

Managing the Environment

ENV. 151

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The kinds of environmental problems we get depend on the kinds of development options we choose. The primary causes of environmental degradation in any society lie largely in the consumption patterns it adopts. Consumption patterns are determined by the kinds of demands society makes for various goods and services, each of which require inputs from the resource base or sinks in the environment. The goods and services can be made in a variety of ways and the production systems that society adopts can further aggravate the pressure on the environment. Both the consumption patterns and the production systems are, in turn, determined by the distribution of income, cultural practices, historical background, market behaviour and a host of other factors.

The immediate causes of environmental destruction are too many products – too many big houses, too many cars, too many conditioners, too many appliances, too much packaging, too much meat – demanded by too many people. The intermediate causes that lead to these immediate causes lie in the choice of technologies, economic systems and instruments, and industrial and resource management policies. And the ultimate causes that produce the intermediate causes include the attitudes, mindsets and values that promote high material consumption and discourage living within the limits set by nature.

Affluence, through the demands it generates for industry and resources is, of course,

the primary engine of environmental destruction. Almost all the major environmental issues of today are the result of mindless growth of industry and natural resource exploitation by those who are now, as a result, financially rich. And it is because of the limitless growth of the demand for materials and energy of this minority (who exist both in the North and the South) that many of the planet's non-renewable resources – fossil fuels, minerals, biodiversity, etc. – are now under such threat.

But even in the most sympathetic view of poverty, whether it comes from a socialist or a romantic urge, we must recognise the damage large numbers of poor people can cause to the resource base, particularly in the fragile ecosystems they usually find themselves in. The exigencies of survival often force them to (under)mine even the most renewable of resources to the point where they become non-renewable. And their limited financial resources prevent them from choosing more sustainable options, whether in the city or in the village.

Poverty, moreover, is a major causal factor in population growth, which leads to further demands on the environment as new generations come into the job and consumer markets. For birth rates to come down in a society, two conditions have to be met: couples must want smaller families and reproductive health services must be easily accessible to them.

Since the development trajectory followed

by our country has left the vast majority of our people untouched by the benefits offered by the modern economy, it is only to be expected that we find ourselves in a poverty trap. Poverty leads to rapid population growth and rapid population growth propagates poverty. It is this vicious cycle that accounts for the fact that there are twice as many marginalised people as there were in 1947. The fact that we have lost so much of our forests, waters and soils is a direct result of the fact that our nation's investments over the past 50 years hardly ever addressed the fundamental issues to be solved by a poor nation: education of the young, health of the women and jobs for the marginalised.

It is not difficult to imagine economic systems that can produce better all round economic and social development than we have been able to achieve. And actually quite difficult to construct one that multiplies poverty continuously over 50 years – except possibly for professional economists who seem to be fairly good at it. Doubling the number of poor people in 50 years probably takes conscious doing. Could it be that our economy has generated so much poverty by design – perhaps because it needs it? If so, they have been unquestionably successful.

In this context, there is no point in talking about the dangers of poisoned air, vanishing forests and drying rivers since they are the logical outcome of the patterns of inequity and exploitation we have set up in our single-minded pursuit of our lop-sided "development." We needed to create edu-

Selected Watersheds of India (1998)

Fresh water watershed	Population density (per sq. km)	Percentage				
		forest	Developed Area	forest lost	Arid area	Protected area
Brahmaputra	173.8	18.4	2.5	73.2	0	3.7
Ganges	374.6	4.2	8.0	84.5	26.0	5.6
Indus	145.4	0.4	4.4	90.1	62.6	4.4
Krishna	248.2	2.8	8.4	80.2	41.3	4.2
Narmada	191.9	0.8	7.6	71.3	25.8	3.9

Source: World Resources Institute, 1998-99



cation for our children, health facilities for our women and work for the poor. What we got was five star luxuries for the rich. So, why blame the poor? I have overheard government officials strolling down the corridors of power referring to the poor as "them" (as distinct, presumably, from "us," to whom the country really belongs) and asking how long will the poor continue to be a millstone around our neck. The millstone around the neck of India is, actually, the rich and their friends who make the policies of our country.

Ultimately, the roots of our environmental problems are precisely the same as those of our social and political problems. Air pollution in our cities and lack of drinking water in our villages are caused by the same fundamental factors as the alienation of people in our society and the corruption of our politicians and bureaucrats. Despite our denials and invocation of great traditions and national culture, the India of today is defined almost universally by narrow, short-sighted, parochial self-interest. Those who attain positions of power place themselves, and their families, above the law – and now there are enough of them to do real damage to the future of our country. It appears unlikely that any corrective measure can now solve the problems we face short of a thoroughgoing revolution. Unfortunately that could involve unpleasant consequences for those who have usurped the power to run our affairs. And for many innocent bystanders as well. The only grace that saves them from fear of this inevitability is that they are too much absorbed in the pursuit of their self-interest to notice it.

Some Solutions

To those of us who are genuinely concerned about making India a better place for ourselves and our children to live in, things look quite bleak. The country, with all its strengths and achievements appears to be on a self-destructive trajectory, accelerating towards economic, social and ecological oblivion. Which of these disasters comes first is not important – massive political upheaval will surely be the initial

manifestation for all of them. And while this might well provide the sudden, discontinuous and possibly violent change needed to effect improvement, it will not necessarily produce an outcome that is best from everyone's point of view.

We need to explore other ways into a more acceptable future and work out strategies that could lead to a different outcome from the one that currently seems inevitable. And such strategies can be meaningful only if they pass the acid test of practicality, both in the relevance of their goals and in the identification of the action needed, together with who will carry it out. Thus, they must specify the outcome expected, the means needed to achieve it, the actors who must take responsibility and how they could be persuaded to do so, the obstacles to moving forward and how they can be overcome and a specific plan of action. To be credible, they must also describe the organisational framework that will champion and take responsibility for the entire process. In this sense, statements commonly heard these days such as "if only the politicians were honest...", "everyone should stop corrupt practices together, on a given day ...", "government must..." Without specifying how these undeniably exemplary goals will be attained, the statements are totally meaningless, wishful thinking – and without any value.

To bring about the change needed, two significant possibilities present themselves. The second possibility would depend on the sudden appearance on our political scene of wise, charismatic and courageous leadership. Such leadership, once it becomes accepted widely, could certainly help to reorient the nation in a more benign direction. With such a reorientation, a country with the human and natural wealth of India could quickly become a model for others to emulate. Unfortunately, the likelihood of this scenario is very low. Wisdom, charisma and courage are a rare combination and the frequency of their appearance on earth is usually measured in centuries and millen-

nia, not in years and decades. And we have already had more than our share in this century. Moreover, such leadership has historically tended gradually to gravitate towards autocracy and fascism, a cure that could become worse than the disease. Again, this option is weak on the acid test of practicality unless the proposer is able to identify a leader who is wise, charismatic and brave.

The third way forward is the one proposed by Development Alternatives and People First. It comprises five broad categories of intervention that could be initiated by a group of like-minded people who simply agree on the basic premises and to take responsibility for specific parts of the agreed agenda. This option comes nearer to satisfying the acid test of practicality than most of the solutions currently on offer and has the advantage of careful analysis and wide public debate to support it.

The five types of intervention or changes that can be made to achieve any kind of societal change are:

- Technology
- Economic instruments and policies
- Institutions and governance
- Knowledge structures
- Value systems

This list forms a hierarchy of interventions, presented here in ascending order in terms of difficulty in implementation, as well as in the depth and duration of impact. To turn our country around on the ecological, economic or social and political fronts, a consistent set of changes will need to be made in each of these areas:

I Technology

Our current technology choices, dictated in large part by the imperatives of our misguided desire to participate in the global economy and borrowed from elsewhere without adaptation are not necessarily suited to our own circumstances. Large scale industries, fossil fuel based and centralised energy systems, motorised and personal transportation networks and

chemical intensive agriculture have, at best, a limited value for an economy like ours. They are virtually useless for the eradication of poverty or the regeneration of the environment. They are capital intensive, create few jobs, exclude the poor and destroy the environment. In the context of India, they have led not only to great economic disparity and social inequity, but also to corruption and urban decay.

Appropriate technology – the kind advocated by Mahatma Gandhi offers much better and more sustainable solutions. It emphasises small scale, decentralised and locally owned production systems. It prefers the use of labour over machines, renewable over non-renewable resources, public rather than personal modes of transportation. By its nature, it is technology that is the slave, not the master of people.

2 Economic instruments and policies

To encourage the wider use of appropriate technology, we simply need to introduce fiscal measures that promote wider participation in the economy, creation of jobs and conservation of natural resources – all stated objectives of every government since independence. However, to achieve this widely accepted goal, the actual priorities of those governments would have to be more or less inverted.

Currently, even when they are not distorted by the massive corruption that accompanies our entire structure of governance and economic control, these policies tend to promote practices that increase economic inefficiency, social inequity and environmental destruction. With the corruption in place, these tendencies are compounded many-fold. Fiscal policies are also needed to encourage entrepreneurship and institutional initiatives that are geared to the needs of sustainable development. Details of such policies have been worked out by numerous civil society and academic researchers.

3 Institutions and governance

There is perhaps no intervention of greater

importance than putting people back in charge of their lives. Once again, Gandhiji comes to the rescue with his concept of Gram Swaraj. The powers and decision systems of governance now need to be turned upside down, letting them flow from the village Gram Sabha to the district, state and national governments. To make such a system work, other pieces of the institutional jigsaw must also be in place – particularly mechanisms to ensure transparency, access by the public to information and the right of people to participate meaningfully in decision-making. And one has to accept the inconvenient conclusion that for all this to happen may need some fundamental changes in the constitution, not simply some quick fine-tuning in our systems of governance.

To ensure this, we need to ensure that the media continue to be free and active, and the civil society is strong and independent. From his studies of 19th Century Italy, Professor Putnam of Harvard University has shown dramatically how strong the linkage is between the health of democracy and the vibrancy of the voluntary sector. India needs to encourage rather than hamper the the work of its civil society.

Our decision-making frameworks are totally incapacitated and in a sense petrified – they prefer not to take any decisions. For instance the Ministry of Environment not only has limited competence but is also continually at loggerheads with the Pollution Control Boards. And in the vacuum created by Ministry of Environment's inability to take decisions, the Supreme Court has now stepped in and is issuing ad hoc orders such as "No more bricks" in a country where the official number of homeless families is more than 30 million. And in the meantime, our government officials are more interested in their extra-curricular activities than in carrying out the tasks assigned to them.

4 Changing the knowledge structures

Despite our nation's long tradition of learning, our present dominant knowledge struc-

tures have the dubious distinction of being borrowed entirely – but incompetently – from the West. Our educational systems are essentially Cartesian, linear and narrowly conceived and have very little to do with the needs of 20th century India. To take India into the 21st century, our structures for learning, skill building and research need to be completely different: universal, bottom-heavy, trans-disciplinary and multi-faceted.

Given the failure of our system of education to ensure that every child receives at least some meaningful education, we should also invert our priorities in education and give the highest priority to funding primary education.

Given the faultlines in our knowledge structures, research in India is severely limited – it is almost entirely imitative and reactive. Typically, the research revolves around either disproving or agreeing with a paper published abroad and then opting out of society and the real world. To work on issues of practical interest, let alone practical interest in the Indian context, is considered unacceptable. This is not so even in the U.S., the country which supports by far the largest amount of "blue sky" research. Even at a prestigious university like Harvard, more than 60 per cent of the research work is directly and visibly geared to practical problems of the country, 30 per cent for issues of concern to the State of Massachusetts and 15 percent to those of the host city of Cambridge.

5 Changing our value system

Our current value systems seem designed to self-destruct the nation. Therefore, our values towards each other, towards machines, towards nature and our sense of responsibility to minimise waste, pollution, etc. need to be altered radically to make a systematic and thorough assault on the problems we face currently.

This task is only possible through religion. We need to bring religious leaders on board and initiate a dialogue to get the message across.