

## **Environmental Ethics In Development Projects**

In India Development activities started with a new vigour and direction after 1947, when the country became independent. Panditji taking a leaf out of the several developmental pattern, initiated the Five Year Plans with accent on irrigation, power, agriculture, metallurgy, fertilizer plants, Heavy Electricals and machine tool factories. These Five Year Plans, keeping in view of the security threats from outside, saw considerable investment in the three arms of defence and defence production units. Now we are in the Eleventh Plan and the emphasis is on infra-structure, education, health and industrial development. All these development activities took a heavy toll on our natural resources like forests, water bodies, rivers and environment. Ethical considerations merit serious review of our developmental activities as they make major dents in environment and the lives of tribal population. This article is devoted to two major entities - Water and Forests.

### **River Water Pollution**

The major cause for river water pollution is urbanization and human settlement along the banks of the rivers. Untreated sewage, effluent from distilleries, tanneries, chemical and fertilizer plants and slaughter houses discharged in the rivers make them polluted to

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the extent of being unfit for bathing. Clean water available a few decades ago has become a premium and is only available in bottled form. These contaminated water needs extensive treatment running into crores of Rupees as are evident by the amount spent on cleaning rivers like Ganga and Yamuna without any tangible benefits. These rivers are the main sources for drinking and extensive treatments are required to make them potable.

In earlier times water resources were considered as public property and it naturally fell upon the enlightened leaders of the community to safeguard this precious resource. With Government taking over the functions of water supply, community interest and participation dwindled and with no control on the number of habitations, towns, cities, chemical plants and commercial establishments and their untreated effluents found a way to these water bodies. Now the pollution of river water has become so serious it requires the concerted actions of the Government, industries and monitoring agencies and people at large to prevent the inflow of untreated effluents. The amount involved for sewage treatment plants are also

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considerable and they are to be spent wisely to ensure proper purification of river waters to a reasonable level of purity.

### **Sacred Rivers**

River Yamuna is considered the most polluted and is a source of water for our capital city Delhi. Ganga though pristine in places like Gangotri, Rishikesh, etc., when she enters the plains are saddled with untreated sewage, effluents from tanneries, agricultural fields, etc., with the result during religious festivals when millions take bath in places like Allahabad and Varanasi their health and well being are in danger. It is a sheer miracle that no serious diseases have been reported so far. The river Cauvery considered to be the most sacred in South India is contaminated with toxic chemicals, report the "Deccan Herald" In its issue of November 2007. Chemplast a P.V.C. manufacturing unit situated off Mettur in Tamil Nadu, has been discharging toxic, chemicals through their effluents. The Chennai based Community Environment Monitoring Committee (CEM) in their report say that 52 toxic, some of them carcinogenic, are contaminating the river.

### **Ground Water Pollution**

Farmers in 15 villages of Bhavanagar District of Gujarat went on a relay fast in March this year protesting against land allotment to detergent manufacturers 'NIRMA' for construction of a Cement Plant and lime stone mine near Mahuva Tehsil reports the journal "DOWN TO EARTH" in the issue of March 15<sup>th</sup> 2010. The villagers contention is that the farm produce in the area is high enough to sustain 51 vegetable dehydration plants which can employ 10,000 having an annual turn over of Rs.300 crores.

Plachimada in the Palakad District of Kerala is another instance where the ground water resources have been depleted by the production of Coca Cola to such an extent water is not available for the residents of the area. They have now sought for compensation and closure of the plant. These are all instances of development totally devoid of environment ethics.

### **Displacement of people for construction of Dams**

In the 1950's when I was attached to the Ministry of Irrigation and Power, Govt. of India it was my schedule to visit major irrigation and power projects of the Eastern regions of India, viz., Hirakud in Orissa, Mayurakshi in West Bengal, and all the Damodar Valley Hydro and Thermal power projects. It was with a great sense of elation I saw the multitudes of people working in the "temples of modern India" the foot print for other multipurpose river valley project to follow. Little did I think about the displacement of people in the upper regions, their unsettled future and the loss of forests and bio-diversity of the sub-merged area. The only figure which stuck in my impressionable age was that of increased agricultural production and the added up power generation. The social and environmental costs registered in my mind only when the resettlement of displaced persons from Narmada Valley came up and pioneered by Medha Patkar – Narmada Bachao Andolan spearheaded by her. Same is the case with Tehri Dam on the river Bhagirathi in Uttarkhand and the consequent submergence of a bustling township.

In Kerala when the State Government wanted a hydro power unit in Kunti River submerging part of silent Valley a hot spots of Bio Diversity, home for rare flora and fauna, agitation from environmentalists stopped the Project. A recent newspaper report indicate that the proposed Chalakudy Hydro project, the seventh along the 145 km journey of the already dammed river would submerge 140 hectares of prime forest land which is home to diverse species of fauna, including the great Horn Bill and the Asiatic elephant. It was also reported that 104 species belonging to 34 families of fish will be endangered with the construction of the proposed dam.

### **The Fall out from Large Dams**

Despite substantial evidences assembled by the World Commission on Dams in the year 2000, about the problems that are created by dams exceeding a certain size, the thrust of our Government is to pursue construction of large dams as a preferred strategy for meeting the country's irrigation and power needs. As on January 31<sup>st</sup> 2006 the installed capacity of 254 hydro electric power stations constructed in various parts of the country is 31754.45 MW. It is a common knowledge that this capacity can be achieved only at peak levels of water reservoirs. The reduction of power from the year 1994 – 2004 is around 31 per cent. The Govt.of India plans to add 5040 MW of hydro power every year to reach a peak level of 1,55,228 MW in the year 2031-32. The fund requirement is estimated to the order of Rs.30,000 crores every year as per present level for the generation component alone. Other fall-outs are displacement of 0.67 million people each year and submergence of 1,00,000 hectare of land including 40,000

hectares of forest land (Survey of the Status of Environment 2006 – The Hindu).

Similar is the case with large dams constructed for irrigation purposes which have never achieved the targeted areas of irrigation and many of them flooding the areas because of faulty laying of canal systems. In spite of the potential created by these dams, farmers mainly depend on the ground water resources for tiding over their agriculture short-falls with the result the ground water table has gone down badly. Except in a few cases where rain water harvesting structures have been constructed the ground water levels have reached dangerous depths. This is a dangerous situation and the answer is concerted action in rain water harvesting.

### **Forests**

Indian forests range from ever green tropical rain forests of Western Ghats and Andaman to the dry alpine scrub, high in the Himalayans. Between the two extreme there are semi green rain forests, deciduous monsoon forests, sub tropical pine forests and temperate montane forests. These forests are habitats for wide range of flora and fawna, notable among them being the national pride Tiger and Peacock. These forests also provides a homeland for various tribal population who have made forests their abode for thousands of years. But with the multifold increase in population in other areas, the forest cover has dwindled over the years and the pressures of land, livelihood and development over the years have taken a toll on the forests and their inhabitants.

Mining has created large swathes of red moonscapes in Jharkhand. Landscapes and

natural beauty have been totally altered in Jharkand, Orissa and Bellary regions of Karnataka. Railways passing through forest areas have mowed down many elephants in Assam and dams in Subansiri have submerged wild life areas. Roads cutting across National parks and forested areas are threats to wild life movement in search of food as in the case of tiger which need large tracts of land for their movement and survival. In spite of 25 tiger reserves the number of tigers during the last two decades have been dwindled from 3500 to 1500 as per recent census. Even at this juncture there is a face off between the Ministry of Surface Transport and Ministry of Environment and Forests as their interests are divergent for construction of National Highways through forests and wild reserve areas.

In the year 2002 Justice Arigit Pasayat of the Supreme Court declared "By destroying nature, man is committing matricide having one way killed the Mother Earth". Chief Justice Venkatachaliah of the Supreme Court was equally clear in enunciating "I place Government above big business, individual liberty above Government and the environment above all". In spite of these pronouncements from the highest judiciary, encroachment and destruction of forests are taking place in the name of development.

### **Forests and Climate Change**

As per the report of I.P.C.C. forests offer one of the cheapest, most efficient and immediate solution to the world to prevent global warming. Apart from carbon storage and tranquility, their services include water storage, rain fall generation, climate

buffering, conservation of bio-diversity and soil stabilization. They moderate the flow of rain water limiting floods in the lower regions and prevent land slides. It takes centuries to create forests wealth but a few days for destruction. These great assets of the country call for preservation.

### **Forests and Tribals**

Ms. Arundhati Roy in her seminal essay published in the 'OUTLOOK' weekly dated 29<sup>th</sup> March 2010, says that the tribal people in Central India have a history of resistance that predates Mao by centuries. The HO, the Oraon, the Kols, the Santhals, the Mundas and the Gonds have all rebelled against the British, Zamindars and money lenders and the establishment of the day could never conquer them. She adds further that the Indian Constitution adopted in Parliament in 1950, was a tragic day for tribal people. The Constitution ratified the colonial policy and made the Government, the custodian of tribal homelands. Overnight it turned the tribal population into squatters in their own land. It denied them their traditional rights for forest produce and criminalized their way of life. She says that in exchange for the right to vote, it snatched away their right to livelihood and dignity.

Even in progressive States like Kerala where tiller got his right to the land, the policy of reservation in jobs secured the rights for the backward communities, tribal right to own land is yet to materialize. The agitation spearheaded by tribal leader Janu needs special mention in this context. In all the development schemes undertaken after independence, the tribals are the most affected

and they do not get a place for their settlement after their displacement. Now the major threat to their livelihood, habitation and security is the thrust on mineral rich areas located in forest hinterland by big business and industrialists.

Chhattisgarh, Jharkand, Orissa and West Bengal have signed M.O.U.s with Corporate Houses and Multinational Corporations worth billions for steel plants, power plants, aluminium refining and processing plants and Mines and in the process the tribals living in the regions are the worst affected. No wonder they have taken up their causes and unfortunately so through Maoist leadership. The problem has to be addressed from their habitation, livelihood and welfare aspects so that lasting solutions are found failing which the establishment will continue to be at logger heads with the affected population endangering the security and sovereignty of the State.

Reports from journals like "Down to Earth" have brought out serious lapses by the monitoring and controlling authorities of the wide spread illegal mining of the forest area by unscrupulous mining overlords. Excessive mining transformed the area to waste lands while the prospective agencies wallow in richer and opulent life styles. Govt. of the day both in the States and Centre should ensure that these natural resources are not depleted by these unscrupulous entrepreneurs. Some of them are in very high positions and they control a few of the State Governments. Judicial interference appears to be the only solution if the politicians and bureaucrats do not stop the carnage.

## **Sustainable Development**

Are we going on correct lines is a question which comes first to my mind. After more than sixty years of planning and development the shortages of power, water, essential food items are persisting mainly due to faulty implementation. From the British time to the present day the development pattern adopted is top down Centre to States to District to taluk down to the people. The chain has many weak links especially lack of commitment and too much of corruption. Results could have been better if the participation of people from bottom to top was initiated for effective implementation. The need of the people must have been better addressed and they would have ensured better and tangible results. Whenever communities have organized themselves there are results for every one to see.

Another worrying aspect is that development of metropolises and mega cities is taking place without any regard for sustainability. A case in point is Bangalore. Deccan Herald dated 28<sup>th</sup> March 2010, quotes a report from the reputed Indian Institute of Science (IISc Bangalore) which indicate that increasing built up area, rapidly depleting greenery and over exploitation of ground water resources are threatening the city dry and dead. Between 1973 and 2006 the city's ecological degradation was 66 per cent. The area covered by the water bodies is reduced by about 489 hectares and the built up area has shot up by 632 per cent from the year 1973, much of which took place between 2006 to 2008. No wonder with the advertisement appearing in Newspapers about construction of multi storied apartments in erestwhile

green locations every day, the future for the garden city is bleak. While the State Government wanted all the residents with site measuring 60' x 40' to have rain water harvesting (RWH) installed, we are yet to know what the multi-storied apartment builders are doing? Not a single apartment has mentioned that they have commissioned R.W.H. and the bore wells from where they are drawing water are being recharged. Is it not mandatory for them to ensure sustainable water supplies? Why the State Government and the people occupying the apartments do not ask this probing question? It is sheer indifference.

India's huge rural population is directly dependent on climate dependent resources

–the forests, the agricultural land, grasslands, etc., which are under threat by water shortage and flooding. This endemic situation need be addressed with the help of experts to stop this recurring problem, if necessary with transparent public and private participation. It cannot be left only to politicians and bureaucrats. Harness of renewable energy, clean energy sources, protection of depleting national resources, water and green cover retention are all sustainable schemes to be implemented with Public-Private participation and, therefore, calls for new initiatives and leadership for development with a strong ethical content. Future is at stake if the present situation continues unabated.

*Mahabharatha mentions that four types of people suffer from sleeplessness: Thieves; those who have powerful enemies; those with unfulfilled desires; and those who have lost everything.*

*If one were to rewrite the epic now, one would be forced to add “students” as the fifth category.*

*Unlike in olden days where education was a simple daily chore, it has become a nightmare with existing hard-hitting competition.*

*“Sleep is the best meditation” says a modern philosopher. Sleeplessness (called insomnia) has four facets:*

*1. Not being able to sleep on getting into bed; 2. Waking up suddenly in the middle of the night and inability to sleep again 3. Being unable to 'stay in sleep'; 4. No refreshed feeling on waking up in the morning. Students require eight hours sleep and elders need seven hours.*

*If you are deprived of sleep for two to three days, you can compensate with a deep sleep the next day and feel fresh, but continuous deprivation of sleep leads to sleepiness during the day, a nuisance that weakens your productivity, concentration, memory and slows-down your reflex actions and decision making power. It also leads to physical problems like cold and other diseases.*

*In fact deep sleep for a few hours gives the satisfaction of complete sleep.*

*Great people follow it and avoid hyper-somnia i.e. spending more time in excess sleep.*

*Sleeping pills aren't meant for long term use. They cause side effects and even rebound insomnia. Instead manage your stress and anxiety that are the main reasons for sleeplessness.*

*Do you know that stress and time management go together? Complete your schedules in time and sleep at the same time every day. A consistent routine before bed sends a signal to your brain for better sleep.*

*Reading a book for few minutes before sleeping is good.*

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