. Despite these achievements, there is a felt need to clearly establish priorities in the environment and forest sectors and to design a programme of action for sustainable management of the environment in the country. This need has arisen both on account of the changing economic structure in India and the national consensus for integrating environmental considerations into development programme and projects.

Sustainable development, which has evolved as the goal for human welfare in the aftermath of the 1992 United Nations Conference on Environment and Development, is however, riddled in country-specific programmes of action for channeling investment resources (both domestic and external) into ecologically consistent projects and programmes. People's participation at the grass-root, local and regional levels is recognized as crucial to this process, even if it has not always been possible.

SECTION 4. Major Environmental Policies under the Plans

Government policy in subsequent plans, is stated in the form of statements on Forestry, on Abatement of Pollution, and the comprehensive National Conservation Strategy and Policy Statement on Environment and Development. To implement the Government policy, several statutes have been enforced, namely, the Air (Prevention of Pollution) Act, the Water (Prevention of Pollution) Act, the Wildlife (Protection) Act, 1972, the Forest (conservation) Act, 1980, and the Environment (Protection) Act, 1986. As a result of the amendments in 1991 to the Wildlife (Protection) Act, hunting of all species of wildlife for commerce or for pleasure has been banned.

The Environment (Protection) Act, 1986 sets out the parameters under which the Ministry operates to formulate and carry out environment policy at the national level. Underlying the policy statement is the recognition of the principle that effective management and control of natural resources requires the support and participation of the local people.

The National Forest Policy, 1988, emphasizes the need to restore the ecological balance and the conservation of the country's natural heritage by preserving the remaining natural forest. This objective is sought to be achieved through the prevention of soil erosion and denudation in the catchment areas, the restriction of the growth of desert areas, and the evolution of a system to meet the requirements of fuelwood, fodder, non-wood forest products and small timber of the rural and tribal population. The mandate of the National Wasteland Development Board and the National Afforestation and Eco-development Board is for restoring green cover for ecological security and provisioning of fuel and fodder resources on both non-forest and forest wastelands.

The network of sanctuaries, national parks, biosphere reserves and other protected areas has been extended to cover about 4% of the total land area of the country. The National Wildlife Action Plan lays down a strategy and action programmes for wildlife conservation. Further, the application of the Forest (Conservation) Act, 1980, ensures that the diversion of forest land for non-forest use is subjected to the strictest scrutiny and is regulated in a manner that reduces diversion to the minimum.

The National Conservation Strategy and Policy Statement on Environment and Development, adopted in June 1992, provides the basis for the integration and internalization of environmental considerations in the policies and programmes of different sectors. It also emphasizes sustainable life styles and the proper management and conservation of resources.

The policy statement announced by the Government in 1992 on Abatement of Pollution reiterates the Government's commitment to arrest deterioration of environment. The Statement reflects a shift in focus from problems to implementation of measures with both short-term and long-term considerations. The statement recognizes that pollution particularly affects the poor. The complexities are considerable given the number of industries, organizations and government bodies involved. To achieve the objectives, maximum use is made of a mix of instruments including legislation and regulation fiscal incentives, voluntary agreements, educational programmes and information campaigns.

The Government's National Housing Policy, 1988, the National Water Policy, 1987 and the National Landuse Policy, 1988, recognize the importance of maintaining the ecological balance. The Ministry of Urban Development have approved an Urban Water Supply & Sanitation Programme whose policy recommendations underline the principle of sustainability of water use and investments for development of water resources. The prevalence of such perspectives rooted in the concept of sustainable development in other wings of the Government is important.

The major thrust of the agricultural development programmes is on improving the efficiency in the use of scarce resources, namely, land, water and energy. This can be achieved only through improved productivity in a cost-effective manner, which could increase the welfare of those dependent on land. Higher orders of productivity could result in scientific and economic use of scarce natural resources and thereby reduce degradation. This would also lead to better maintenance of natural resources for sustainable development.

The National Health Programme undertaken in the Eighth Five Year Plan has significant aspects. A Programme of health care delivery based on popular participation with focus on disease prevention and health promotion is envisaged, in order to realize the overall goal of "Health for All" by 2000 A.D.

Concomitant with this strategy is the provision of drinking water and sanitation facilities in all areas including the no source problem villages. The programme for drinking water cannot be successful without complementary efforts to conserve moisture through watershed development, catchment area treatment and integrated schemes for wasteland development including afforestation etc. Another facet of the National Health Programme is the emphasis on traditional systems of preventive medicine which makes it all the more necessary to focus attention on the conservation of fragile and critical ecosystems including forests, mangroves, wetland, coral reefs and mountain ecosystems which have been sites of unique biodiversity and have been supply sources of traditional biomaterial used for medicinal purposes.

The preventive strategy for health which is the third plank of the National Health Programme necessitates tackling urban environmental issues on a war-footing and the remediation and safe disposal of hazardous wastes which are injurious to human health.

Another very important area is the access of women to health care. Traditional health care mechanisms have focused exclusively on maternal care but are not diversifying in recognition of the role of women as providers of health care and health education.

The National Nutrition Policy 1993 emphasizes the need to tackle the problem of nutrition both through direct intervention for specially vulnerable groups as well as through various development policy instruments which will create conditions for improved nutrition, including: expansion of the Integrated Child Development Services Programme to all the rural blocks and urban slums, maternal awareness and growth monitoring, reaching the expectant mothers and adolescent girls, fortification of essential foods, control of micro-nutrient deficiencies in vulnerable groups, improving the purchasing power and the expansion of public distribution system for the poor, health and nutrition education, convergence of health and other inputs, and

community participation.

The National Policy on Education and its programme of action, as revised in 1992, provide a detailed strategy of implementation to achieve Education for All, along with the assignment of responsibilities and financial and organizational support. Its goals constitute the expansion of early child care and development, universalization of elementary education, drastic reduction in illiteracy, provision of opportunities and facilities to maintain, use and upgrade education, creation of facilities to maintain, use and upgrade education, creation of necessary structures and the improvement in the process and content of education. It lays special emphasis on environmental consciousness at all levels by enforcing compulsory education on environment in a gradual way.

The National Plan of Action for Children of 1992 and the National Policy for Children recognise child development as an important step in building up human resources and outlines goals in respect of maternal and child health, nutrition, education, water and sanitation, and children in difficult circumstances. The National Perspective Plan for Women of 1988, followed by the National Commission for Women's Act outline the approach to the development of women in all spheres leading to their empowerment.

Control of pollution at source is the immediate short-term objective adopted by all the State Pollution Control Boards. For this, the industries must know the extent upto which their effluent or emissions must be treated so that they can discharge the treated effluent to receiving environment without significant effect.

The Central Pollution Control Board has initiated evolving industry specific Minimum National Standards (MINAS) as early as in 1977-78. Subsequently, these standards have been notified under the Environmental (Protection) Act, 1986, by the Government of India. Effluent standards for 23 categories of industries and emission standards for 21 categories of industries have been evolved. The State Boards use these guidelines for necessary follow-up action. While no State Board is permitted to relax the MINAS, they may make them more stringent.

The social priorities envisaged in the Eighth Five Year Plan have different implications for environmental; programmes. The Eighth Plan proposes people's involvement in the process of nation building. A decentralized approach to planning has been introduced through a system of Panchayati Raj and Nagar Palika (local self-governments of urban cities/towns) institutions. The recent 73rd and 74th amendments to the Constitution necessitate a systematic effort for developing human resources at the grassroots level in the direction of sustainable development.

The Government's policy to ensure the environment protection while undertaking any developmental activity has made it necessary to introduce the environmental aspects into planning and development.

The new procedure requires appraisal and clearance by the Ministry of Environment and Forests before a project is approved by the Planning Commission. Similarly for any major industrial project requiring license from the Ministry of Industry, the license is to be granted only after the Ministry of Environment has reviewed the project to ensure that suitable provisions for

protecting environment have been made.

The basic objective of Environmental Impact Assessment (EIA) is to identify, predict and evaluate the likely economic, environmental and social impact of developmental activities and for taking the necessary steps as a remedy, as a part of the overall Environmental Management Plan (EMP).

The Ministry of Environment and Forests has prepared a concept paper on a scheme which the Ministry proposes to introduce - labelling products which are environmentally friendly.

The products or constituents which cause the least harm to man and the environment during the various phases of production upto disposal stage may be called environmentally friendly products, for example, CFC - free aerosols, phosphate - free detergents, recycled paper, etc.

It is proposed to award an EFP mark (like the ISI mark) or label to products which are environmentally friendly. The label could be awarded for a short period and reviewed subsequently, it was officially stated. The environmental labelling scheme would authorize companies producing goods which meet certain performance and environmental criteria to label these products as environmentally friendly with an approved mark or label.

If these goods enjoy an increased market share through the positive choices made by consumers, there would be an incentive for more companies to change their process and/or products, to meet their criteria. The labelling scheme would thus serve as a means to help reduce environmental problems by providing people with information while selecting the products and encouraging companies to reduce the environmental impact of the products.

The criteria for awarding the label would focus on the direct impact of the product during use and disposal, energy efficiency, noise reduction, clean manufacturing process, reduced waste generating technologies, etc. The products to be covered and the criteria to be adopted will be suggested by an expert panel, which will be constituted soon. The criteria will then be reviewed by the ministry and notified.

An independent Institution, such as the Bureau of Indian Standards, will administer the scheme, test the products and award the mark of label.

The statement on Industrial Policy announced in July 1991 abolishes industrial licensing for all projects excepting for a short list of industries related to security and strategic concerns, hazardous chemicals and for overriding environmental reasons. The statement also provides that in respect of cities with population of more than one million, industries of a non-polluting nature such as electronics, computer software and printing can be located 25 kms outside the periphery. It adds that a flexible location policy would be adopted in respect of such large cities which require industrial regeneration. Zoning, land use regulations and environmental legislation, according to the statement, will be the main instruments to regulate industrial locations.

SECTION 5. Instruments for Environmental Management in Urban Area

a. Legal Framework:

The first comprehensive legal framework took shape in 1980 with the setting up of a committee chaired by Shri N.D. Tewari to suggest legislative measures and administrative machinery to ensure environmental protection. Prior to this, environmental programmes were dealt with by different Ministries of the Government of India and each pursued its own objectives. There were legislative acts to prevent some area-based or activity-based specific problem without providing a comprehensive umbrella. The major acts having direct or indirect environmental implications are discussed in the end.

The Tewari Committee recommended the establishment of the Department of Environment in the Ministry of Science and Technology. This reflected the importance of environmental conservation in national development. Subsequently, this Department was enlarged as the Ministry of Environment and Forests.

The major environmental acts relevant for urban environmental management are The Water Act (1974), the Air Act (1981) and the Environmental (Protection) Act, 1986 (EPA). Under these acts, the citizen has a statutory right to information regarding government records and data for directly prosecuting the polluter. The Rules under EPA have been modified (March, 1992) for environmental auditing of all the industries which cause water or air pollution or generate solid or hazardous wastes.

The Ministry conducts Environment Impact Assessment (EIA) of major industrial projects before recommending them for license. At present there is no mandatory requirement for conducting EIA, but any project costing Rs.50 million and above needs to get an environmental clearance. The Ministry is contemplating for mandatory EIA.

The following are some of the major acts having environmental implications on urban governance;

1. *The Factories Act, 1948*

Section 12 of this Act requires all factories to make effective arrangements for waste disposal and empowered State Governments to frame rules implementing this directives. In 1987, a new chapter regulating hazardous industrial processes was introduced in this Act. This Chapter aims at increasing plant safety by such measures as increased worker participation in the monitoring of safety measures and stiff penalties like cutting electricity and water supply of the employers for non-compliance with safety norms.

2. *Rivers Board Act, 1956*

Certain states passed special laws to combat with the problem of pollution of their water resources. Firstly, the state of Orissa passed the Orissa River Pollution Prevention Act 1953. Then Maharashtra, one of the India's most industrialized and one of densely populated states,

passed the Maharashtra Prevention of Water Pollution Act, 1969. This Act unlike the Orissa Act extends to rivers as well as water courses, inland water, ocean streams, and tidal waters to such point as the State Government may specify. The Central Government ultimately passed Rivers Boards Act, 1956 for the prevention of pollution of the water of the inter-state rivers.

3. *The Atomic Energy Act, 1962*

To control radio-active pollution in India the Atomic Energy Act 1962 was passed. Regulation of nuclear energy and radio-active substances in India is now governed under this Act. It is the statutory obligation of the Central Government to prevent radiation hazards, guarantee public safety and the safety of workers handling radio-active substances and the safe disposal of radio-active wastes. The Central Government is also required to control the manufacture and transport of radio-active substance and the production and supply of atomic energy and nuclear-generated electricity.

4. *The Insecticides Act, 1968*

The Insecticides Act was passed by the Parliament to implement the recommendation of the Kerala and Madras Food Poisoning Cases enquiry Commission. The Act provided establishment of a Central Insecticides Board to advise the Center and the State on technical aspects of the Act. The manufacture and distribution of insecticides are now regulated through licensing under this Act and violation of which lead to prosecution and penalties.

5. *The Wild Life (Protection) Act, 1972*

Parliament enacted the Wild Life Act 1972 as per resolutions of 11 states under Article 252(1) of the Constitution⁵. The Act provides for establishment of State Wild Life advisory board, regulation for hunting wild animals and birds, developing sanctuaries and national parks and regulations for trade in wild animals, animal products. An amendment to the Act in 1962 introduced provisions permitting the capture and transportation of wild animals for the scientific management of animal populations.

6. *The Water (Prevention and Control) of Pollution Act of 1974*

In 1974, the Parliament came out for the first time with a comprehensive legislation for controlling water pollution by enacting the Water (Prevention and Control of Pollution) Act. The Act was passed with the objective of prevention and control of water pollution and of restoring the wholesomeness of water quality. The Act provides for the constitution of a Central Board for

⁵. Under Article 252(1), the centre can legislate on a State subject if two-thirds of the State Assemblies pass a resolution to that effect. The Forty Second Amendment of the Constitution, 1976 transferred forests and wild life from the State list to the Concurrent list of the Constitution.

the prevention and control of water pollution. The Act also provides for the constitution of State Boards for the prevention and control of water pollution in states.

The statute is aimed to promote cleanliness of streams and wells in different areas of the states. The Board's function includes advise to Central government concerning the prevention and control of water pollution through co-ordination of efforts by State Boards, giving of technical assistance and guidance to states, sponsoring of research and training of persons engaged in the field of water pollution. The Central Board coordinates activities among the states.

The Board controls sewage and industrial effluent discharge by approving, rejecting or conditioning applications for consent to discharge. The State Boards forwards applications to the State Governments on approving sites for new industry. The Act was amended in 1988 to strengthen its implementation provisions. Now, the Board is competent to close a defaulting industrial plant or withdraw its supply of power or water by an administrative order and a citizen's suit provision bolsters the enforcement machinery.

The Act provides for a permit system or consent procedure to prevent and control water pollution. A person must obtain consent from the State Board before establishing any industry operation or process, any treatment and disposal system or any extension or addition to such a system which might result in the discharge of sewage or trade effluent into a stream, well or sewer or on to land.

The State Board may condition its consent by orders that specify the location, constructions and use of the outlet as well as the nature and composition of new discharges. The Act empowers a State Board, upon thirty days notice to a polluter to execute any work required under consent order which has not been executed. The Board may recover the expenses for such work from the polluter.

The Act gives the State Boards the power of entry and inspection to carry out their functions. A State Board may take certain emergency measures if it determines that an accident or other unforeseen event has polluted a water-source. These measures include removing the pollutants, mitigating the damage and assuming orders to the polluters prohibiting effluent discharges.

7. *Urban Land (Ceiling and Regulations) Act, 1976.*

This Act put a certain limit to individual land-holding for residential purposes in urban area. The surplus land is to be acquired by the government for construction of dwelling units for the economically weaker section in order to reduce inequality in urban land-holding. It is designed to check speculations in land, prevent hoarding and deliver to the states all surplus vacant land so that it could be justly and equitably used for city development. However surplus land has not been available to the desired level as there are various exemptions granted under the law. It does not cover vacant lands also. The Government is considering amendments to this Act in order to exercise greater control over this major resource for urban development.

8. *The Water (Prevention and Control of Pollution) Cess Act of 1977.*

The Water Cess Act was passed to augment the resources of the Central and State Water Boards. The Act envisaged incentives for adopting pollution control and authorized government to impose Cess (Tax) for water consumption. The Central Government after deducting the expenses of collection, distribute the amount among Central and State Boards as it deems fit to enforce the Water Act.

9. *The Air (Prevention and Control of Pollution) Act 1981*

Parliament enacted the Air (Prevention and Control of Pollution) Act in 1981. The framework of the Act is almost in the line of Water Act 1974. Under the Air Act, all industries operating within designated air pollution control areas shall have to obtain a permit or 'consent' from the respective State Board. The states are required to prescribe emission standards for industry and automobiles in consultation with the Central Board. While the Water Act is state-wide, the Air Act enables the State Governments to designate particular areas as air pollution controlled areas. These central zones have been mainly in urban areas. The Pollution Control Boards established at the Centre and the States have thus emerged as the main elements of State machinery for environmental management.

The amendments to the Air Act in 1987 has empowered the enforcing agencies to close polluting industries and to stop their electricity or water supply. The penal provision is also structured. Polluters located outside such air pollution control areas cannot be prosecuted by the State Board, but every industrial operator within an air pollution control area must obtain a consent from the State Board.

10. *Environment (Protection) Act 1986*

The Bhopal Gas mass disaster on 3rd December 1984 led the Govt. of India to enact the Environment (Protection) Act 1986 under Article 253 of the Constitution. Its purpose is to implement the decisions of the UN Conference on the Human Settlement (1972) regarding protection and prevention of human environment.

The Act of 1986 is a broad based environment legislation. Environment under Section 2(a) of the Act means and includes water, air, land and the interrelationships among water, air, land and human beings and other living creatures, plants, micro-organizations and property. Section 3(1) of the Act empowers the Centre "to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution". Thus under this Act the Central Government is authorized to develop new national standards for the quality of the environment; to regulate cities of big industries, to prescribe procedure for manufacturing hazards for preventing accidents, and to collect and disseminate information regarding environmental pollution.

The Act is an umbrella legislation designed to provide a framework for Central Government to coordinate the activities of various central and state authorities established under previous laws such as Water Act and Air Act.

The EPA was the first environmental statute to give the Central Government authority to issue direct written orders including orders to close, prohibit or regulate any industry, operation or process or to stop or regulate the supply of essential services.

Other powers granted to the Central Government to ensure compliance with the Act include the power of entry for examination, testing of equipment and other purpose and power to take samples of air, water, soil or any other substance from any place for analysis.

The Act empowers the Central Government to establish standards for the quality of the environment in its various aspects, including maximum allowable concentration of various environmental pollutants for different areas. It also has a citizen's suit provision.

11. *Hazardous Waste and Hazardous Substance Management*

The Hazardous Waste (Management and Handling) Rules issued under the Act, 1989, have introduced a permit system administered by the State Pollution Boards to regulate the handling and disposal of hazardous wastes. The import of hazardous wastes into India for dumping and disposal is prohibited under the Rules.

The State Governments have identified hazardous installations and operations in their States and implemented the notified rules.

In December, 1989, the Environment (Protection) Rules were amended to prescribe ambient air quality standards in respect of noise. These standards lay down the day time and night time limits of noise in industrial, commercial and residential areas as well as in silence zones, i.e. an area upto 100 mt. around hospitals, educational institutes, courts etc. Recently the Government of India has promulgated an amendment in the EPA Rules called the Environment (Protection) Second Amendment Rules, 1992.

According to these Rules, every person carrying on an industry operation or process requiring consent under other environmental Acts, shall submit an environmental auditing report to the concerned State Pollution Control Boards.

The main components of this report are information on quantity of raw material consumed including water per unit of product, total production, quantity of pollutants generation in terms of air and water and quality of hazardous and solid waste generation and their recycling and reuse.

12. *Central Motor Vehicle Rules, 1989*

Under this Rule, the manufacturer of vehicles is compelled to upgrade the technology to the standards. A few amendments, clearly indicating the responsibilities of the occupier,

transporter, driver have been included in the rules. The importer of hazardous chemicals into India, besides disclosing complete production safety information, must also ensure that the transport of the chemicals from the point of entry is in accordance with this Rule.

A further amendment of this Rule specifies that vehicles manufactured after 1st April, 1992 must meet the addition emission standards prescribed for petrol and diesel vehicles.

13. *Public Liability Insurance Act, 1991*

Public Liability Insurance Act, 1991 makes it mandatory to cover insurance for public which may be affected by use, transport of all the hazardous chemical industries. It provides immediate relief to the victim of hazardous accidents. Every person who has control over handling of hazardous substance has to take this insurance policies against liability to give relief to the affected persons. Whoever contravenes any of the provisions of the Act is punishable with imprisonment for a minimum period of one and a half year which may be extended upto 6 years.

14. *The Constitutional (74th Amendment) Act, 1992*

This Act seeks to provide a common framework to Urban Local Bodies and to help in strengthening the functioning of these bodies as effective democratic units of local self government. It addresses several issues of decentralisation, i.e. political, spatial, administrative and financial. It deals with matters related to the functional domain of the municipalities and the consequent financial implications, i.e. political, spatial, administrative and financial. It deals with matters related to the functional domain of the municipalities and the consequent financial implications, the fiscal interrelationship among the three tiers of the government, the new approach for decentralised planning and a new emphasise on local agenda for urban environmental management. It tries to narrow down the gap between expenditure responsibilities and revenue authority of the municipalities. It envisages a much larger concept for planning by including development planning and environmental management in the planning exercise to be performed by the local bodies. It also envisages a role of the people's representatives in having a say in policy matters related to planning.

a. *Penal Provisions*

Several penal provisions are there for violating environmental legislation Violation of EPA is punished with a prison term of upto 5 years or a fine upto Rs.0.1 million or both. The Act imposes an additional fine upto Rs.5000 for each day of continuing violation. If a failure occurs for more than one year, the prison term is extended by two years.

Failures to comply with other Acts are punishable with imprisonment not less than one and half year which may extend upto six years.

Failure to provide information is punishable upto three months' simple imprisonment or fine upto Rs.10,000 or both. For continuing controversy, additional fine of Rs.5000 every day during which such contravention continued is imposed.

Thus from the discussion of development of environmental legislation particularly in the national level it is revealed that particularly during last two decades specific laws on environment protection have been passed by the legislatures of different countries, though the seeds of environmental law can be traced in various laws made more than a century ago. In the International level also the growth is discernable. At present, there is no dearth of environmental legislation but there is need for proper implementation of those legislation.

b. *Fiscal Incentives to Encourage Control and Prevention of Pollution*

The Government of India offers several incentives to ensure that industries are motivated to comply with the various environmental standards prescribed under different Acts and Rules to control and prevent pollution. Some major fiscal incentives are given below.

Exemption from Income Tax: In order to ensure enthusiastic public involvement, particularly of the corporate sector and private individuals, donation given by a tax payer to any association or institution for programmes on conservation of nature and natural resources will be exempt from income tax, Secretary, Ministry of Environment and Forests approves such institutions and associations.

Depreciation allowance: Depreciation allowance at 30% is allowed on devices and systems installed by industrial units for minimising pollution or for conservation of natural resources.

Investment allowance: An investment allowance at the rate of 35% of the actual costs of new machinery or plant expected to assist in the control of pollution and protection of environment is granted; (The Central Government has notified a list of such machinery and plant on which investment allowance is granted).

Exemption from Tax on Capital Gains: The purpose of this incentive is to encourage industries to shift from congested urban areas. Capital gains arising from transfer of buildings or lands used for the purpose of business are exempt from tax if these are used for acquiring land or for constructing buildings for the purpose of business at a new place.

Excise Duty exemption on utilisation of fly ash, phosphogypsum etc.

- Excise duty is exempted on the production of low cost building materials and components
- Excise duty is exempted on the production of building materials using fly ash or phosphogypsum in 25% or more quantities as raw materials.
- Custom duty is exempted on the import of equipment, machinery and capital goods required for the production of building material such as bricks, light weight aggregates, light weight concrete elements etc. Using fly as and phosphogypsum.
- Reduction in excise duty upto 15% is allowed on pore-fab components required for housing.

c. *Institutional Arrangement*

According to the Indian Constitution, urban development and planning is a state subject (Scheduled in the State List) while economic and social planning can be handled jointly by the Centre and the State (Scheduled in the Concurrent List).⁶ The Central Government has no direct role to play either in the management of the city or in the planning of individual settlements. However, there are a number of organizations of the Government of India which deal with the subject of urban planning and management, provide a forum for discussion and consensus and also ensure the flow of funds to the States in matters relating to urban development.

India has an elaborate and expanding regulatory apparatus regarding monitoring and enforcement of air and water pollution. Regarding industrial wastes, the technologies are moving forward rapidly.

However, the problem of urban environment are not limited to industrial pollution alone.

The World Development Report (1993) emphasises "for poor people and poor regions, it is the household environment that causes the greatest risk to health." The management of urban environment is thus closely related to urban governance that runs into various departments of general administration.

National Level

In the Central Government, the Ministry of Environment and Forests is the nodal agency for dealing with air, water and land pollution created by spread of industrialization and other economic activities, while the Ministry of Urbana Affairs and Employment is the apex body regarding environment in urban settlements, which is threatened continuously by lack of basic services specially in economically weaker areas. Other departments of the Central Government, specially the Ministry of Health, Ministry of Education, Ministry of Social Welfare are also equally important towards providing investment in human resources for better urban environment. A brief account of the major actors in the area of urban management is attempted here.

The foundations of the present organizational framework for environmental programmes relating to industrialization in India lie in early 1970s with the establishment of the National Committee of Environmental Planning and Coordination (NCEPC) by Prime Minister Indira Gandhi, almost immediately after the historic Stockholm Conference. The Committee was gradually to evolve into a Department of Environment in 1980 and five years later, into a full-fledged Ministry of Environment and Forests (MOEF) of the Government of India (GOI). The

⁶. The Constitution of India deals with three lists, i.e. the Central list, the State list and the Concurrent list. The Central Government is the legal authority for the items listed under the first, the State Government enacts the items listed under the second while the items under the third is jointly dealt with.

State Governments also followed this example by establishing their own Departments of Environment.

In the beginning of 1980, a Committee was set up under the Chairmanship of Mr. N.D Tewari to recommend legislative and administrative measures to ensure environmental protection. It recommended the creation of a Department of Environment at the Centre. This Department was established in the Ministry of Science and Technology. This Committee further recommended to replace NCEPC by National Committee on Environmental Planning (NCEP) whose function will be mainly advisory.

The Department of Environment was replaced in 1985 by an integrated Department of Environment, Forests and Wildlife which, in the same year has become an independent Ministry.

The Ministry of Environment and Forests, India, has wide ranging responsibilities as the apex body within the Government responsible for the subject of environment, forests and wildlife.

Conservation and preservation of environment are addressed through both legislative measures and specific programmes to improve and upgrade the environment and the forest cover. These activities include survey of flora and fauna as a first step towards conservation of natural resources, afforestation, regeneration of degraded areas, forest conservation, environmental impact assessment, research on environmental education and information sharing. There are also programmes to minimize the impact of pollution in the form of control of emissions, treatment of effluent, etc.

The Water Act, 1974 and the Air Act, 1981 provided the basis for establishing Central Pollution Control Board, as the regulatory wing of the Ministry.

The Central Pollution Control Board (CPCB)⁷ is the apex body at the national level attending to the problem of water pollution and advises the Central Government in the formulation of the policies and plans of action for control of environmental pollution. It also acts as the State Board in the case of some Union Territories and coordinates the activities of the State Boards in the nationwide implementation of pollution control measures and also monitors through its Regional Offices in the East and North-East at Calcutta, in the northwest at Chandigarh, and in the South at Hyderabad.

The States in the North-Central region are looked after by the Central Board's Head Office in New Delhi. A regional office for the Western Zone is being set up.

7. The Air Act (1981) has specified that Central and State air pollution control authority also is to be exercised by the central and state water Boards. These Boards have dropped the term "water" from their title and are now known as State or Central Pollution Control Board.

The Central Pollution Control Board (CPCB) has initiated evolving industry specific Minimum National Standards (MINAS) as early as in 1977-78. At present, it has evolved effluent standards for 23 categories and emission standards for 21 categories of industries. The State Boards use these guidelines for necessary follow-up action. No State Board is permitted to relax the MINAS, it may make them more stringent. These standards have been notified by the Central Government under EPA, 1986 Act.

The Ministry has set up a National Waste Management Council in 1990 to promote waste management in all aspects, particularly waste minimization and waste utilization. It has given financial assistance to seventeen cities for conducting surveys on urban municipal solid waste.

Ministry of Urban Affairs and Employment has recently been renamed and restructured with the establishment of two departments, i.e. the Department of Urban Development and the Department of Poverty Alleviation. The first deals with physical infrastructure in urban areas. The infrastructural programmes assisted by the foreign agencies are also routed through this department. Foreign institutions can make direct contact with the State Governments in these projects after being approved by the Ministry. The major schemes handled by the Department of Urban Development are the Integrated Development of Small and Medium, Towns (IDSMT) Urban Transport, the Mega City Project and several other externally assisted programmes.

The Central Town and Country Planning Organization (TCPO) is the technical unit of the Ministry. The Chief Planner of TCPO is the Chief Technical Adviser of the Government in matters relating to town planning. TCPO monitors the infrastructural development programmes on the basis of reports submitted by the State Governments on behalf of the Ministry.

The Department of Poverty Alleviation is responsible for implementing and coordinating all the current programmes for poverty alleviation in urban area. Neighbourhood Committee and resident volunteers of local area become instrumental in identifying the urban poor eligible for different schemes. The proposals are then routed through the nodal officer of the local body and the District Development Agency before getting finance from the Bank. The Department monitors these schemes through Management Information Service (MIS).

As urban development is a state subject, the Ministry performs one of advisory and coordinating role apart from providing technical assistance for promoting orderly urbanization. The details of the schemes monitored by the Ministry are discussed in subsequent section.

As urban environmental management is a multi-sectoral approach, the activities of other ministries also are worth mentioning.

Ministry of Health has two departments, i.e. the department of Health and the department of Family Welfare. The first deals with medical and public health programmes including drug control and prevention of food adulteration.

The activities supported by the Department of Family Welfare include universal immunization programme, safe motherhood initiatives, community awareness etc.

These programmes are targeted towards achieving some national rather than spatial objectives. The Ministry has recently adopted Urban Revamping Programme where the family welfare centers in urban area will be converted into four types of health posts according to the size of the population. It is operative in cities with more than 20,000 population.

Three departments⁸ of the Ministry of Human Resource Development i.e. the Department of Education, the Department of Culture and the Department of Women and children contribute to capital formation in human resources development.

The revised National Policy on Education for the Eighth Plan has shifted the emphasis from enrollment to enrolment and retention as India has the world's largest number of school dropout children (22% of the global total) and a substantial improvement of primary schools and other supportive services. Some of the schemes are related to slum improvement and poverty eradication programmes. The non-formal education programme is aimed at benefitting working women and children.

The Ministry of Welfare operates special programmes through the state agencies. The target groups are the poor and the deprived. The regional rehabilitation centers assisted by the Ministry train community development workers in rehabilitation techniques. The scheme for the welfare of street children provides central grants to NGOs in metropolitan cities for the care, protection and development of such children.

The Housing and Urban Development Corporation Ltd (HUDCO) is the apex techno-financial organisation with a view to providing loans and technical support to state and city level agencies and other eligible organizations for various types of housing activities and infrastructural development. It sanctions loans on the basis of financial guarantee and prescribed financial norms in accordance to the National Housing Policy. The rate of interest charged and repayment period varies from scheme to scheme.

State Level

Organizational structure is much more elaborate in the states as urban planning and development is essentially a state subject. The State Departments of Town and Country Planning, Environment, Urban Development, Housing, Local Government (Urban), Education, Health, Social Welfare etc. are responsible for managing urban affairs. The secretarial departments are assisted in the field by directorates who are responsible for ensuring that projects undertaken by states are implemented in the field and that the urban local bodies manage their affairs according to law and rules.

Almost all the States and the Union Territories have established environmental boards as recommended by the NCEPC, under terms similar to those of the National Committee. They are chaired by the respective Chief Ministers. An official of the Ministry of Environment is also a

⁸. In total the Ministry has four departments, the last one, the Department of Sports is not included here.

member of the State Boards to provide good liaison between them and the National Committee. Subsequently, these boards have been replaced by the State Government Department of Environment. They coordinate the activities of the Central Ministry in their States. They also coordinate the activities of respective State Pollution Control Boards.

Besides the State Departments, there are several para-statal bodies including development authorities, housing boards, slum clearance boards water and sewerage authorities etc. who operate within city limits but are not answerable to the local bodies. Then there are city based organizations in the metro cities looking after specific services within the city like water supply, transport, electricity etc. Many State Governments have got deeply involved with project preparation, design, construction and delivery of various capital-intensive projects, specially for water-supply and sewerage services.

State Pollution Control Boards are formed to perform functions specified by these Acts. They plan comprehensive pollution abatement programme and advise the State Governments on water and air pollution issues. Legal actions under these two Acts are taken by the respective State Boards. The Central Government provides financial assistance to the State Pollution Control Boards and Department of Environment of the State Governments for strengthening their technical manpower.

Local Level

The actual management of towns and cities vests in local bodies, generally referred to as municipalities. These are the oldest existing organizations for self-government at town level. These bodies are elected, with the deliberative wing being assisted by a permanent executive.

The recent Constitutional Amendment Act attaches new importance to the hitherto sidelined role of local bodies by bringing many important aspects of urban management within the purview of municipal affairs. In the new context, the traditional scope of municipal functions are enlarged so as to include matters of environment management related to energy including matters of environment management related to energy including household energy consumption, industry and transport among others. It has widened the concept for planning than what is covered under the conventional Town and Country Planning Acts of the States. The specifications relating to preparation of plans for economic development and social justice, urban planning including town planning, slum improvement and upgradation and urban poverty alleviation have elevated the planning concept to the level of development planning rather than the land-use planning only. All these functions have been entrusted to the local bodies with the people's representatives having a say in policy matters related to planning.

d. *Major Poverty Alleviation Programmes*

The Task Force on Urban Development (Planning Commission: 1983) had pointed out that all formal housing schemes of the government are way beyond the means of the Economically weaker Sections and Low Income Groups...and there is insufficient evidence...that the urban poor have benefitted from these. Also, the resource requirement for such housing schemes for the poor with programmes for providing only water supply, sanitation and a few

other facilities in the eighties. These programmes sought to cover a substantially larger segment of the uncovered population than the formal schemes on housing. This policy shift brought the costs of the facilities within the affordable limits of the poor households, a condition that was considered necessary for cost recovery and long term sustenance of the programme.

The major poverty alleviation programmes in urban areas, consist of physical and social development programmes as well as direct assistance to employment generation. Such programmes, sponsored by the Central Government and currently being implemented in the country are as follows:

1. Environmental Improvement of Urban Slums (EIUS)
2. Urban Basic Services for the Poor (UBSP)
3. Integrated Development for Small and Medium Towns (IDSMT)
4. Low Cost Sanitation Program (LCS)
5. Shelter and Sanitation for the Pavement Dwellers
6. Building Centre Scheme
7. Urbana Transport Project
8. Mega City Project
9. Accelerated Urban Water Supply Programme
10. Nehru Rojgar Yojana
11. Prime Minister's Poverty Eradication Scheme
12. Prime Minister's Rojgar Yojana

1. *Environmental Improvement of Urban Slums (EIUS):*

EIUS, was launched as a major programme of the central government in 1972, designed solely for physical improvement of slums through provision of basic facilities. It was made an integral part of the Minimum Needs Programme (MNP) in 1974 and transferred to the state sector. A scheme of central grants was also introduced to supplement the state government funds, which continued upto 1985.⁹

The Planning Commission specifies the target population to be covered under the MNP in consultation with state governments. The latter selects the slums as per the guidelines issued by the central government. Following these, slums with two-thirds of the families earning less than certain income are selected for improvement. Generally, the scheme is restricted to notified slums located on government lands where there is no possibility of undertaking a slum clearance or redevelopment scheme in the next 15 years in case of pucca built-up tenements and 10 years for hutment type tenements. This ensures the period of benefit of the project to be long enough to justify the capital expenditures. However, slums on private lands have also been brought under the programme in a few cities, where their number is large. In the Eighth Plan, the scheme is being taken up along with UBSDP, NRY and the Scheme of Liberation of Scavengers so that

⁹. For a detailed discussion on these and earlier programmes, see Kundu (1993)

these together form a coordinated whole.¹⁰

2. *Urban Basic Services (UBS, now UBSP)*

The scheme was introduced in the Seventh Plan as an extension of Urban Community Development programme existing earlier. The focus of the scheme is on women and children. However, the entire project population benefits from it owing to the adoption of an integrated approach. The most important feature of the project is its community based approach, involving physical and financial participation of the beneficiaries. The scheme is taken up in slum pockets within specific towns/cities, selected by the state governments in consultation with the central government.

Under the scheme, the residents of identified poor localities prepare micro development plans in consultation with the Community Organizers and present them to the Neighborhood Development Committees. These Micro Plans are integrated into the UBS scheme at the town level with the help of local bodies. These are, then, co-ordinated at the state level and monitored at the National level. The finances are made available in proportion to the size of the slum population in each town.

The scheme has been changed to Urban Basic Services For Poor (UBSP) in the Eighth Plan. With this, greater emphasis is being placed on fostering neighborhood development committees in slums for ensuring effective participation of slum dwellers in the activities under the scheme. At present, the scheme is being implemented along with EIUS, NRY and LCS (to be described subsequently) under one Urban Poverty Alleviation (UPA) programmes so that these together form a "co-ordinated whole".

The pattern of funding under UBSP has undergone certain changes. Previously funding for UBS was shared by the central government, state government and UNICEF in the ratio of 20:40:40. Now, UNICEF has, by and large, withdrawn its support except for providing funds for training the UBSP officials. The cost for the programme now is shared between the central and the state government on a 60:40 basis.

The Central funds for the UBSP are to be allocated to State Urban Development Agencies (SUDA) or UPA Cells, based on the latest estimates of urban poverty from the Planning Commission. Of the total fund available at the state level, including the state's share, 80 per cent should be allocated to the towns and cities on the basis of slum population covered or resources utilised in the previous year or expected coverage during the current year. At the municipal level too, all the resources available under UBSP, NRY, EIUS and other development schemes as well as the contribution from the community would go to the UPA Fund, including the specific allocations for the targeted groups under special component plan.

¹⁰ The per-capita expenditure under the programme was raised to Rs.250 in 1984, and further to Rs.300 in 1985. In the Eighth Plan, the figure has been revised to Rs.525 (all at current prices).

3. *Integrated Development of Small and Medium Towns (IDSMT)*

The programme was mooted during the Sixth Plan (in 1979-80) to improve the quality of economic infrastructure and public utilities in a select set of towns to enable them to act, as growth or service centers for their rural hinterland and thereby reduce the migration towards the metropolises or a few other large cities. Although the programme was launched basically for restructuring the hierarchy of urban settlements by promoting middle order towns, this was to be achieved partly by providing basic services to poor and improving their economic conditions so that their migration towards metro cities is arrested. It may, thus, be seen that although IDSMT is not specifically focussed on the provision of basic amenities in the slums or other low income colonies, this figures as its important components.

Initially, the scope of the scheme was restricted to towns with populations below one hundred thousand in the 1971 Census. It has been decided in the Eighth Plan to include cities with population upto five hundred thousand as per the Census of 1991. The towns have been placed under five categories, as indicated below:

Category of Towns	Population
A	Less than 20,000
B	20,000 – 50,000
C	50,000 – 1,00,000
D	1,00,000 – 3,00,000
E	3,00,000 – 5,00,000

The activities under the programme are placed in two categories, namely, development of economic infrastructure (i.e. acquisition of land for commercial and residential purposes, improvement in the traffic and transportation system, sites and services scheme etc.) that will generate employment and income in the town and low cost sanitation which has been brought under it in the year 1983-84. The second category includes activities for improving physical environment in the towns that generally are not remunerative. Upgradation of slums, low cost schemes of water supply, sewerage, drainage, sanitation, preventive medical facilities and health care are covered under it.

The central support to the IDSMT programme came in the form of a soft loan, initially carrying an interest rate of 5.5 per cent which has now been raised to more than 10.0 per cent. to be repaid in 25 years. Repayment starts five years after the receipt of the loan although interest has to be paid for the intervening period as well. The scheme has been revised under the Eighth Plan as per the recommendations of the National Commission on Urbanization strategy prepared by the state governments. Preference is given to towns identified as Generators of Economic Momentum (GEMs) by the NCU. The thrust of the programme, too, has under gone a significant change in the Eighth Plan. Instead of only trying to remove the infrastructural deficiencies in the selected towns, the programme would now dovetail employment generation with infrastructural development. This is being done to make the programme economically viable so that its dependence on government funds can be reduced and the institutional borrowing can be increased. The Plan stipulates that the budgetary provisions should be used mainly for the provision of seed capital to cooperatives and local bodies and for critical infrastructure.

Moreover, only those towns where elections to the local bodies are over, will be considered for assistance.

The central government assistance was half of the total project cost, sanctioned as soft loan until the Seventh Plan. The rest was to be borne by the state governments. As per the modified guidelines in the Eighth Plan, the central government's share vis a vis that of the state government, has increased from 50 to 60 per cent. Much of the financing would, however, be coming from institutional sources, and here, the major responsibility of resource mobilisation and loan repayment is that of the state governments. The modified scheme also excludes the payment for land acquisition from the central government's share.¹¹ This, and the stipulation that land must be made available within a year of approval, increase the responsibility of the state governments tremendously. This may adversely affect the programme, particularly in the less developed states. The revised financing pattern is shown in Table II.

TABLE II
Financing Pattern under IDSMT in the Eighth Plan

Category of Towns	Max. Project Cost (Rs. Million)	Central Grant(%)	States Share (%)	HUDCO\ Others (%)
A	10	48	32	20
B	20	45	30	25
C	35	43	28	29
D	55	38	25	36
E	75	36	24	40

Source: IDSMT, Revised Guidelines - 1995, Ministry of Urban Affairs and Employment, Government of India.

It may be noted that the share of the central government works out as 60 per cent of the total budgetary support in case of towns in category A and B only in the Eighth Plan. For others, it is less. Also, institutional finance emerges as the most important component in the funding of the schemes. Interestingly, the share of this finance coming from HUDCO and other agencies increases with the size of the town. One would, thus, observe that the larger cities that are able to attract larger institutional finance can spend more in per capita terms under the scheme.

¹¹. Besides, it provides a grant to the local bodies for meeting the cost of preparation of project reports upto two per cent of the project cost or rupees two hundred thousand whichever is less.

4. *Low Cost Sanitation Programme (LCS):*

The goal of providing sanitation facilities to eighty per cent of urban population was fixed in the early eighties with the announcement of the UN Decidual Programme for Water Supply and Sanitation. In view of the fact that provision of sewerage system in the whole of country was impossible, given the limited resources, low cost alternatives were encouraged by the government. Technical assistance was provided by the United Nations Development Programme (UNDP). HUDCO loans were available for low cost sanitation facilities in old city areas and slums. For individual toilets, loan was available upto 50 per cent of the cost at 6 per cent rate of interest repayable in twelve years. Urban water supply and sanitation, however, was kept in the state sector, with no central funds coming directly for this purpose in the Seventh Plan.

A centrally sponsored scheme was launched in 1980-81 with the objective of elimination of manual scavenging through conversion of dry latrines initially through the Ministry of Home Affairs and subsequently through the Ministry of Welfare. Since 1989-90, it is being administered by the Ministry of Urban Affairs and Employment. Assistance in the form of loan and subsidy were available for the purpose covering all urban areas with population below five hundred thousand. In the Eighth Plan, the scheme has been strengthened. The pattern of financing has, however, changed. These are to be funded by a mix of central subsidy and loan, routed through HUDCO. The subsidy component varies depending on the income of the beneficiary household, as per the details given in Table III.

TABLE III

Financing Pattern under LCS in the Eighth Plan

Beneficiary Category	Monthly Income	Loan	Subsidy	Beneficiary Contribution
EWS	> Rs.1250	50%	45%	5%
LIG	Rs.1251-2650	60%	25%	15%
MIG	Rs.2651-4450	75%	Nil	25%
HIG	> Rs.4450	75%	Nil	25%

Source: Data from HUDCO sources.

The maximum repayment period for the HUDCO loan is twelve years and the rate of interest for all the categories have been made uniform viz. 10.0 per cent. There is thus no bias in favour of the poor in terms of interest rate.

The Eighth Plan envisages cost recovery to be built into the municipal finance system. The metropolitan and other large cities are expected to make capital investment in water supply and sanitation facilities, besides cover in their operational costs. Also, most of the development

projects are to be undertaken through institutional finance rather than budgetary support.

The plan is to convert all dry latrines by the end of March 1997, and simultaneously take steps to rehabilitate the scavengers rendered unemployed thereby. The municipal by-laws have been amended in many States to require all new constructions to be approved only with a sanitary latrine, and to require existing dry latrines to be converted. In case of slums, the emphasis has to be on individual or shared latrines as the local conditions and finances permit. There has been a significant involvement of NGO's in the supervision of this project in a number of States like Tamil Nadu, Andhra Pradesh and Gujarat. The execution of the programme on a State-wide basis has been entrusted to the Sulabh International by a number of States. In Gujarat, the State Government has entrusted to the Gandhi Safai Vidyalaya the scheme of getting the sanitary latrines provided in different urban and rural areas through the co-ordination of the efforts of local NGO's. A similar model is being tried out for areas outside the ODA project in Hyderabad, under the World Bank project. As the scheme is limited to cities with a population of 5 lakhs, it is not possible to cover higher order cities unless the population ceiling is relaxed, or the programme is included in the ongoing projects for water supply and sewerage as in Hyderabad.

5. *Shelter and Sanitation Programme for Footpath Dwellers in Urban Area:*

This scheme was introduced in 1988-89. It tries to cover urban areas including metropolitan cities, having a large number of shelterless population. The Central government provides a small subsidy of Rs.1,000 per beneficiary through HUDCO. In addition, HUDCO provides loans upto Rs.4000. In case the per capita cost for a night shelter exceeds Rs.4000/-, HUDCO can provide 50 per cent of the additional cost.

Subsidy amount is to be released only after the implementing agency is found capable of mobilising the remaining amount from other sources. In areas where construction of night shelter is not feasible, pay and use toilets are to be constructed under the scheme. A central subsidy of Rs.350 per user would be available once again, if the executing agency can mobilize the balance funds.

It is stipulated that the management of the night shelter and the community latrine should be entrusted to a NGO or a community organisation. It is possible for the construction to be in the form of renovation of an existing premises, and also comprise of a building with multiple uses such as community activities or production/training centre during the day and night shelter in the night, or one or two floors of the building being used for remunerative purposes. HUDCO loan is available for such innovative combination of activities. For various reasons, the scheme has not elicited an enthusiastic response from the State and local agencies, not the least being the ambivalent attitude to pavement dwellers and apprehensions about creating an impression of regularisation.

6. *Building Centers*

Starting from April 1988, and drawing on the successful experience of the building centre or Nirmithi Kendra of Quilon in Kerala, a national network of building centers has been established under the co-ordination of HUDCO with the help of central grants, HUDCO loans,

and inputs from State and local agencies. The centers are organised as registered societies under the chairmanship of the Collector or a leading professional, or established by a NGO, or professional institutions, or local bodies, and are run by trained architects or engineers and masons.

Kerala Government has formed these building centers in a hierarchy reaching upto the State level, and has directed all construction agencies of the government to entrust to the building centers upto 20% of the annual construction work. Most of the construction of the Rajasthan Housing Board is done through the State level Building Centre. At present, there are over 300 building centers. A number of State Governments subscribe to the benefits of decentralised delivery mechanisms for low cost technology and skill upgradation, and encourage the use of these materials in the construction of houses by the beneficiaries in low income and other housing projects. This is witnessed for example in Tirupathi, Vijayawada, Trivandrum, Bhubaneshwar and Vellore.

7. *Urban Transport Project*

Urban transport was allocated to the Ministry of Urban Development (now called Ministry of Urban Affairs and Employment) in 1986 which is presently responsible for planning and co-ordination of transport systems within the large urban centers. During the Eighth Plan, a few new schemes having a direct bearing on the provision of basic services have been initiated. The Ministry has initiated a study of 21 cities in different states, with the objective of developing a National Urban Transport Policy. An attempt would be made under the scheme to improve the transport infrastructure within these cities.

Currently, projects have been launched in three metropolitan cities in the country. In Delhi, mass rapid transit system is to be developed through a company which has equity participation of the Government of India and Government of National Capital Territory of Delhi. A large part of the resources will be generated through property development. Similarly, for implementing the Light Rail Transit System in Hyderabad, a Joint Stock Company viz. Urban Mass Transport Company Ltd. has been set up in 1993. It would take up the implementation of the project based on Building-Own-Operate and Transfer (BOOT) principle. In case of Bombay, a project proposal is being prepared by Bombay Metropolitan Region Development Authority. The cost in the public sector is to be shared by the Ministry of Railways and the Government of Maharashtra.

8. *Mega City Project*

This centrally sponsored scheme called Scheme of Infrastructural Development in Mega Cities has been launched in 1993-94 in response to demands from state governments. It is meant for the cities of Bombay, Calcutta, Madras, Bangalore and Hyderabad. The states have been pleading for quite some time their inability to fund infrastructural investment in their Mega cities whose problems are largely due to migration from outside the state. The National Commission on Urbanisation had recommended that central assistance may be provided for development of infrastructure in these national cities. It will be administered through the Ministry of Urban Development and funds would be channelised through a special institution (Consortium Fund)

at the State level. The funds from Central Government are to be used only as seed capital for the institution. The sharing between Central Government and State government would be 25:25. The rest 50 per cent is to be mobilised from institutional sources and private entrepreneurs.

9. *Accelerated Urban Water Supply Programme*

This is another centrally sponsored scheme included in the Eighth Plan for providing water supply facilities to the towns having population less than 20,000 (1991 Census). This programme aims at improving the quality of life of the poor. The urban local bodies will be suitably strengthened and closely associated in the implementation of the scheme through community participation. It will be operationally integrated with the State Public Health Engineering Department. This will be funded by the Central Govt., State Govt. and concerned local bodies on 50:45:5 ratio.

10. *Nehru Rojgar Yojana*

Nehru Rojgar Yojna (NRY) is the major direct poverty alleviation programme in urban area. Although its basic thrust is employment and income generation for urban poor, it has components for provision of basic services as well. This programme is designed primarily to raise income levels of urban poor, implemented through municipal bodies.¹² It has three components (i) The Scheme of Urban Micro Enterprises (SUME), (ii) The Scheme of Urban Wage Employment (SUWE) and (iii) The Scheme of Housing and Shelter Upgradation (SHASU).

The first two components of the programme viz. SUME and SUWE are directed towards income generation by providing self and wage employment respectively. Importantly, the SUWE schemes are directed to construction and improvement of social and economic infrastructure, including water supply and sewerage/sanitation facilities for area development. The third component viz. SHASU, however, is for shelter upgradation of the poor, through family labour and some governmental support. It would include provision and upgrading of basic services attached to dwelling unit while generating employment for them. A loan up to Rs.3000 at a very low interest rate and a subsidy upto Rs.1000 is provided to the beneficiaries identified by the urban local bodies. In case of an additional financial requirement, loan can be given by HUDCO at a higher interest rate.

The funds for the training component under SUME and SHASU come entirely from the central government. The remaining expenditures under these are shared equally between the central and the state government. The expenditure under SUWE is to be shared on 80:20 basis. In the Eighth Plan, however, the share of the central government has been fixed at 60 per cent

¹². Besides the Municipality, NGOs have a significant role to play in implementing NRY, especially in training and strengthening the backward-forward linkages of the scheme, setting up Municipal Service Centers and Housing Corporations under SHASU.

under all the three components. One can, therefore, argue that the central government's contribution in area development components that were larger than the other components and also less remunerative has been reduced significantly while that in income generating components has increased.

As in the case of UBSP, the NRY relies upon the effective involvement of the community and the NGO's as well as the channelling of assistance and activities through the local body. The States are encouraged to converge the NRY, UBVSP, low cost sanitation and physical improvements in the same group of slums. The States are also advised to set up registered bodies under the chairmanship of the Collector called the District Urban Development Agency (DUDA) for the integrated execution of all programmes for urban development and poverty reduction, and a number of States have set up District level and State level agencies as proposed by the Central Government. Wherever they are set up, the DUDA's can be linked to the District Planning Councils envisaged under the Constitutional amendment. They can also assist in building up an upto date information system on the availability and provision of urban services and housing as attempted in a number of cities and this can be aggregated at the State level by SUDA or other designated agency.

11. *Prime Minister's Integrated Urban Poverty Eradication Programme*

The programme has been launched in the year 1995-96, covering all the 345 urban centers that have population between 50,000 and 100,000 as per 1991 census. The main objectives of the programme are employment generation, shelter upgradation, social development and community empowerment. It envisages promotion of self-employment through skill development. A small subsidy and a loan, totalling to the maximum of Rs. one lakh would be provided to the beneficiaries. Also, the facilities like water supply, garbage disposal are to be provided and roads, pavements, drainage, toilets etc. are to be constructed on permanently relocated areas, for which the costs will be shared by the central and the state government at 60:40 basis. For environmental improvement, the state governments are to bear the total cost under the EIUS scheme. Strategy of convergence of all sectoral programme is being envisaged through this integrated approach.

Resources for the programme are to be mobilized through the urban local bodies, NGOs, concerned private agencies and the local community. A National Urban Poverty Eradication Fund is to be established through contributions from private individuals/agencies for which full income tax exemption would be granted. If these towns had any other poverty alleviation scheme like NRY, UBSP, the funds are to be shifted to other towns to avoid over lapping. A provision of Rs.800 crores as the central share has been made for the Eighth Five Year Plan period.

12. *Prime Minister's Rojgar Yojana*

The office of the Director-General SSI in the Department of Small Scale Industries in the GOI, and the concerned state agencies have been operating a centrally sponsored programme for providing self-employment to educated unemployed youth in urban and rural areas over the last ten years.

The objective of the scheme is to encourage the educated unemployed youth to undertake self-employment ventures in industry, service and business through the provision of a package of assistance. It covers all unemployed youth who are matriculates, and who are within the age group of 18-35 years, with weightage for women, scheduled caste/tribe persons. Only those with monthly household income less than Rs.10,000 are eligible. A minimum of 50% ventures are to be through industry in each district. The scheme was operated through the District Industries Centers in consultation with the lead commercial banks for the district. There is a Task Force at the district level with the responsibility of selecting the entrepreneurs, identifying different schemes for possible support, recommending loan and subsidy, and getting necessary clearances.

Subject to the recommendation of the Task Force, and the viability of the project, the banks advanced a composite loan not exceeding Rs.35,000 for industrial purposes, Rs.25,000 for service ventures and Rs.15,000 for small business ventures without the requirement of a collateral or margin. The government subsidy to the extent of 25% of the loan was kept as a fixed deposit with the bank in the name of the borrower for the period of the loan, and was adjusted together with interest against the final instalment of the loan. The loan was repayable over a period of 3 to 7 years.

The above scheme has now been substituted by a more ambitious scheme called the Prime Minister's Rozgar Yojana (PMRY) in order to provide self-employment opportunities to one million educated unemployed youth in the country by the setting up of 0.7 million micro-enterprises in the country. It will cover only urban areas during 1993-94 and the whole country from the following year. It is left to the States to distribute the state allocation among different urban and rural areas including metro cities.

The scheme may be implemented through the District Industries Centers or the District Urban Development Agency through a Task Force composed of concerned agencies and the commercial banks. The State Governments are expected to involve reputed NGO's, Chambers of Commerce and Industry in the identification, selection and motivation of beneficiaries, preparation of project profiles, marketing of products, training, repayment of loans etc. An illustrative list of 137 industrial, service and small business activities have been provided to the States for guidance. Projects costing upto Rs.100,000 are entertained, and composite loans upto 95% of the cost are sanctioned by the banks for viable projects. The Government provides through the bank upto 15% of the approved project cost subject to a ceiling of Rs.7500, and released to the beneficiary as in the earlier scheme. Group based enterprises are encouraged.

The scheme can be linked to the ongoing economic support programmes through the District Urban Development Agency under the Collector or the proposed District Planning Committee after the 74th Amendment, with the involvement of the commercial banks and financial institutions, and outreach to the community savings schemes. It is necessary to recognise the CD cells in the project agency as one of the channels for recommending applicants and for follow-up of the supported activities with the help of NHC's.

State Level Infrastructural Programme

Several State Governments have launched basic services schemes through their departments dealing with urban development or slum improvement boards. These have generally been undertaken with assistance from international agencies.

Currently, three types of schemes are being implemented in the country. These are schemes for (i) slum improvement, (ii) slum upgradation and (iii) slum reconstruction. Their approaches vary depending on (a) the status of the land on which the slum development project is to be taken up and whether the ownership right of land viz. patta is to be given to the beneficiary, (b) the socio-economic conditions of the slum dwellers, and (c) the conditions laid down by the financing agency with respect to cost recovery.

Slum Improvement Programme (SIP) involves merely physical improvement of the slum by the provision of a standard package of basic facilities. The schemes under it can be classified into two categories depending on whether the costs of providing the amenities are recovered from the beneficiaries or not. SIP is directed towards the improvement of the physical conditions in the slum and does not include upgradation or construction of dwelling units. Also, it does not involve community participation as it is implemented through government agencies. It has, therefore, been regarded as a purely technical approach to slum development.

Slum Upgradation Programme (SUP) designed for the improvement of shelter quality along with provision of basic services was started in the seventies at the instance of the World Bank. Currently HUDCO also finances SUP under its Slum Upgradation and Improvement Scheme. Usually the same facilities are provided under it as in SIP. However, giving of land patta on a leasehold or freehold basis is a requirement which distinguishes it from the SIP. It may be noted that even under the central government programme of EIUS, the provision of giving land rights to the beneficiary has not been made. The other distinguishing feature of SUP is the availability of a Home Improvement Loan (HIL) to the beneficiary on an optional basis.

The SUP can also be classified into two categories depending on the degree of formalisation of land tenure. We may place the projects wherein pattas are given to individual households on a freehold basis in the first category. The second category comprises those that do not involve bestowing of freehold tenure right on the beneficiary.

SECTION 6 Gender Issues in Urban Environment Management

Women in Development

Poverty and vulnerability are not synonymous. Within urban centres, inadequate incomes are the main cause of poverty, but it is inadequate income-generating assets which underlie low-income groups' vulnerability to economic shocks or to the economic consequences of poor health, low income obstructs the ways to build assets to reduce vulnerability. Women are generally more vulnerable than men because of the differentials between men and women in terms of access to income, resources and services. Women generally have fewer income-earning opportunities than men and they earn less-low-income households are likely to be far more vulnerable in societies where there are major barriers that limit the possibilities of women to work.

Women's income-earning activities cannot be considered in isolation from their roles within households as they affect each other. They generally contribute more than men to community organizations and to initiatives to address the lack of provision by governments for infrastructure and services. Responsibilities for childcare, household management and community action limit their capacity to earn an income. Associated facilities like child-care centres are also absent. Public transport system is not oriented to women's needs. Cost-cutting exercises result in reducing off-peak loading, much to disadvantages of women.

Women have disproportionately small share of household income from which they have to meet demand for food, clothing and health.

In low income area, the percentage of widow or abandoned women is high.

Current poverty-alleviation programmes have paid greater attention to women's problem. Increased priority to primary health care centre is one such example.

The NGOs try to lessen the discrimination against women in terms of access to employment, credit and independent ownership.

(a) Women Development Schemes under the Plans.

The need to bring women into the mainstream of development has been a national concern since Independence.

In the earlier phase of Indian planning, women's development has been a national concern since Independence.

In the earlier phase of Indian planning, women's development concerns had a low profile. There were, however, some significant beginnings. A major initiative was the establishment of the Central Social Welfare Board in 1953 to promote and assist voluntary organisations in the field of women welfare, child welfare and welfare of the handicapped. Under the community

development programme, Mahila Mandals were promoted and supported since the Second Plan. Some legislative measures were also undertaken to protect the interests of women as, for instance, the Suppression of Immoral Traffic in Women and Girls Act, 1956, the Hindu Succession Act, 1956, the Dowry Prohibition Act, 1961 and the Maternity Benefit Act, 1961. The Third and the Fourth Plans accorded a high priority to education of women. Measures to improve maternal and child health services, supplementary feeding for children and nursing and expectant mothers were introduced. The Fifth Plan supported economic development, employment and training for women as the principal focus for their socio-economic development. The main approach in these Plans was generally to view women as the beneficiaries of social services rather than as contributors to development.

The seventies brought women to the forefront of development concerns with the publication of the Report of the Committee on Status of Women in India, the observance of the International Women's Year in 1975 and the preparation of a National Plan of Action for Women. This decade also saw the enactment of important specific legislations like the Equal Remuneration Act, 1976. The creation of a separate Bureau of Women's Development and the setting up of a national committee with the Prime Minister as President were intended to provide strong administrative support to women's development. During the Sixth Plan, a multi-sectoral approach was adopted for women's development and, for the first time, a coordinated picture was presented in the Plan. A separate Department of Women's Welfare was carved out at the Centre in 1985 from the then existing Ministry of Social and Women's Welfare to give a separate identity and to provide a nodal point on matters relating to women's development. Legislative measures were taken to provide protection to women against discrimination, exploitation, atrocities and violence. Various labour legislations were amended to safeguard the interests of women and provide for their welfare.

A significant step taken in the Seventh Plan towards improving women's status was the identification of a number of beneficiary-oriented programmes under various sectors of development. These programmes were regularly monitored by the concerned Ministries/Departments and coordinated at the Centre by the Department of women and Child Development.

Efforts were also made in the Seventh Plan to enhance women's skills.

A separate entrepreneurs' cell has been set up in the office of the Development Commissioner, Small Scale Industries to provide counselling to women entrepreneurs. Women are given preference in schemes of self-employment among educated unemployed youth introduced in 1983-84.

Educational training in selected trades with high employment potential was provided to women in six regional vocational training institutes. A national training Institute for Women was set up at NOIDA. A new scheme was taken up by the Ministry of Labour for providing grant-in-aid to State Governments setting up women's ITIs/wings.

Women's Development Centers were set up in 22 universities and colleges to bring about social awareness of women's issues and focus efforts on the development of rural women.

For improving the health and nutrition status of women, maternal and child health services were strengthened. The Universal Immunisation Programme, which aims at universal coverage of pregnant women and infants, was extended to all the districts in the country. Special centers were set up to impart nutrition education to mothers through home visits by multipurpose workers. Mass education and media activities were geared up to promote and create awareness against early marriage. The message of family planning, the desirability of delayed motherhood, and spacing of births was promoted vigorously.

A number of schemes, supplemental to the general development programmes, were implemented by the Department of Women and Child Development. The important role of voluntary organisations in women's development was recognised. Grants were given to them to promote and support women's development and encourage them to participate in problem areas. Women's Development Corporations were set up in 11 States and one Union Territory to promote economic activities, organise training and generate employment. The Central Social Welfare Board continued the scheme of assisting voluntary organisations to set up production units, thereby providing work and wage to poor women.

The strategy in the Eighth Plan is to ensure that the benefits of development from different sectors do not bypass women and special programmes are implemented to complement the general development programmes. Voluntary agencies will be supported in their advocacy and social activism programmes for gender equality and prevention of atrocities on women. Panchayati Raj institutions will be involved in the designing and implementation of women's programmes.

Women, who form nearly half of the population, will be recognised as a target group in the promotion of employment. The employment strategy for women will be integrated with the respective sectoral planning. It will be based on promotion of opportunities for self-employment and creation of wage employment. A better deal for the women work force in the organised sector would require encouragement to the formation of producers' groups and cooperatives. This would help improve their bargaining power and access to inputs. Special, condensed, job-oriented courses will be organised for women. A list of gender-specific schemes of the Government of India has been provided in the Annexure.

(b) Women's Organisations and Research Centres

Dealing with Gender Issues some major institutions, agencies and women's groups have been instrumental in the advancement of women in India. Although women's groups have been in existence for a very long period, there has been a welcome spurt during the last two decades. The women's studies research centers within the universities are the development of 1980s.

The scope and structure of these organizations is as diverse as their activities but they all strive to achieve a common goal of the upliftment and development of women, whether it is through education, research and training programmes or through counselling, awareness generation activities and a wide range of other services and programmes. In terms of coverage their activities range from the grassroot level to the national level. They may be activist groups, policy-making bodies, research organizations or professional associations. Their target groups

vary from rural to urban women, housewives to working women, working mothers, widows, destitutes, illiterates to urban educated middle class women, from self-employed poor women to highly placed women entrepreneurs. The organizations may be government bodies, ministries or voluntary organizations popularly known as non-governmental organizations (NGOs).

Although different categorization of the organizations is possible based on the size, coverage, activities and methodology for reaching out to women, here they have been broadly grouped as the following:

1. Government: ministries, departments and agencies
2. Women's organizations and institutions
3. Women's studies centers and cells within the university system.

1. *Government: Ministries, Departments and Other Agencies*

As the apex body, the Department of Women and Child Development (1985) under the Ministry of Human Resource Development, Government of India, is entrusted with the responsibility for formulating as well as implementing policies and programmes for the welfare and development of women in the country. It derives its role and responsibilities from the National Action Programme for Women (1976). Two organizations, viz., National Institute of Public Cooperation and Child development (NIPCCD) and the Central Social Welfare Board assist the department in its functions and implementation of some of its programmes. The department also has the responsibility to guide, coordinate and review the efforts of both the governmental and non-governmental organizations working for the development of women. In all its efforts the department enlists the active cooperation and involvement of non-governmental organizations in the country.

The department has set up a National Commission for Women during 1992 in accordance with the National Commission for Women Act to study and monitor all constitutional and legal safeguards for women, and to investigate various complaints of exploitation and harassment of women. The department has two organisations under it, namely, the National Institute of Public Cooperation and Child Development, and the Central Social Welfare Board.

The Women's bureau in the Department of Women and Child Development functions as the nodal cell responsible for the formulation of schemes and their monitoring on behalf of the GOI.

The National Credit Fund for Women (Rashtriya Mahaila Kosh) has been set up during 1992-93 as a trust, with the major objective of meeting the credit needs of poor women in rural and urban areas, especially those in the informal sector with a demonstrated saving habit. It is proposed to develop a national network of credit services for poor women through NGO's. The Fund will generate a total credit of Rs.1500 million over the next six years in order to benefit 200,000 beneficiaries. The Trust will be extending loans to established NGO's and self-help groups of women below the poverty line with experience of thrift administration and operating community level savings schemes such as the Samakhya or SEWA. The loans will be for income-generating activities, with a provision to use upto 0.5% of the credit for training. The

credit will be extended at 8% to the NGO to be repaid over 15 months for short term loans and 3 to 5 years for medium term loans. An interest spread of 4% will be available to the NGO to meet the transaction costs but they have to provide 10% of the credit as margin. The loans for each borrower can range from Rs.2500 to 5000 with an emphasis on simple locally established procedures and collateral. The Trust will also provide information to poor women on credit sources, marketing, technology quality control, trade and product opportunity profiles etc.

Various other ministries and departments have either special cells to handle women-oriented programmes or there exists such a component in their plans, programmes and schemes. Apart from the ministries and their departments, some national apex bodies which are autonomous but government supported in different sectors, viz., social science, agriculture, education and health, provide support and input in terms of finances, research and training projects and programmes and a variety of other ways.

1. *Women's Development Corporations (WDCs)*

Women's Development Corporations have been established by the government with the objective 'to provide better employment avenues for women so as to bring them into the mainstream of national development. It has been recognized during the previous plan periods that lack of access to credit and infrastructural facilities were major obstacles to women's employment especially in the self employment sector. In addition, poor designing and marketing facilities and an increase in competition are other areas where self-employed women find themselves isolated'. The state governments and union territory administrations have been striving to set up and strengthen Women's Development Corporations, as catalysts for sustained income-generating activities among women. The corporations aim to promote schemes for women's groups and women from the weaker sections of society giving priority to single women.

The functions of these corporations are 'to identify women entrepreneurs; to prepare a shelf of viable projects and provide technical consultancy services to facilitate availability of credit through banks and other financial institutions (through the scheme of marginal money assistance); to promote and strengthen women's cooperatives and other organizations and to arrange training of beneficiaries in concerned trades, project formulations, financial management etc., through existing institutions such as women's polytechnic and ITI's.

2. *Women's Organizations and Institutions*

Over the years the role of the voluntary sector in providing support to the women's movement and development through various forums, groups and agencies has been most vital. These organizations may be varied in the scope, coverage and range of their activities and are very diverse in nature.

The women's movement has been receiving constant support from other specific groups or organizations which are engaged in academic research relating to women's issues. Such organizations are often funded by the (ICSSR), the various ministries and other development and UN agencies and international bodies for specific sectoral projects and activities. Along with research, such organizations are also deeply involved and concerned with advocacy, awareness

generation activities, conferences, seminars, documentation, communication and dissemination of ideas and information through regular publications, newsletters and research reports.

The other major category of organizations is that of associations which bring together like-minded individuals for a common cause. These may have a broad scope like the Young Women's Christian Association (YWCA) and Indian Association for Women's Studies (IAWS) or a narrow one, viz., the women lawyers, writers, doctors or entrepreneurs' associations. The Self-Employed Women's Association (SEWA), one of the most well-known women's association and trade union is devoted to the cause of women working in the informal or unorganized sector.

3. Women's Studies Centers and Cells within the University System

The University Grants Commission has a special mandate to promote women's studies within the university system. The Research Centre for Women's Studies was the first such independent unit established as early as 1974 within the SNDT Women's University, Bombay. During the last decade the number of such UGC supported women's studies research centers has gone up to 20 and more would be coming up every year. The common objectives of all these centers are promotion of women's studies through teaching and research, curriculum development, extension services, documentation and dissemination.

Similarly within the colleges, women's studies cells have been promoted by the UGC to work on the same guidelines as are laid out for the research centers but with a narrower scope.

Apart from the UGC sponsored centers and cells some independent ones have also come up within the university system which are not sponsored by the UGC.

The organizations categorized here are by no means the only classification and neither is the list given here a comprehensive one. The idea is to provide an overview of the types of women's groups, organizations and agencies working at various levels for the common cause of women's development.

SECTION 7

Non Government Organisations

Non-government organizations (NGO) have been a major instrument of development efforts in modern India. Their origin can be traced long back in Indian history, where they have been active in largely rural set-up. Over the years, they have undergone several modifications in order to extend their scope of activity beyond the realm of conventional welfare. At present, there is hardly any field of activity in India, where these NGOs are not in operation. Their present concerns are extended over health, education, agriculture and rural development, science, consumer welfare, environment and various other areas covering improvement in physical and social quality of life.

The importance of NGOs has been realised in the formulation of the First Five Year Plan, which committed itself to actively support them, facilitating their participation in nation building. The term 'voluntary organization' was usually used in the past in order to signify the service-oriented nature of such organizations. Over the time, with increasing professionalism incorporated in this sector and also, to distinguish them from other government organizations from the point of view of foreign assistance they largely began to be known as NGOs. The successive Five Year Plans have emphasized their significant role in planning and implementation of development programs. The Seventh Five Year Plan (1985-90) envisaged a major role for them, particularly in organizing beneficiary groups and implementing various anti-poverty programs.

Over the years, the NGOs have established themselves firmly on the social scenerio of India. They can and do act as 'eyes and ears' of the people they work with. Their close rapport with the countries help them to gauge realistically the needs and aspirations of the community, which they can communicate to the policy makers and planners. They have a role in testing innovative models and ideas which can be replicated with suitable adaptations in other areas. The NGOs have demonstrated their competence to mobilise locally available human skills and material resources and have in the process created vital assets in the communities with complete involvement of the people. Creation of awareness among the poor about their right to service is another important area where these NGOs have made their presence felt. Such awareness at the grass roots make the local delivery systems more responsive to the needs of the poor. Side by side, these organizations have also supplemented the efforts of the Government in delivering the basic services to the poor, especially in rural and tribal areas. They also play an important role in major policy making decisions of the Government. The Department of Education consulted a large number of voluntary agencies while formulating the New Education Policy and the National Literacy Mission document. Similarly, while finalizing guidelines for programs of rural development, CAPART also had wide ranging discussions with NGOs. The working group constituted too simplify the procedures of grants-in-aid also had several NGOs as its members.

However, until recently, no comprehensive network was established to co-ordinate the activities of various NGOs working in isolation. Recently, a beginning has been made in the rural sector. The Ministry of Rural Area and Employment has created a nodal agency i.e. the Council for Advancement of Peoples' Action and Rural Technology (CAPART), a registered society (established in 1986) under the administrative control of Department of Rural

Development. It is the apex funding and monitoring agency for NGOs working in rural areas. The Seventh Five-Year Plan has set some guidelines for identifying NGOs to be eligible for financial assistance in various developmental programmes. It stresses that the NGO should be located in rural areas and be working there for a minimum of three years.

On the contrary, there is no such co-ordinating cell for NGOs working in urban areas. The Voluntary Action Co-ordination Cell of the Planning Commission prepares the list of various welfare schemes (approved by the Commission) under different Ministries for which financial assistance is available to the NGOs. Requests for financial assistance are to be made on prescribed forms available in the concerned departments of the ministry. The eligibility for financial assistance requires that among other requirements, the organization should be established for a minimum period (usually 3 years) but nothing is specified regarding the location of organization, except for so many rural programmes. The Central Government has initiated a program of providing financial assistance to NGOs through grants-in-aid. The setting up of Central Social Welfare Board in the early fifties was an important step in this direction. The Board today assists more than 12,000 NGOs enabling them to undertake many welfare and development activities. Apart from CSWB, various Ministries and Departments of the Govt. have come forward to support NGOs by allocating funds to be spent through NGOs, a target that has been totally fulfilled.

Along with the financial support the Government also intends to provide technical help through field counselling with a view to improving the managerial competence of voluntary agencies and standard of services organized by them.

The rules for administration of grants-in-aid flow largely from the General Financial Rules of the Government of India. These Rules stipulate that NGOs should be registered, should have been in operation for at least three years before seeking grant, should have an ability to raise matching contributions and abide by other requirements in order to be eligible for grants. The Rules require that the concerned Ministries should have a Grants-in-Aid Committee in each of the departments dealing with NGOs.

The Income tax laws are also quite soft on incomes of Trusts, Societies and other NGOs depending on the schemes they are working under. Donations to such NGOs are exempted from Income Tax calculations. Department of Administrative Reforms and Public Grievances in the Ministry of Personnel set up a working group in 1988 to review procedures for processing grants-in-aid. They examined several relevant issues and made many recommendations of a far-reaching nature in order to enhance the sustainable development of NGO participation. One of the major recommendations was proper training of the personnel of Ministries and Departments who deal with the proposals of NGOs. It also stressed the need for a Policy Statement on NGOs clarifying their role in the development process vis-a-vis their relationship with the State.

The Ministry of Home Affairs has recently set some guidelines for clarifying NGOs according to the activities they are engaged in. The activities fall into seven categories - Charity, Welfare, Relief, Rehabilitation, Services, Environmental Development and Development of Human being, arranged in descending order of preference in the official acceptability of the schemes. The first six types of activity are described as the delivery system whereas the last item

refers to the receiving mechanism. The place of work, however is not specified in the guidelines.

NGOs can be classified from statutory point of view into three categories (1) Trusts, registered under necessary legal provisions, (2) societies, registered under the Society Registration Act, 1860 and (3) Non-profit Companies registered under Sec. 25 of Companies Act. Among them, society is the most popular organizational form, with the simplest procedural requirement.

NGOs interested in working under the schemes specified by the various ministries will have to apply to the concerned departments of the relevant ministry. A list of such schemes under different ministries has been prepared. The applications generally are routed through the Central Social Welfare Board (CSWB) under the Ministry of Welfare. The States have corresponding State Welfare Boards (SWB) which monitor the NGO activities. CSWB and the corresponding state-level agencies provide direct funding to the NGOs and supply supporting funds to the Ministries when there is a budgetary short fall for financing the approved welfare schemes of the Ministries.

Some NGOs are not directly involved in the service-delivery process. Rather, they provide fund for such organizations. They themselves may get foreign funds for financing such programmes. Such NGOs are registered under Foreign Contribution Regulation Act (1976) with the approval of the Ministry of Home Affairs. However, any request for foreign loans will have to be cleared from the Ministry of Finance.

Presently, there are more than 12,000 NGOs registered with Central Social Welfare Board. There are other unregistered organizations as well. Largely, these organizations have the following common characteristics -

1. It is an organized group of individuals.
2. It is formed in order to foster some common interest of its members.
3. The membership is voluntary
4. It is registered under proper Acts.

International Council of Voluntary Agencies (ICVA) has developed some guidelines for helping the Os to assess the implications of accepting government funds for their programmes and also to develop collective NGO positions vis-a-vis government funding. The guidelines are as follows -

1. Community integrity, autonomy, flexibility and effectiveness should be maintained.
2. Consultation with NGO partners and programme beneficiaries must precede government funding.
3. Dialogue among NGOs should be promoted to develop collective positions vis-a-vis government funding.
4. Financial audits and evaluations should be mutually agreed.
5. Broadly designated or block grants are preferable.

Apart from the Government, there are many other domestic and international agencies which provide financial assistance to the NGOs for development activities. Such institutes and organizations have been documented in Annexure.

SECTION 8 External Assistance

The World Bank has made its presence felt in the urban sector by providing concessional finance to state governments for their urban development projects in the eighties. Such projects are currently under implementation in the states of Maharashtra, Gujarat, Uttar Pradesh and Tamil Nadu (Table V). The projects cover several sectors such as shelter, slum upgradation, sites and services, transport, low cost sanitation, water supply, solid waste management. etc. The Ministry of Urban Development at the centre monitors the implementation of these World Bank aided projects.

Overseas Development Administration (ODA), a British Agency, is funding many slum improvement projects in Andhra Pradesh, Madhya Pradesh, West Bengal, Orissa and Kerala (Table VI). Importantly, these projects include provision of social and educational inputs besides physical infrastructure.

Government of Netherlands is currently involved in the Urban Poverty Alleviation Project in Bangalore with an assistance of Rs. 1.6 crores. The details of activities are being worked out in consultation with the state government of Karnataka.

World Bank (IDA) assisted projects carry soft loans viz. low rate of interest and a long repayment period. ODA projects, on the other hand are smaller in size but receive assistance in the form of grants. Some of the projects assisted by external resources are mentioned in Table IV.

External assistance for family welfare programmes is being received from a number of multilateral and bilateral sources including the ODA. These include UN agencies like the WHO, UN Population Fund, and UNICEF, World Bank and bilateral donors like the USAID, ODA, Norwegian Agency for International Development, and DANIDA.

World Bank assisted India Population Projects are being implemented in 11 States including the six metropolitan cities such as Bombay, Madras (from 1988), Hyderabad, Calcutta, Bangalore and Delhi (from 1993 August). The IPP projects in the metropolitan cities aim at extending the delivery of family welfare and primary health services in the slum areas with emphasis on maternal and child health, birth spacing and increased use of temporary contraceptive methods. They envisage the construction of health posts for community outreach services, with operation theater facilities in some of the outposts. The expansion of health and family welfare services to the slum population in IPP 8 cities would be through engaging voluntary female health volunteers recruited from the slum communities as well as the involvement of private voluntary organisations. The projects aim to upgrade the supervisory, technical and interpersonal skills of all the medical and paramedical staff through training. The Calcutta model of health outreach services through CHW's, first and second tier supervisors and Honorary Medical Practitioners has been widely commended for adaptation elsewhere. The demand for, and the utilisation of, family welfare and CSSM services will be increased through an expanded programme of information, education and communication, increased participation of the slum communities in the programme at all levels, increased participation of NGO's, and private M.O.'s as well as by strengthening the management and administration wings of the

Municipal Corporations. The projects will also take up innovative projects for supplementary nutrition, environmental sanitation, female education, income generation and entrepreneurship development. The Health Ministry had approved the

TABLE - IV

Details of IDA and ODA funded Urban Development Projects

Projects	Implementing Agency	Period	Estimated Cost	Funding Agency
Bombay Urban Dev. Project	State Govt. or Urban Dev. Agency wherever constituted	1985-94	554.41	IDA
Gujarat Urban Dev. Project	As above	1985-94	197.21	IDA
Uttar Pradesh Urban Dev. Project	As above	1988-96	329.94	IDA
Tamil Nadu Urban Dev. Project	As above	1988-95	32.55	IDA
Hyderabad SIP-III	Hyderabad Municipal Corporation	1989-95	42.75	IDA
Visakhapatnam SIP	Vizag Municipal Corporation	1988-95	28.59	ODA
Vijayawada SIP	Vijayawada Municipal Corpn.	1990-95	49.15	ODA
Indore HIP	Indore Dev. Authority	1990-95	34.54	ODA
Calcutta SIP	Calcutta Metropolitan Dev. Authority	1990-95	39.17	ODA

Source: Ministry of Urban Affairs and Employment

Extension of the activities to other municipalities in the same State. It should therefore be possible for the States of West Bengal, Andhra Pradesh, Maharashtra, Karnataka and Tamil Nadu to seek extension of IPP 8 to other major towns in the same state. It is also possible for the other States to pursue the proposal for IPP in major cities for approval by the Health Ministry and then the external aid agencies like the World Bank.

UNICEF provides financial assistance for Universal immunisation towards the procurement of supplies, cold chain, training and IEC, and these inputs are available in the cities where the SIP operates or will operate, to the extent of allocation decided by the State Health Department. The UNFPA assistance in areas relevant to UBSP relate to population education

including school and non-formal education, and income-generating activities for women in slums.

ODA of the Government of U.K. is funding the Area Development Scheme in five districts of Orissa for improving the health and family welfare services in these districts. It is assisting the implementation of AIDS control programme in Calcutta, and is likely to assist a State level health project in West Bengal, according to the State Health Department. USAID is providing assistance for private voluntary organisations in the health sector in order to reduce morbidity, mortality and fertility among the rural and urban poor. So far, 34 projects have been sanctioned under the programme including 29 outreach service projects.

Support to employment programmes (STEP) and scheme for setting up employment-cum-training-income generating units for women (assisted by NORA of Norway) provide financial assistance to voluntary agencies for training women and creating employment for them in various activities, with NORAD emphasising non-traditional activities.

It is worth referring to the Andhra Pradesh Primary Education Project (APPEP) which is being implemented with ODA assistance since 1983. The objective of the project is to improve the quality of primary education in urban and rural areas.

The Overseas Economic Co-operation Fund (OECF) of Japan has pledged a loan assistance of 17,098 million Yen for the Madras Water and Sewerage System Project during 1994-95. This project envisages functional improvement of the water distribution and sewerage system in Madras at an estimated cost of Rs.572.09 crores.

Under the Indo-French Protocol agreement French assistance has been allocated for Water Management Project in Jaipur and Delhi for an amount of 33 million Francs and 102.4 million Francs respectively. World Bank has assisted in 15 water supply and sanitation projects in Madras, Bombay, Hyderabad City besides the states of Tamilnadu and Kerala and a six other projects, i.e. two for Madras and one each for Bombay, Andhra Pradesh, Rajasthan and Punjab are in the pipeline.

ODA, the Swiss Government and OECF, Japan are also coming up as a major funding agencies for water supply schemes in future.

TABLE VII

Water Supply and Sanitation Projects receiving assistance from external sources

Name of the Project	Project Cost (Rs.in Crores) (US \$ m i l l i o n s)	Amount of	Funding	Agency
			Assistance	
1. Tamil Nadu Water Supply and Sewerage (WS&S)	321.86		90.60	World Bank
2. Kerala WS&S	127.88		30.11	World Bank

3.	Bombay WS&S	915.00	185.00	World Bank
4.	Madras WS&S	255.95	69.00	World Bank
5.	Hyderabad WS&S	257.06	89.90	World Bank
6.	Madras WS&S	572.09	17,098 Million Yen	OECD, Japan
7.	Water Management Project, Delhi	-	102.4 Million Francs	French Govt.
8.	Water Management Project, Jaipur	-	40 Million Francs	French Govt.

Source: Ministry of Urban Affairs and Employment, Annual Report, 1994-95.

SECTION 9

CONCLUSION

India has a wide-ranging framework of programmes, organization, policy and strategies for management of the urban environment. However, a close look at this huge set-up reveal that there is need for co-ordination at various level. There are several parallel programmes and parallel organizations simultaneously in operation in a large number of urban areas. This in turn produce a skewed distribution in the allocation of funds. Inter-city allocations run the risk of being determined by committed liabilities rather than a city wide mapping of facilities.

The implementation of the various social sector schemes in the central sector takes place at the State and municipal level, driven by the allocations in the budgets of the State Governments and the local bodies, as also by the policies and procedures of individual departments. Even the pace of utilisation of central assistance in the form of loans or grants is often determined by the ability of the State Finance Department to provide matching funds. It has been noted in the case of World Bank an ODA projects in the urban sector that the mere disbursement of aid funds from the GOI to the State Government is no guarantee of immediate receipt of funds by the project agency; for, that would often be guided by the exigencies of State finances and alternate uses for that money for the other projects.

As between different social sector schemes, availability of central Plan provision or additional Plan assistance on account of external aid would influence the priorities of the Finance Department in deciding inter-se Plan provision. Since Non-Plan expenditure has to be met entirely from State's own resources, releases to local bodies and maintenance requirements of continuing activities are often constrained by the ways and means position of the State.

In view of the significant dependence of the urban local bodies on tax-sharing and general or specific grants from the State governments, the compression of expenditure and delayed release of grants affect the capacity of the municipalities to undertake essential maintenance, or assume new commitments. Where the local bodies do not have the benefit of an elastic tax base like octroi, they have to depend mainly on property taxes, in a situation where non-tax revenues are not significant, and property tax suffers from an eroded tax base, problems of revaluation and poor collection. The component of local expenditure in the total public expenditure is in any case quite low. The per capita expenditures of most municipalities are much lower than the desirable norm for the maintenance of services. The cost of services are never fully recovered, due to a combination of political pressures, inadequate legal revisions, and inefficient systems of administration. The consequence is seen in the poor quality of services, inequitable coverage of the population, especially the poor, and the problems of extending basic services to additional population.

The organizational structure devised by individual sectoral Ministries for the implementation of the programmes and the professional biases sometimes hinder inter sectoral consultation. The operational guidelines are based on the hierarchy of professional and supporting staff, stretching from the State administrative department and the Directorate to the regional and field offices of the department, the training and research organizations underlying the set up etc. The consultation with, and the involvement in the execution of, the municipality and other local

agencies is left to the option of the sectoral department. The coordination with other programmes is sought to be achieved in some States through the medium of the District Planning Council and the Office of the Collector, with varying success, depending on the extent to which the District Council exercises control over the utilisation of funds to the department.

The health programmes are implemented by the State Directorates of Health, Medical Education and Family Welfare, sometimes without internal coordination within the health sector itself. While the health care services and the treatment of common ailments are looked after by the municipalities in a number of States, even these are centralised within the Health Department in some States. While the municipalities are responsible for the provision of basic services to the slum dwellers, the Urban Revamping Programme guidelines do not provide for placing the health posts under the control of the municipalities, wherever the latter are willing, and in cities like Indore and Cuttack, the programme is being independently operated by the State Health Department through the District Health Officer without involving the local body. The assistance to the voluntary agencies which are involved in the programmes of the two wings of the Health Ministry including population control, is provided directly, or through the State Governments, without relating it to the other related areas of operation of the same NGO or other agencies.

In the field of nutrition and child care, the anganwadis have been functioning largely under the hierarchy set up by the State Social Welfare Board or Women and Child Development Department, and the local bodies have been involved neither in the location of the centers nor in the operational aspects of nutrition, health care, community anticipation, selection and monitoring of beneficiaries etc. This has understandably led to overlaps in the establishment of balwadis, recruitment and training of teachers etc., and the failure of the scope for addressing the critical deficiencies of ICDS in the form of accommodation and amenities through support from the municipality through ongoing programmes or its own budget or contribution from private sources. It has not been linked to the programmes of the Ministry of Welfare, or of NGO's assisted by it, for the street children and other disadvantaged groups in terms of child care and pre-school services or care of the girl child, or services for pavement dwellers. The pre-school activities have not been linked to the extension of primary education or non-formal education through another department of the State government, in order to form an unbroken chain of learning for poor children.

Similarly, the selection of beneficiaries for the P.M. Rojgar Yojana is proposed to be done by an official task force on the basis of applications, instead of relying on the innovative systems built in a number of UBSP projects for a trade profile; community-based selection of eligible entrepreneurs, modulating the assistance according to the skills and resources of the poor families, and training for entrepreneurship. It is not linked to the almost parallel programmes run by the Ministry of UAE for the convergence of activities meant for income enhancement and employment of the urban poor and the unemployed, and the involvement of community organizations and municipalities.

It is noticed that appropriate technology and the development of skills and employment generation through shelter upgradation construction is an aspect not sufficiently emphasised in the housing and slum upgradation projects, despite the importance attached to this by the NHP and the Planning Commission. Since it is a part of National and State Housing Policy to promote

technology dissemination, production of low cost materials and skill upgradation through professionally managed, decentralised institutions, it will be useful for the economic support programme and vocational training programmes to take advantage of the building centre scheme of HUDCO. It is also possible to work out alternate technology options for construction in order to reduce the cost, encourage the use of local materials and techniques, upgrade the skills of building artisans and small contractors, encourage the formation of artisan co-operative to take up contract work as in Pondicherry, develop local retail outlets for building materials for the benefit of families, provide shelter guidance on maintenance and construction, help in setting up brick kilns etc., and generate jobs and skills from housing.

A major initiative taken by HUDCO is to promote a national Centre for NGO's in Delhi (with a number of regional chapters to follow) for providing a platform for the NGO's in the urban and housing sector to come together, identify common problems and urgent issues for resolution at national and local level, and indicate areas of training and skill upgradation for the NGO's is drawing up a blueprint for the organization of community thrift and savings groups, and their federation at the city level for the purpose of accessing outside resources on terms that do not militate against the flexible and informal style of the savings groups. The HUDCO centre is in a position to advise city level groups on how to go about organizing thrift groups, using the experience of other NGO's, and help them to augment their resources, develop skills for management etc.

Ministry of Urban Affairs and Employment (MUAE) is the only ministry that has set up a structure for linking central programmes with co-ordination from CBOs and Neighborhood Committees. In recently announced Prime Minister's Poverty Eradication scheme, it is proposed to follow the UBSP structure. Another major infrastructure scheme run by this Ministry i.e. the IDSMT also proposes under its revised guidelines that only the urban settlements with duly elected local bodies will be eligible for financial assistance under this scheme. It can be concluded that effort towards structural adjustment for administrative and financial coordination are being made with the supporting legal framework provided by the Constitutional Amendment Act, 1992.

The community-based organisations and other citizen's group have been active in different sectors of environmental management in urban area. A good number of them are engaged in specific public works which remain largely a local issues. Lack of coordination among these organisations sometimes lead to competitive rather than complementary approach specially when grants are concerned. The government has several social welfare schemes to be implemented by the NGOs. It has been observed in many cases that grant-based works have been considered as fixed income activities, so the organisations have been reluctant to take any initiative for resource mobilisation and other sustainable approach.

Recently, the academic and research institutions are increasingly being involved in coordinating activity for these organisations. Widespread research, seminars, documentations are being carried out for more dissemination towards capacity building at all levels. Foreign funding agencies are also interested in programmes that will involve the community-based organisations for sustainable development.

