

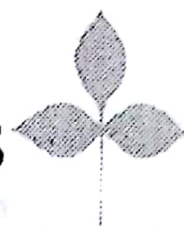


BULLETIN

OF THE

CENTRE FOR POLICY STUDIES

(SANKAR FOUNDATION)



THE URBAN CHALLENGE

Reports emanating from the United Nations contain ominous projections about the cities of the world. They are "Social time bombs" which are growing so fast that "their arteries are showing through their outskirts." In about twenty years from now there will be seven 'mega-cities' of more than 20 million people and six of them, including Bombay and Karachi, will be in the third world. Mega cities, as Eugene Linden's article in 'Foreign Affairs' shows, breed mega problems like pollution, disease and violence leading to urban chaos. According to Linden 61% of humanity will be living in cities in the next century as against less than 10% at the beginning of this century. Linden says that "population pressures and the integration of the world economy have unleashed forces that can overwhelm a city, however well managed." Another expert went to the extent of saying that because of growing unemployment caused by migrations from rural to urban areas, cities could become 'mass graveyard.' The fate of the cities, writes Linden, determines, the fate of nations and regions and 'swollen cities and weakened states' will present a grim scenario as we step into the 21st Century.

Writing on the Indian situation, Prof. M.N. Srinivas says that "we have become urbanized as never before." From 11% in 1951 India's urban population has soared to near 30% and villages are getting urbanized thanks to videos, TV sets and computers. The Hindu (August 5, 96) additionally discussed the garbage problem facing India's cities. In Surat, according to the paper, 1250 tonnes of garbage are generated everyday of which 250 tonnes of garbage are not removed and 60 million litres of the 130 million litres of sewage are not collected. In Delhi 1400 tonnes of garbage and 600 million litres of sewage are not cleared. In Mumbai the figures of uncleared garbage are 800 tonnes and sewage 800 million litres. (In Visakhapatnam of the 400 tonnes of garbage generated everyday 100 tonnes are not cleared according to the local authorities). Municipal Corporations 'operate to a third of their capacity' writes The Hindu, besides being corrupt and inefficient. The task before urban planners, administrators and city dwellers is daunting.

Experts say that enlightened leaders, competent administrators and ecology-conscious citizenry must come together and embark on a plan of action to prevent the impending chaos. Lester Brown has recently suggested environmental taxes in place of high income taxes for mobilizing resources and for instilling in the minds of the people awareness and responsibility. Prof. M.N. Srinivas's sharp comment on the ostentatious consumer habits of the rich reminds us of the need for 'cultural liveliness' replacing 'competitive lavishness.'

— Editor

SEMINAR ON 'URBAN FUTURE' ORGANISED BY CENTRE FOR POLICY STUDIES

Mr. D.V. Subba Rao, Ex-Chairman, Visakhapatnam Urban Development Authority and former Mayor observed that model legislation had not come into being to empower the urban authorities on proper lines. To improve urban finances he suggested the creation of Urban Finance Commission. Local bodies should be vested with more financial powers for undertaking developmental works in urban areas. He felt that the Municipal Corporation of Visakhapatnam was neglected by successive governments during the last 15 years. It suffered due to lack of political will. Parliament members from the region should fight for getting more funds. The problem of the Third World countries was different from advanced countries as the former suffered from poverty, malnutrition and many other problems. The city administration was ill-equipped to meet the challenges, he felt and suggested sharing of developmental activity by the State and civic administration on lines of Central and State Governments. Migration of people from villages to cities and also proliferation of slums created problems in urban areas, he observed.

Municipal Commissioner Mrs. Y. Srilakshmi disclosed that of the 400 tonnes of garbage generated in the city about 100 tonnes remained uncleared everyday. Unless the local service organisations and people of each area took up the problem of garbage clearance it would be difficult for the administration to solve the problem,

she said. People's participation was needed to tackle the problem of sanitation. When Exnora, a voluntary organisation involved in motivating people to take up garbage lifting and maintenance of sanitation, was successful in Chennai, the same could be implemented here, she felt. Open defecation continued despite opening of Sulabh complexes and the scheme of low cost sanitation should be taken up by every household to prevent diseases such as malaria. Scientific disposal was needed for disposal of hospital wastes where incinerators could be used. Facilities should be developed in satellite townships to prevent concentration of population in the heart of cities, she suggested.

Professor B. Sarveswara Rao, noted economist and former Vice-Chancellor, Nagarjuna University discussed the pros and cons of growing urbanisation. "Urbanisation in itself is not bad because it is necessary for growth and development," he said. The need to strike a balance between urbanisation and infrastructural and industrial development was underscored by him. Unless there is the complementarity of political and cultural factors i.e., active people's participation and enrichment on the cultural front, urbanisation could result in a rise in crime and violence. Prof. Rao stressed the role of NGO's and service organisations in providing the required support on the cultural front. Urbanisation was imperative for growth and the problem lay in lack of proper balance between urbanisation and cultural development. There was failure on the cultural front with problems of family disorganisation. Neither the Western philosophy and ethics nor the Eastern philosophy and ethics could find a solution to this problem, he observed. Cities were likely to grow still further but amenities were not being created. Between 1950 and 1974, the Central Government totally concentrated on rural area development and provided funds, he said and added that management of slums played a crucial role in urban areas.

INDIA'S URBAN FUTURE

Prof K. Radhakrishna Murthy
(Dept. of Sociology, A.U.)

At the beginning of this century only 10 percent of the world population was urban. But by the year 1950, world urbanization has reached a level of 30 percent and since then the rate of urbanization is fast increasing in the world and reached a rate of 45 percent at present. By the year 2000, fully half of the world's population may live in cities. The urban population in India alone is expected to increase from 194 million in 1985 to 330 million in the year 2000, and to 658 million by the year 2025.

Urbanization in India is operating by strong rural-push but not by urban-pull. The processes of urbanization, industrialization and modernization are by no means in step with each other. About 60 percent of urban population growth comes from its natural increase and the

remaining 40 percent results from migration into cities and graduation processes. As a result, big cities are fast growing at the cost of small towns. The features associated with India's urbanization are semi-rural, parasitic, and unbalanced urbanization. Here urban growth rates are higher than rural growth rates and even higher than the growth rates of total population. The significant feature of the process of urbanization in our country is the urban primacy, metropolitanization, and urban hyperphasia - that is, excessive concentration of urban population in the principal cities / the capital cities / the manufacturing centres.

As a result, the economic base of the cities is very weak. The city administrations are not in a position to have adequate financial resources, staff and technical know-how for dealing with the rapidly deteriorating urban situation. The fact that millions of people are consigned to dehumanising conditions of slum-existence, development which evades social and economic progress of slum population, the deficiency in the management of cities and towns and the lack of adequate institutional structures for urban development, amply justify the existing pathetic urban scene. In many ways, cities have lost their 'Carrying capacity', which may look as desperate association to the phenomenon of urban development and growth. Improving social and economic conditions for all the people and promoting sustainable development is increasingly an urban challenge. The urban future carries many risks for the physical environment and natural resources and for social cohesion and for individual rights. A successful urban future depends on people's participation in civic life activities in a constructive political process.

To avert the impending urban crisis, some of the suggestions are :

1. Urban fertility should be controlled.
2. Creative dynamism be introduced in urban development by involvement of the private sector in the delivery of urban services.
3. Strengthening of the autonomy of Urban Development Authorities by making them financially viable and expanding their legal power.
4. Ensuring that special measures are taken to protect the displaced, the homeless, the street children and the old to ensure that they are integrated into their communities, and
5. Strengthening the role and expanding the means of Municipal Authorities, NGOs, Universities, research and policy oriented institutes and business organizations, enabling them to be more actively involved in urban planning, policy development and implementation.

The key element to the future urban management will be to meet rapidly growing demand for special in-

vestment in the areas of health, sanitation, education and family planning.

URBAN FUTURE - THE CHALLENGE AHEAD

Prof. G. Ramachandrudu
(Hon. Director, Population Research Centre, A.U.)

The Urban Population of India has increased monotonically over time from just 2.59 crores (10.8% of total population) in 1901 to 21.7 crores in (25.7% of total population) in 1991. This level of urbanisation is one of the lowest in the world - 85% in Australia and New Zealand, 77% in Japan, 75% in North America and even in Pakistan 32% of people are urban. Added to the low level of urbanisation, the tempo of urbanisation also has considerably declined which is measured as the decadal gain in the percentage of urban population that was 2.4% points in the last decade 1981-91 as against 3.4% points during 1971-81. The most important reason for slower growth is lower rate of labour absorption in the increased industrial activity.

An unhealthy trend in India's urbanisation is that the urban growth is highly skewed towards class - I towns and cities in which over two - thirds of urban people live and this proportion is rapidly increasing. It is interesting to note that the two fastest growing million plus cities in India are Visakhapatnam and Hyderabad which are growing at the rate of 74% and 67% respectively during 1981-91. The result of this phenomenal growth is gross inequalities in housing, drinking water, sanitation, transportation, use of green open spaces for leisure and recreation. The poor are found in the decaying areas and experience the worst of the pollution which the intense activity of the urban regions produce.

Visakhapatnam city is expected to double its population by 2000 A.D from the level of 10 lakhs in 1991. As the city grows, the result is the growth of slums and slum population, which is estimated to be about 25 percent of the city population. This population may go up to 50 percent just as Bombay and Calcutta experience the situation today. Fortunately, the ODA sponsored slum improvement projects have been successfully implemented in both Hyderabad and Visakhapatnam, which improved physical environment in the slums to a large extent. But this displaces the slum dwellers pushing them again to peripherals and houses are occupied by relatively higher income groups. The city requires huge investments for housing, infrastructure and civic amenities. It is recommended that the introduction of frequent trains from Vizianagaram and Anakapalli and extending them to the Port and Steel Plant would ease the pressure on the existing civic infrastructure.

(Abstract of a paper presented at the Seminar on Urban Future organised by the Centre for Policy Studies on November, 13, 1996.)

HOME CAN BE HAZARDOUS

- Prof. M.V. Venkata Rao

Caves offered shelter to the primitive man : Civilized man evolved and improved the design and construction of his home through the ages, to ensure better safety and comfort. Rising population, pressure for space, with increased population density, and rising poverty have been enforcing certain modifications in construction or improvisation of dwelling units. A small privileged sector of mankind can afford luxury houses. Kings' palaces and five star hotels provide the coveted models for dwelling styles to the affording elite. The large majority, with considerable frustration, is obliged to reconcile with low cost housing and hutments that deserve to envy the primitive man's cave, in respect of quality cost and comfort.

The modern age of pollution has set in. Air pollution is omniscient. Modern man has to add another dimension to his home concept, that is shelter from pollution. Yet with delayed attention, sporadic surveys of indoor pollution have related hazards that, at times, surpass industrial and traffic pollutions of the external environment. The rich and the poor are treated equally by the indoor pollution. Modern technology gives a tremendous boost to pollution in both quality and quantity. Today, man is often impressed that the progress during the last two centuries surpasses, in magnitude, the progress achieved through 30 thousand years of civilization. Unfortunately the same is true with pollution and environmental destruction too.

Home receives pollution from the ambient environment and also generates from within. Dilution of pollution, by ventilation and dispersion, is the only usual antidote, particularly for indoor air pollution. Thanks to the architect, the cost effective designer of the multi storied buildings, a dwelling hardly communicates with nature on one face while the other five faces, including up and down, are air sealed. The open face itself may also be decorated with curtains for privacy. This takes us back to the cave set up, now with indoor pollution generators added up and with windows opening into sewer ducts.

The abuses of indoor physical environment pertain to over illumination and under illumination with excessive contrasts, with degenerative impacts on vision. Noise can only reverberate with poor dissipation inside the concrete caves. Heat flows and temperatures are often left to chance by the architect and the civil engineer. Fly ash and gypsum from industrial wastes going into construction materials for reasons of economy, release radio activity, the monitoring and interpretation of which is too specialised for the construction engineer.

As for the chemical pollution, the Oxide of sulfur and nitrogen from cooking fuel, particulates of ash in case of kulcha fuels, cosmetics, paints and varnishes, adulterated foods, leakages of refrigeration circuits, disinfec-

ants, insecticides, pesticide residues on fruits and vegetables, organic vapours from electrical insulations in gadgets and wiring, fabric dyes etc., make a liberal clandestine contribution. Stored food in refrigerators, instant foods from the market, and numerous pharmaceutical formulations, whose structures and properties are a mystery equally to the manufacturer, dispensing doctor and the desperate consumer, constitute the voluntary component of indoor chemical pollution.

The system cybernetics of biological structures ensures tremendous capacity for adaptation. The artificial nature of the indoor ecosystem is not a barrier for the biological offenders of man. Mosquitoes bacteria, virus, fungus, insects, worms, rodents and other pests and parasites have a time tested heredity that can fool the relatively recent brain power of man. These unwanted intruders into our homes constitute the biological pollution.

Scientific investigations now wonder if the increasing incidences of respiratory morbidities, cancers, neural and endocrinal disorders and other degenerative diseases should blame the outdoor pollution with 8 hour exposure, or the indoor pollution with 16 hour exposure every day. Hence, beware home can be hazardous!

A NOTE ON HEALTH AND COMMUNITY DEVELOPMENT PROJECTS OF SANKAR FOUNDATION

—Dr. G. Prabhakar
Coordinator
Health & Projects, Sankar Foundation

The Tuberculosis Project is gaining momentum with increase in the number of patients attending the Clinics in villages and also at Foundation's Clinic in Visakhapatnam. Now there are around 150 patients receiving free medicines at the clinics. The Foundation is coordinating with all Voluntary Organisations to conduct the screening camps and detect sputum positive cases. The fact that tuberculosis is increasing among the tribals was noticed recently at the Swastha Mel conducted by IDA and VINIS jointly at Narsipatnam, which was officiated by Dr. Narasimham. 18 new cases were detected at the Camp and the Foundation is planning to organise detection camps in the Tribal belt shortly.

Sankar Foundation made a contribution to Sarada Valley Development Samithi, Anakapalle to start a Training Centre for Human Resources Development. The Foundation will be conducting short term courses on Health, for various Voluntary Organisations working in the district, to promote the Vision and philosophy of Community Health. The Foundation also made a small contribution to purchase a Computer for the centre, to strengthen the Women's Bank and the Income Generating Programmes for women being conducted in the villages.

The available data from the World over indicated that infection with HIV is presently the highest risk factor for

development of Tuberculosis. As combined programme for prevention of both, Sankar Foundation is actively participating in the prevention programmes of AIDS, jointly with SPAAD, the Society for Prevention of AIDS and Allied Diseases. The Foundation sponsored a playlet on AIDS at Chodavaram on 27th October and is sponsoring the same at a local College on 30th November and at Ramakrishna Beach on 1st December, The World AIDS Day.

One of the main objectives of Sankar Foundation is Promotion of Family Planning programmes. To give the Family Welfare programmes a thrust, the Foundation is providing additional incentive of Rs. 100/- to each sterilization conducted at Government Victoria Hospital, Visakhapatnam. From 10th December 1996 to 31st March 1997, all cases sterilized at Victoria Hospital will receive additional incentive of Rs. 75/- each in kind and the promotees of the operations will receive Rs. 25/- each in cash. If the additional incentives being given by the Foundation help to increase the number of Family Planning operations more than the previous year's performance, the Foundation will be glad to share the success with the Government departments and will be able to continue the incentives.

In our villages, the high incidence of mortality and morbidity particularly among children is attributed to unsafe drinking water, poor personal hygiene practices and insanitary environment. Sankar Foundation is making efforts to provide borewells for drinking water, construction of latrines in villages and through Health Education at the HRD Centre to promote personal hygiene and sanitation. For demonstration purpose, the Foundation is constructing a latrine at the Training Centre for the trainees. The Foundation is taking up construction of latrines in villages, to inculcate the habit of using a latrine in the pre-school children and to help women who are yet to have the facilities of a latrine in their homes.

The Foundation has made a small donation to the Chief Minister's Cyclone Relief Fund recently, to help the unfortunate brethren suffering in Konaseema.

As a community service project, the Foundation is taking up the repair work of the existing wall on the Bheemil road from the culvert near Appu Ghar to Sagamagar, wherever it is broken and will construct the wall wherever it is missing. As the road has become very hazardous for the vehicles and public, the Foundation is planning to complete the project as early as possible.

AIR QUALITY MANAGEMENT

- Prof. M.V. Venkata Rao

1. Air as Sustainer of Life :

Since the dawn of human civilization, air has been recognised as one of the four basic constituents of cosmos, the other three being soil, water and fire. Science

recognises that life is woven from air using sun's energy. The biomass of plant life borrows more than 90 percent from air in the form of carbondioxide while the soil nutrients and water hardly account for 10 percent of the plant mass. The green pigment in plants absorbs carbondioxide of air to prepare starch, which constitutes the food for all animal life to add to their body mass and also to derive energy. The energy required by life is the derivative of chemical reactions of biomass with the oxygen in air. Thus to create life and to sustain life the role of air covers the major part of the activity. Neutral nitrogen, amounting to 80 percent of air dampens the explosive reactivity of the oxygen, and allows oxygenation of food at a rate that sustains life chemistry. Life on earth is an extremely rare phenomenon in the known cosmos. The credit goes to the quantity and quality of the gas envelope surrounding earth, called the air. Scientists say that air on earth took millions of years after the birth of earth, before it could promote life. To appreciate our intimacy with air, we can recall that 90 percent of our body mass comes from air (not soil), 90 percent of what we eat joins air, expelled through nose, and that 90 percent of us goes to air after we are no more. Thus man is more airy than what is obvious.

2. Threat to Air Quality :

Nature took millions of years to build the air quality needed to sustain life. Man seems to be dwarfing nature's speed, by threatening to alter the air quality to a level that can wipe out all life in a few centuries. Man's history is a momentary blur in the biography of earth. During this short span itself, the composition of air has been altered substantially, in parallel with man's intellectual break through. Since these changes lend towards his own doom, man needs special caution in expanding his technologies.

Today 90 percent of the energy needs of mankind comes from burning coal and petroleum products, releasing pollutants like dust, sulfur dioxide and oxides of nitrogen as by-products. The major output of fuel combustion is carbondioxide, whose percentage in global air has shown substantial increase during the 20th century. Global repercussions like rises in temperature and sea water level, climatic irregularities and land submergence by sea are apprehended with the increasing levels of carbondioxide. The international conference at Rio (Brazil) has even mooted the proposal for rationing fossil fuel combustion among different nations. The implied political overtones of such a move have lead to diverse opinions on the magnitude of global warming by carbon dioxide. While the magnitude is disputed the apprehension is unanimously accepted.

More important than the global air quality, the increasing pollution of urban air needs immediate attention, with the rapid rise in the percentage of urban population all over the world. A large chunk of humanity will

be obliged to carry inert dusts in the lungs as lifelong partners, while the active dusts and gases enter the blood stream and upset the body systems and their functions. Respiratory distresses, endocrinal disorders and cancers are significantly correlated to air pollution levels in several surveys. Considering the fact that man inhales 16 kg of air every day, compared to 3 kg and 1 kg of water and food intakes, the impact of pollution of air on man's health cannot be over emphasised.

3. Air pollution Control Methodologies :

Complete control of air pollution is both uneconomical and unwarranted. Reduction to tolerable limits is the goal of optimum technology. The available methodologies are good enough to achieve this goal, as can be seen from the options listed below

- Raw materials with high pollution potential can be substituted by more ecofriendly materials, atleast in industries located in sensitive areas

Sulfur free fuels and unleaded petrol are the typical examples.

- Industrial process designs and automobile engine designs have been based hitherto only on the cost benefit analyses from the entrepreneur's point of view, ignoring the environmental costs of pollution. The combustion processes in industrial furnaces and auto engines permit considerable improvements from the environmental angle.
- Polluted effluent gases from industries have tail gas treatment methodologies like settling chambers, cyclone separators, scrubbers, filters and electrostatic precipitators. Such methods generally consume only 5 to 10 percent of the product costs.
- The siting of industries and planning of transport systems can aim at minimising the urban air pollution. Where permissible, the industrial effluent releases should be synchronised with favourable micro-meteorological conditions, to ensure the least dispersion into sensitive areas

4. Management strategies :

Air quality management plan should envisage the infrastructures to carry out the following actions

- Problems are to be identified and the magnitudes of the problems are to be assessed, by sampling and analysing the ambient air regularly.
- Control methodologies have to be designed for optimum solutions in achieving pre-defined objective functions.
- Implementation, through incentives, disincentives, and legislations, needs to be organised

"Government is not reason. It is not eloquence - it is a force ! Like fire, it is a dangerous servant and a fearsome master".

—George Washington

- Surveillance and feed back analyses to refine the strategies, should be a continuing task.
- Hazards and disasters from industrial accidents need preplanned strategies of management.

5. Existing lacunae :

While the pollution control criteria and technologies are fairly good, air pollution problems are going from bad to worse for the following reasons.

- The industrial entrepreneurs lack the incentives or disincentives to be persuaded to do the best possible in pollution control.
- Self styled pseudo experts in pollution control technologies, and over enthusiastic ill informed environmental crusaders confuse the issues, preventing the evolution of optimal solutions, with balanced perspectives.
- The responsibility of pollution control is dispersed over several agencies with poor coordination. The Pollution control boards lack powers. The executive heads can not understand technicalities. The public are ill informed or misinformed. The judiciary needs the inputs of expert opinions. Expert panels are not identified properly for environmental issues.
- Political interference and corruption enable the industrialists to ignore the rules and specifications that are meant to preserve the environmental quality.
- The prescribed national standards for air quality are unrealistic and unworkable. Based by scientific logic for a 24 hour time weighted limit for dust pollution is not suitable for a 24 hour dust meter, while so called standards for sulphur dioxide values (some 50%) for motor cars etc. are always available to drive the adverse traffic in such pollution. The pollution control boards are reluctant to take a step in regulating the motor cars. It should be noted that residential changes in urban activity styles will be necessary to drive the pollution control boards. Despite the national standards, the implementation of such standards is a major challenge. The government and the public should work together to achieve the goal of a clean environment.

6. Conclusions :

- Urban air pollution is an ever increasing menace that necessitates stringent control measures sooner or later.
- Prescribed standards of air quality need to be rationalised, removing arbitrariness and unrealistic approaches.
- A committee with appropriate nominees should be formulated in urban areas, entrusted with the responsibility to ensure air quality, with the needed infrastructure and power made available to the committee.
- Policy makers should abide by the recommendations of such a committee.
- Transparency in information and policy making is necessary to betray the defaulters in the industry and among the policy makers.

THE PASSING OF A GANDHIAN

Dr. Digumartni Gopalaswami, an eminent Gandhian and social activist, passed away on July 26 in Visakhapatnam at the age of 81. Hailing from a family of freedom fighters and Gandhians, the popular medical doctor and his advocate wife Mrs. Saraswati Devi were known for their commitment to Gandhian ideals and selfless public service. As a fighter for human rights and social justice, Dr. Gopalaswami was wide awake and engaged in the welfare of the society during his six years of active working public life. Dr. Gopalaswami was a member of the Advisory Committee of the Centre and for a long time member of the Board of Directors of the Gandhi Centre. He was a regular speaker at seminars and conferences and a constructive contributor to the Gandhian legacy. His passing away is a great loss to the Gandhian community. His wife, Mrs. Saraswati Devi, passed away on July 26, 1981, at the age of 81, after a long illness.

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