

Whither imperatives of environmental justice?

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The disproportionate distribution of environmental risks among the population is known as environmental justice, environmental equity or at some instance environmental racism. All these terms in fact define the status that the poor suffer greater exposure to environmental pollution than other communities. Environmental justice, however, implies that no person or group is exposed to a disproportionate share of negative environmental impact from the execution of environmental programmes. This paper focuses on developing countries – whether in the context of undesirable population increase and not so well-judged planning decisions – any initiative to achieve environmental justice is feasible. Examples are quoted from the USA to show how the initiatives could be designed.

New Mexico and Texas colonies border projects

Colonies are Hispanic rural neighbourhoods and unincorporated subdivisions in or near cities in Texas, New Mexico, Arizona and California along the US–Mexico border. Between Texas and New Mexico, there are about 1200 colonies with an estimated population of 300,000 people. Colonies are characterized by substandard housing, inadequate plumbing and sewage disposal systems and poor access to clean water. The common threat is the potential and immediate health threat due to inadequate or lack of safe potable water and sewage disposal. Under grants from the United States Environmental Protection Agency (USEPA), nine facility plans and four construction design plans have been completed for the 13 new wastewater collection and treatment systems to serve the colonies in New Mexico. Such interventions regarding wastewater will render the potable water safe.

Pennsylvania rule and enforcement projects

The city of Chester has among the highest concentrations of industrial facilities in Pennsylvania. Chester hosts a number of waste-processing plants and two oil refineries. All solid waste from Delaware county is incinerated in Chester and at least 85% of raw sewage and associated sludge is treated there. A large infectious medical waste facility was also recently sited in Chester. Many of the plants are located in close proximity to low income, minority residential neighbourhoods. In fact, a clustering of waste treatment facilities have been permitted within

100 ft of over 200 Chester homes. Residents of the city are concerned about the health effects of living and working amid toxic substances and complain of frequent illness. Many Indian cities like Kolkata, etc. have similar environmental conditions as observed in Chester. Of all the cities in Pennsylvania, Chester has the highest infant mortality rate, the lowest birth rate and among the highest death rates due to certain malignant tumours. In response, the Environmental Protection Agency (EPA) has initiated two studies addressing the environmental regulatory and pollutant impact/risk exposure issues. The objective is to study the existing and the proposed facilities in the Chester area. On the basis of the investigation, EPA has focused enforcement actions and issued field citations to a number of underground storage tanks located in and around Chester. Other enforcement related activities are air-toxic reduction and compliance, innovative settlement for toxic emission violators and multimedia compliance reviews. Additionally, a study has been conducted by a team of toxicologists in tandem with state and local officials to assess all available environmental media and human exposure pathways. Results of the study are displayed through a Regional Geographic Information System overlying industrial facilities data, waste generators and air emissions data.

It is relevant here to mention that the genocentric view in the context of the environmental health research that bad genes in human body cause disease is not acceptable. In its place, integrating 'omic' approaches, including proteomics and metabonomics with toxicogenomics is the way to untie the Gordian knot of gene–environment interaction. The environment, it is now held, plays a bigger

role in disease development than thought of previously. Genetics loads the gun but it is the environment that pulls the trigger. Instead of manipulating the human genes, it is easier to understand how an environment agent interacts with a gene and uses that information to develop molecular interventions.

In a similar fashion, a study of the existing environmental and demography-based databases in Baltimore city, Maryland, USA to identify and evaluate the human health and ecological threats for targeting risk reduction/prevention has been taken up. Quantitative and qualitative risk assessment methods have been applied and displayed through the use of a Geographic Information System. Six areas of concern identified are lead; hazardous materials incident; fish consumption/toxics in the harbour; air toxicity and the latter elements/compounds; ground level ozone; and indoor air and radon.

Individual teams have been formed to address each issue. They have been assigned the responsibility of developing action agendas to address the overall goals of risk reduction, pollution prevention and education for each risk area.

The Office of Environmental Justice has been integrated into the Environmental Pollution Agency. On the basis of the findings of the investigation in specified areas, prescriptions for compliance are drawn out and enforced for implementation of environmental justice.

Chicago programme

The south-eastern sector of Chicago has a mosaic of predominantly poor/working class. This area has a high unemployment and multiple environmental problems, including a concentration of

waste disposal sites, heavy industries and plenty of urban powerfields. In this part, a public housing facility accommodates a huge population of low-income African Americans surrounded by a number of landfills, incinerators, oil refineries, paint factory, steel mill, sewage treatment plant, chemical plant, scrap metal yard, a lagoon, a sludge bed and a free-way. Naturally, this locality has severe environmental problems. Luckily there is an environmental concern in the peoples' mind. The environmental initiative with the goal of environmental justice brings together government, industry, community and environmental non-government organization (NGO) groups. The representatives decided on a target, which includes:

- The Agency for Toxic Substance and Disease Registry will conduct health assessments of the said community.
- The Department of Housing and Urban Development is developing residential lead-based paint removal projects and other environmental improvements.
- Chicago's Department of Environment and Illinois Environmental Protector Agency are working together to ensure tougher enforcement and compliance of existing environmental regulations.

The Indian context

In the Indian context, though there is a central law like EPA 1986, and Notification on the Environmental (Protection) Rules, 1986 there is no office or act on environmental justice. If it were, timely justice would have been done to the victims of the Bhopal gas tragedy. Neither any state has yet planned any structural framework on this aspect. In developing countries like the Republic of China, there is no movement to introduce the Environmental Justice Act. It is high time that the Indian Central Pollution Control Board and the Ministry of Environment and Forests take a stand on environmental justice. The State Developments may conform later. However, from the point of view of managing the enactment, there is a snag where the shoe pinches especially in a developing economy. It has to be ensured that the popu-

lation does not overburden the earth. Somewhere there is an elastic limit/threshold in nature and it is advisable not to cross it. The human population must be below the earth's carrying capacity. It is time that the concept of environmentalism is widely held, but the time has come when it has to be profoundly held. To impart proper environmental justice, and also to make environmental management effective, environmental communication has a key role to play. Protecting the environment and public health is a multidimensional task where everyone plays an important part. How the environmental issues and concerns are communicated will shape and impact the direction of environmental policies. For successful implementation of protective measures to maintain the environmental quality, the state and central government departments (ministries and pollution control boards, municipalities) must fulfil some statutory requirements in environmental communications. This calls for interaction with the host of varied organizations and individuals like NGOs, industries, interest groups and individual citizens for environmental protection. The requirements are to be formulated by the Parliament of India and government agency/ies made responsible for the task must abide by the rules. The latter may encompass the following:

- Make people aware of the baseline in environmental quality through effective man-communication.
- Let people of the concerned locality know of the proposed remedial action plan with a brief analysis of the problem with respect to the baseline.
- Provide an opportunity for the public (individuals/NGOs/business groups/interest groups/industries/tribal bodies, etc.) to comment on the plan.
- Provide an opportunity for a discussion between agencies and the public.
- Make out a response to significant public reactions/comments.

The duties of the public in environmental communications are: when a potential pollution problem is observed/envisaged, a critical observation must be made and the proper authorities informed. If the

authorities do not pay heed, a citizen's lawsuit may finally be initiated.

The government should look into how citizens can take action on environmental violations in their localities and surroundings and work out the category of violations and norms of approach.

The government must ensure availability and easy accessibility of means for the public for environmental communications (like toll free phones and information lines, etc.), which is crucial in establishing an effective and purposeful communication and consequently will pave the way for an efficacious environmental management. An operating structural framework for environmental management has to mature from a proficient environmental communication.

On the other hand, in a developing country, poor communities will have to be convinced of their role particularly in controlling the explosion of population, whereas the rich need to control their greed for consumption. Enforcement of the mediatives may often be required. And the whole activism should be kept above political power play. Otherwise, a country, a region, or a locality cannot reach any stage in environmental sustainability.

Suggested reading:

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