

Session II LOCATION SITING AND LICENSING OF HAZARDOUS INDUSTRIES

Two major standpoints have emerged in these deliberations. In one, industrial development has been considered unquestioningly desirable, with the need to curb the negative fallout by an appropriate location policy. The existing models of location have accordingly been discussed. It is to this end that Mr. Mirashi has presented the British Model of location. In line with this perspective were opinions, which he presented other norms of location or suggested reliance on expert geographers to formulate the location policy.

Dr. Chhatrapati Singh who questioned the equivalence between industrialisation and development presented the other perspective. To that end he specially underscored the fact that an ecologically rich area is described as a backward area and economic incentives provided to promote its industrial development. Dr. Singh wanted it to be appreciated that such industrial development would destroy the ecological richness of the region and would be contrary to the professed commitment of protecting forests. He pleaded for the retention of a certain percentage of forest cover and thus highlighted the dichotomy between the industrial and environmental policy.

A number of interventions brought to the fore the impossibility of distancing the industrial from the residential sector. In the sense that human habitation tended to conglomerate around the industrial belt. The linkage between infrastructure and industrial location was also repeatedly made.

On the question of relocation a number of speakers felt that this was a strategy whereby the problem was transferred and not faced. The transfer of hazards from one region to another did not minimise them and could not be a substitute for norms of safety, hygiene, and quality control.

Remarks from the Chairperson, Justice Umesh Banerjee

There should be a balance between environment protection and development. This is because we cannot afford to have a half clad or a half-fed posterity. Neither we can allow our posterity our children, our grand children should be unable to breathe normally. Location, siting and licensing of hazardous industries ought to be discussed in such manner so as not to thwart the progress of the country. Progress means industrial progress. Before an industry starts an impact assessment is required. It is not all industries, which are polluting but still there should be an impact assessment report from all of them.

Encroachment of Wetland not permissible

The entire thrust of challenge in the petition is in regard to the maintenance of wetlands in the eastern fringe of the city of Calcutta.

It is on this factual backdrop that the instant matter shall have to be decided by the Court as to whether further encroachment of 784 acres of Calcutta's wetlands will lead to such a degradation of environmental conditions so as to have its toll on the society. Admittedly, as appears from records, Calcutta's wetlands comprised of fishing ponds popularly known in Bengali parlance as 'bheris' and pisciculture admittedly to a substantial extent, takes place in that wetland area through which a good number of people earn their livelihood and it is, therefore, seen that these wetlands remain not only for the purpose of environment but for economic purpose as well.

Wetland is precious, wetland ensures to the benefit of the society at large and wetland assists mankind to live in a cleaner and purer environment - which in my view, one cannot afford to lose. Neither can the Court of Law lend assistance to contra-belief or contraction of a State Agency. Wetland acts as a benefactor to the society and there cannot be any manner of doubt in regard thereto and as such encroachment thereof would be detrimental to the society which the Law Courts cannot permit.

In that view of the matter, there shall be an order of injunction restraining the State Respondents from reclaiming any further wetland. There shall also be an order of injunction prohibiting the respondents from granting any permission to any person whatsoever for the purpose of changing the use of the land from agricultural to residential or commercial in the area. The State-Respondents are further directed to maintain the nature and character of the wetlands in their present form and to stop all encroachment of the wetland area. The State Respondents are further directed to take steps so as to stop private alienation and, if required, by extending the statutory provisions in regard thereto.

(Justice Umesh Bannerjee in People United for Better Living in Calcutta v. State of West Bengal, AIR 1993 Cal 215 at 217, 221, 231, 232)

A monitoring authority is indispensable for all industries be it hazardous, be it non-hazardous. The implementation agencies should be revamped. Pollution control boards should be so equipped infrastructurally that they are capable of appraising all industries. With five officers in a State Pollution Control Board monitoring, of two thousand industries cannot take place. The number of engineers and inspectors should be increased.

Thematic Presentation: Mr. Mirashi

The Problem of Siting: Past, Present and Future

In the past chemicals were being handled, accidents used to happen, but there was not much of a problem normally because the quantity of the chemicals was small. Most of the time, there were leakages but they were confined within the factory premises if not within the affected department.

There was a chlorine leakage in Chembur, this chlorine reached the factory gate, where a gate meeting was going on, consequently some hundred persons were affected. Subsequently there was a chlorine leakage, some where else, which reached the hutment's around the factory and another two hundred and twenty five persons affected. Slowly thus the affected areas started growing. And you all know what happened at Bhopal. The whole city was affected. Can it go any further?

I will here narrate an incident, which took place in Switzerland. There was a warehouse in a chemical factory. The warehouse caught fire. When the fire was being extinguished a lot of water was utilised. This water found its way to the neighbouring river. This river was flowing through another country or rather other countries. The polluted river affected other countries. The incident became an international problem. And you know Chernobyl it became an inter-continental problem. Industries have thus started creating problems not only for themselves but also for the neighborhood and that is why we have to pay more attention to this problem of siting.

STATUTORY REGIME

Siting of Industries

Environment Protection Act 1986	Central Government may restrict areas in which industries operations processes shall not be carried out or carried out subject to safeguards.
Factories Act 1948	State government may appoint site appraisal committee to advise it on initial location or subsequent expansion of a factory involving hazardous process.

Issue of Licences

Explosives Act 1884	License required for manufacture, use, sale, transport, import and export of explosives or any class of explosives.
Poisons Act 1919	License required to possess any specified poison for sale or retail.
Petroleum Act 1934	License required for import, transport or storage of petroleum.
Power Alcohol Act 1948	License required for manufacture of power alcohol.

Other Site Management Authorities

Local planning authorities have overall control of the area. They have developmental plans.

Industrial development authorities acquire a big area and develop it into an industrial estate. That estate is identified for industrial purposes and accordingly infra-structural facilities provided. Plots are earmarked and factories encouraged to occupy them.

Housing development authorities also develop areas and a lot housing plots.

Absence of Coordination the Problem

Now when industrial estates are developed, any kind of industry may come up. Or the estate may be developed only for chemical industries. There would be one chemical industry at the boundary of this industrial estate and just outside there will be residential area developed by residential authorities. And there is absolutely no coordination between them. Thus for example an industrial development corporation of one of the States, they developed one industrial estate. It was finding it very difficult to dispose off the industrial plots because there were no residential buildings available. Consequently they earmarked some are in their own industrial area for residential purposes. Cooperative housing buildings as well as bungalows came up in the area. They were sandwiched between two areas, where there were highly dangerous chemical factories. Even if you don't develop residential areas within industrial estates the city grows and reaches the factory.

The City reaches the Factory: Chemical Factories in Bombay

Many chemical factories had been shifted to Bombay in the chemical zone, earmarked for chemical factories. They were very happy because all the area around them was open. But over a period, the district of Thane started growing and residential areas started coming up just on the outskirts of these factories. These factories approached the courts, saying that further construction should not be allowed. There was a judgement by the High Court that a distance of one kilometre from the factory should be left open. No residential buildings should be constructed outside these factories for a distance of one kilometre. Those persons who owned land in this one kilometre area moved the Supreme Court and got the High Court judgement stayed. The Supreme Court stated that the one kilometre zone order had been stayed because the rights of those people who own this land were affected. It issued directives to the Government of India to constitute an authority under section 33 of the Environment Protection Act to look into the matter.

Possible Solutions

- Analyse the whole situation, calculate what area would be affected if some thing leaks and let all that area be left unoccupied. The difficulty however happens is that after you carry out all these calculations the area that may require to be kept vacant may extend upto five kilometres. Can any country afford this kind of restriction?
- You could follow the worst case scenario or the maximum credible loss scenario.
 - The **worst case scenario** would be that you are storing a hundred tonnes of chlorine, the whole tank may rupture. Since such situations are not credible. Worst case scenarios are not taken into consideration for planning.
 - What is taken into consideration is **maximum credible loss scenario**. Calculating maximum credible loss scenario and identifying the distances that would be affected is a very complicated thing.

Practice in U.K.

In UK is they have prepared a schedule, which gives what they call as separation distances. Supposing you have ten tonnes of chlorine, the separation distance for this quantity would be one kilometre. Is no development allowed in this one kilometre zone? That is not the exact position. Instead what happens is they classify in three different categories of development:

Category A is of course residential category, shopping complexes, commercial complexes and similar structures.

Category B is a factory

Category C contains the vulnerable category of people who will have to be helped in case of emergency. Hospitals, schools and old age homes are included within this category.

What happens is that in this whole separation distance, that is one thousand metres no. C category structure is allowed. No school, no hospital, no old age home. No residential structure is allowed within two third distances of one thousand metres of this chlorine factory. Whereas B category structures that is industries, are allowed. Thus if there is a hazardous industry you can have for the separation distance, other industries which are not hazardous or of minimum hazard. In this manner no area is left unutilised.

Enforcement Procedure

The local planning authority, which enforces health and safety. Whenever they receive any application or any proposal they refer it to the health and safety executives who study these proposals and give their recommendations. Recommendations could be of three types:

One that there is no risk and the proposal be straightway accepted

Two where there could be some risk the proposal may or may not be accepted. If the proposal is going to be rejected for some other reason, that reason can be cited in the rejection.

And third is when the proposal is not at all acceptable.

Local planning authorities are not happy with second category opinion, which states the proposal may or may not be refused. They seek specific advice of either rejection or acceptance. Also in opinions of the third category feedback on why the risk is not acceptable, is desired. The advice of the health and safety executive is not binding on the local planning authorities. If despite expert advice the local planning authorities wish to still accept the proposal, they may do so.

Public Consultation: British Example

The Heathrow Airport is one the busiest in the world and when they developed terminal four about ten years ago, they had to take the local public into confidence. And only after the public approved, they agreed to set up terminal four. There had to be about five six miles distance between the two terminals because that is what the public wanted. More recently they have a terminal five was being contemplated by the authorities. It did not materialise because the entire neighbourhood has turned it down outright.

Intervention

When it comes to hazardous chemicals, it is very difficult to define a zone, it would be wiser to have a much wider zone. Even if we assume under no circumstances, an entire chlorine tank will blast, you still have to budget for such an eventually. Especially after Bhopal and the Chernobyl disaster. The zone which you consider very safe when it comes to hazardous chemicals and nuclear disasters. has to be open-ended. It is safer to double or treble the margin, rather than take an arbitrary value of one or two kilometres.

The Counter View: Dr. Chhatrapati Singh

Conflicting Policies

I am not convinced out of my own experience related to siting and location of industries and the cases that we are fighting, that we really have a situation where we have the good laws which we have to just implement. That is not to my understanding the real situation. To begin with if you look at the policies itself, the Water Policy, the industrial policy and the forest policy of India, they are in gross conflict. One instrument is saying one thing the other another. If you look at the Industrial Development Act, for instance, it defines backward areas in such manner that the ecologically rich areas under the Forest Law or under the Wild Life Act stand included. If you look at the Water Policy, it out a priority of a particular kind which cannot be handled at all if we have to take the Forest policy very seriously. So there is conflict between the policies itself which is to be resolved. At the law level, today I will like to limit myself to those areas where this conflict really matter, in terms of siting and location of industries. The urban issue is a larger issue but if environment is to be taken seriously, then at least the last bit of the environment that we have left which is ecologically very rich, which by the Ministry's own calculation is projected to be about four per cent of total geographical land of India. And if we are not able to save even those one per cent of areas, which are still in a sense virgin, I believe there is no point in talking about environmental issues at all. What we have done in our enterprise is to at least focus on that one per cent which happens to be parks and sanctuary or which happens to be closed areas, or wetland areas where the siting of and locating of particular industry is of crucial significance.

It is not just the EPA notifications, which matter. We also need to look at the tax laws and industrial development laws, which give industries incentives in terms of excise, customs and free electricity or very subsidised electricity or power to go into what, are called backward areas. That is one major problem where this conflict between the manner in which you want to earn money and the manner in which you want to save the environment. The most powerful law concerning the siting and location of industries is the Forest Conservation Act, of 1980 under which permissions have to be given for new projects to be sited. Quite often our most destructive projects of thermal or hydroelectric power are precisely in those areas which are ecologically very rich. Whether it is Enron or Dupont or whether it is aquaculture, whether it is cement factories, they are in ecologically very rich areas. If the Forest Conservation Act comes into play at once,

given the fact that almost 22 per cent of India's land mass is with the Forest Department, the siting and location of industries becomes a direct concern of the Ministry of Environment. This is because it is the ministry, which has to implement the Forest Conservation Act. Decisions made at that level require serious consideration for the country because the Forest Conservation Act and the Wild Life Act truly prohibit any industrial work. Yet despite the Forest Conservation Act, Indian Forest Act, the Wild Life Act there are gross violations all over the country. And why is this violation occurring? First the Environment Impact Assessment notification under the EPA is grossly inadequate. It talks of economic and technical feasibility, it does not look at issues of ecology in the manner in which it should. And that is because over the last half a century the wild life laws and the forest laws have not been taken seriously. The rights of the people in that area almost say sixty to seventy per cent of the total twenty-two per cent of India's land are just not settled as yet. The rights not being settled the boundaries are mostly undemarcated. Now that area that you want to safeguard in terms of location of industries is, are not clearly known, if the boundaries and rights are not settled. It is going to be a very messy affair legally. Whether it is the Anu sanctuary on the eastern side or Vetakanika sanctuary on the Western or the Gir national park the boundaries have just not been settled. Infrastructure is not available to settle the boundaries. The settlement of rights is important, because if the rights are settled and the issues clear then it is possible to plan what can be done.

Need for Settlement of Rights

There is a case that we are fighting on the Gujarat side, where an industry which is coming up in the Rann of Kutch, this is a smaller Rann. The Forest Department claims that it is forest area. The revenue department claims it is revenue area. The Collector is willing to give the license and nobody is sure as yet because the record of rights has not clarified the position for land rights. If these rights were known very clearly, the location and siting of industries will be a different matter. The whole of Western Ghats where now the industries are going to come up, issues of the same sort have arisen. Is this forestland or not? You go to the sanctuary end that creates a major problem for location of industries. I said, EIA itself must ask questions like are the boundaries settled? Are the rights of the people settled? If the rights are settled and compensation has to be given in different kind and must get into whole range of other environmental issues.

Norms for CSI Notification

If you look at the CSI notification again, you notice the notification divides the country's coast for location of industries. The coast is a major area, which can be easily safeguarded from location of industries in a rational way. One is not against development, or industrialisation. The goal is a protect at least one per cent of India's landmass. That is the bottom line. The CSI notification is going to have an impact on that one per cent landmass. What is the rational basis for the CSI notification, should it be this hundred metres – five hundred metres business, or should at the hydrology and ecology of the area be looked at. We believe we must clearly look at what is the hydrological and ecological situation in different areas. Category one area, in the CSI

notification happens to be parks and sanctuaries. And some thing else is in category three where sanction for industrialisation can be given. This category three area could be ecologically rich and hydrological poor, say in terms of ground water. Ground water suction will create salinisation of water, as we seen in Gujarat. The Government of Gujarat claims that the disputed area is a category three or two area and we claim it is a category one area. We know that CSI one and two, or three or four should have been based on what is the hydrology of the area. There is massive salinisation in the Saurashtra belt in the Gujarat side. Such notifications must be based on the ecological and hydrological situation.

Implementation

India takes massive amount of loan from various development agencies including the World Bank and the IDB. Yet if you look at the finance situation in terms of the expenditure that is being made to safeguard the areas where industries are located it is very marginal. It took us many years to convince the World Bank of the fact that saving these areas is a bankable resource. They claimed it was not bankable because you can't get the money back.

To give you an illustration, on the Western side we have the Betarkanika sanctuary and the green Multinational Park. Right there at the edge of it because the boundaries were not demarcated very clearly, the World Bank financed a whole range of aqua culture projects. This has also happened in Pulicut in Andhra Pradesh, it is also happening on the Kerala side, the World Bank money is being used.

I will finish with this submission with regard to the implementation part. If you look at the State Pollution Control Boards, the Central Pollution Control Board, and you look at the actual finance involved in administering that law, the finance bill is extremely negligible. The same is the case for eco- development projects in all parts of India. I think if we are to be serious at least with regard to the one per cent geographical area of the total landmass we have to make appropriate financial outlays. Without such outlays we can't save this landmass we can save nothing. There is no point in talking about the environment and environmental beauty of the country.

Questions

- Do you want development or you want to shut up every thing and go back to the Stone Age?
- What is development?
- Development is essentially a series of compromises with environment. No society in the world, international airlines has really protected its environment at the cost of progress.
- Can you progress without accepting some of the negative components of progress?

- What is the tolerance limits? Whether you can legislate some limits in terms of shifting of systems or can you sort of make it open ended so that we learn to live with every-thing under the sun in a spirit of biological adaptability.

Norms on Risk Exposure:

Mr. Venkataraman: Should people have a right to decide

- Do we really have the right to judge what kind of risk exposure, a person is supposed to take. For example, for the location of an industry, distance limits of one or two kilometres are being laid down without appreciating that risk exposures, and the perceptions of the risk are different from place to place. Thus for example in a place like Holland somebody living at a distance of one or two kilometres from the factory may not be deriving very much benefit from it because trade does not constitute any major proportion of the income, from the industry. On the other hand take a place like Baurani or some place in Bihar or some other place, where seventy or eighty per cent of the population derives substantial benefits as a result of the industry being in existence. Whether a tea shop or a pan shop owner or a small trader, may be not a school but some other institutes whether they are really willing to take that risk or not. Should they not have a right to decide. Or can by rules and regulations, disallow the taking of such risk.
- Industrial workers whose working conditions are governed by the labour laws, take a voluntary risk. They are working in that factory, deriving income from it so naturally they are expected to sustain some level of risk.
- Can the position of somebody who lives near an industrial township be compared with a worker. Especially who if without the industry he will probably not live at all. May be he is ready to take on a higher portion of risk. The question then is do we really have the right to judge and decide? Are we not similar to those Water Commission reports, which presume that average households will require this much water. Should they not take the views of the householders also into consideration? For example, how we go about doing it. I am not suggesting that before industry is sanctioned, we go on asking every thing, how much risk are they allowed to take, but there has to be some where around that angle also. Similarly we also have to take the views of the public into consideration and incorporate a procedure for eliciting them into the legislative framework. The basic point is when these or their equivalent standards of risk exposure are imported then the way in which the people perceive risk should also be taken into consideration. Persons may be willing to assume to voluntarily more risk where their income is directly derived from the industrial activity. In such cases the industry may be allowed even if the risk to the exposed population is to some extent more than what would be allowable in a European country.
- As far as risk exposure acceptability is concerned – the way is to peg it on the continuum of risk assessment and risk management. Risk assessment is a very scientific and objective exercise, presuming that we have the correct figures right and then bring out the schedule that this is the probability of your surviving a second

train accident, or crash or cigarettes and so on. In risk management, the command and control system gives its verdict, be it the judiciary, in a command and control modus or the executive and so on.

- In a country where one third of the population is below poverty line and you know they will go in for any job. A starving man would sell his blood to buy his next bread. It is very difficult to prevent the expansion of habitat to isolated locations of Industries.

Pattern of Industrial Development

In India almost sixty per cent of the industrial development takes place in and around the metropolitans.

Reasons for such growth

I was speaking to an industrialist who lives in my areas! I can't mention his name, because his industry is an illegal industry. I asked him why do you locate your industry in this place. He said, boss, well, ghat se pass rahta hai, you know, I can come home for lunch and things like that. So you see:

- every body wants to have an industry near where he lives whether he has lived there for twenty years or ten years.
- If you go and tell some body go and set up a factory in some far away place where, it takes him three hours to go, and three hours to come back he may not be interested.
- A large-scale industry depends upon infrastructure development, it depends on rail links, and rail fares and like.
- All industries want to be nearer and nearer to the customer.
- Financial incentives such as sales tax breaks, tax holidays for geographical diversification of industries have not been really successful due to the cost of transportation of raw materials.
- Perishable goods cannot be transported over large distances. And then freight rates are also quite high. Due to the lack of basic facilities such as roads and mass transport everything is attracted to places wherever little energy and infrastructure exists. This is a key issue in any programme of environment management.

Ways to shift Hazardous Industries from Large Centres of Population

- Industries cannot be viewed in isolation.
- Whilst giving sanction the neighbouring industries have to be considered.
- The concept of notified industrial zone needs to be reconsidered.
- Notified Industrial zone attracts clusters
- An incentive to locate industry in one particular area requires reconsideration.
- Infrastructure support, which makes for industries mushrooming in and around one single place, should not be provided.
- Need to look at ways and means, which allow for industrialisation to shift to other areas.

Co-chairperson: Prof. Subramaniam

The Problem of Larger Numbers

We cannot copy examples of say Holland or UK or other developed countries, for one reason because we are dealing with very large numbers.

There is no way in which the examples of other countries that have a different set of conditions and criteria can be followed.

We have a certain percentage of forested area, parks etc. We all know that this percentage is diminishing. What is the solution when you are living with close to a billion people in the country. The demands of the people are bound to increase. Already the requirements of even the lower ten per cent of the populations are not met. How can all the rules and regulations that are excellent on the book really are fulfilled keeping the ground realities in view.

Location with Larger Concern for bio-Diversity

The national parks and sanctuaries are situated in the one percent of the geographical land mass. There is another three per cent which has not been a notified area, but which is extremely important because wild life and other creatures live there. What we seem to be discussing here is a totally hundred per cent human centered view of location. The shift from that to a larger concern for bio-diversity is what we are interested in. And this perception is really different. Risk factors have been discussed only keeping human beings in view. Whereas the wild life and the trees also need to mind. With that perception the issue where industries should be located industry be kept in needs to be decided. Yes, there are possibilities and there are some directions, some for example under the Wild Life Act itself the Chief Wild Life Warden has to make a decision. Or the Collector has to make the decision. Now the Collector and the Wild Life Warden are not able to make the decision partly because he doesn't have the finances available for these purposes.

Compensation for Rehabilitation

We have eco development programmes, we are willing to pay for rehabilitation when private land, say in Munirka, Janakpuri is acquired. The villages adjoining these colonies have vanished and compensations for their acquisitions are available. When you say rehabilitate the people inside these parks and sancturies money is just not available. We are using double standards. The money that we have spent in urbanisation, massive relocation of people has happened in Delhi. Industries, have expanded. People have been pushed out and compensation has been given by the DDA. The government should compensate tribal and rural people on the same standards. The question is what should be the formula of compensation? When this question arose in the Planning Commission

the other day, the formula evolved was simple – it was the highest rate of land in the state. Thus for example if you wish to safeguard an area in UP, find out the highest rate of land in UP, say Lucknow or Allahabad and then pay compensation at the same rate, to the inhabitants of the area, notified for acquisition for the national park and sanctuary. The rehabilitation scheme of Munirka Village was mentioned as an illustration. I happen to live in Munirka. I assure you Munirka village is one of the richest villages in India. It is an urban village the inhabitants have been compensated. Yet the money they have been paid by the government has been simply used up to build the village further. Infact most of our students are living in Munirka and they are paying two thousand rupees rent for a half room area. I am sorry I don't agree with you that the villagers of Munirka have not been compensated. However the compensated money is not being used for shifting but for prolonging the stay. The story at Janakpuri is no different. In fact this is the story at Janakpuri is no different. In fact this is the story through out the country, it is not only Munirka.

We have one standard for rural and tribal people and another for urban people.

Emissions as Influencing Location

K. Chatterjee: The discussion till yet has only focussed on local pollution. There is another dimension the emissions are not really bound by locality. The meteorological conditions may cause the emissions to be taken far away. This is an important factor while sitting an industry. What is the nature of emission the industry throws out. As regards land use there is a technology available called the GIS system which I think we should use. The geographical information system is an important aid for the planning of factories. It would provide a scientific basis for planning the siting of industries.

Location Tendency of Urban Superiority

Anil Nauriya: In an earlier interjection mention was made of JNU and the airport and the planes disturbing JNU and perhaps the airport should be shifted for this reason. Now it has occurred to me that in this location policy there is a tendency of urban superiority. It is there for instance in the slaughter house cases. Let the slaughterhouse go out of here, let it go any where else, it doesn't matter where. And when it goes somewhere else, if some one protest look why are you putting it next to me and then it may be sent some where else. Ultimately while location is certainly an important factor in chemical industries it is not a substitute for ordinary measures of sanitation, safety, etc. And this I think should be borne in mind. Because no substitute exists for these measures not even location.

Location: Only if Safe Technology Available

Co-chairperson: We have been talking about siting and risks of locating industry in the vicinity of residential and other localities. If you were to examine the technology or the inherent safety of the technology of industries which is being brought into country. In Bhopal for example many other technology options were available but were not used. If we introduce some mechanism by which a proposed industry can examine several options of technology before location is allowed, it is possible that some kind of minimisation of the risk impact on residential areas could be obtained.

~~Why should we set up industries for which we do not have a Pollution Control Technology at all. Such activity should be banned completely~~

Monitoring of Pollution

The second and the biggest problem is monitoring of the pollution. Laws are completely sufficient, if they are implemented in letter and spirit. I have installed an industry, I submit a disaster management plan without in any way thinking that if the disaster takes place whether the disaster management plan included by me can work. With just a plan nothing is going to happen. My submission is that whether it is a disaster management plans or pollution control equipment install it if it can be scientifically monitored, otherwise, it is better to not to have the treatment plant than to have it and not to operate it. The basic problem is that neither the pollution control board nor any implementing agency can monitor a polluter round the clock whether he is observing the regulations or any pollution control official cannot there all the time. For example we are there monitor the effluent treatment system. It is switched on at ten it is switched off. The basic thrust has to be how to monitor the existing system of the industry.

~~It is a fallacy to address the whole issue of pollution around do or don't they have a treatment effluent system~~

Their basic effort is to save the electricity charges cause otherwise it is unproductive for them. For example, for the cement industry of cost of running an effluent plant is Rs. One crore. The electricity charges are rupees five to ten thousand per day. If you say that the effluent plant is being operated as to spent those ten thousand (rupees). It is not so. The basic problem thus to compel the industries to operate the effluent plants even after they are installed.

~~Why can't we suggest an interlocking between the pollution control system and the production. You switch off the pollution control system, and your production stops.~~

Relevance of Climatic Conditions

Now, for the location and siting of big industries we should take, the assistance of the geographers or cartographers who are in a better position to assess the climatic condition. I understand that Zoning atlases have already been prepared, and I think by and about 1995-96 of that year, nineteen or twenty districts have been earmarked through out the country. There is a plan for the 96-97 everything is there for the purpose of siting. The question whether certain climatic conditions is also suitable for a particular industry needs to be considered. Illustratively Mr. X an industrialist wants a license. Ministry of Environment says sorry you can go Rajasthan. Mr. X knows that if he goes to Rajasthan he will be able to meet the situation. Probably the climatic conditions and the nature of the industry may not be compatible with each other. What happens then? Should not this dimension be evaluated?

Geographical Information System

Vijay Sharma: We do have a geographical information system but it is still in a state of development. We are trying to build up their computer facilities and databases. As far as the climate is concerned we have not engaged the Research and Development to the extent that we could have. And I say that also in the context of the latest drift with regard to the climate change convention. Where the emphasis now is on the regional variations and the regional side of climate change. We are very strong on building models on existing data but the collection of the differentials and the regional dimension there we have to build up our capacity. The second point was with respect to my colleague from Rajasthan Board, referring to ground water pollution. The setting up of a particular factory somehow predated the hazardous waste rules by one year. A lot of these are hazardous waste rules of '89, and a very substantial amount of the ground water pollution took place as a result of what was emitted in that particular year '88-89. Of course there was a lot of sludge and hazardous waste generated in the solid form. But the encouraging fact now is, that in recent judgements by the Apex Court it is being fairly clearly laid out that it is not only the question of damage to the human health, property environment. Compensation or rather payment of damages has also to be made for the restoration of what has been spoiled. Ad that I think should stop this kind of default.

A reference was made to Gujarat and Kutch. Kutch is a vast arid, undeveloped area. There are mineral deposits lying for centuries. And mangrove forests, which are not identified as, forest. There is a chance for cement industries to come up there. When industry comes transport will also be needed. In a Coastal area, ports are a necessity. Setting up jetties is essential. It should be so done as to cause least harm to the ecology and in balance with development. I think environmentalist also should look into this aspect. The people will find jobs in that area. If you look to the present life of the people, a balance has to be struck between development and ecology.

Inclusion of Environmental Toxicologists in Site Appraisal Committee

Section 21 of the Environment Protection Act provides for that a site appraisal committee to look into the matter of siting of industries. I would like to suggest that some persons who have conducted studies in the area of environmental toxicology and occupational health problems should also be included in the list.

We have to look into the matter regarding the siting of industry from the point of view of what are the technologies available with us. And we have to frame the laws that what are the technologies available in the country entailing least cost so that the industry people or the persons can have those technologies.

The next point is that when we started to commence manufacturing we have to see what are the most practicable environmental options with us. Whether the release should be in the air or water or land.

Indrani Chandrasekharan used the word Umbrella legislation, I would have preferred her using Shamiana legislation. That is I have lifted the word umbrella for my use. Perhaps it may be impracticable, to bring all the twelve current legislation's into one comprehensive legislation but there is perhaps room to rationalise. As for example we have one Act on Water Pollution, one act on air pollution and one, apex Act on Environment Pollution.

In fact a proper amalgamation of the provisions of these three major enactment's and may be a few others may result in lot of comprehension and rationalisation.

We have to look for some solution, which prevents the use of low cost and high hazard technology to safe technology. Now in any industry any technology the main basis on which use of technology is determined cost effectiveness. Now while calculating that cost effectiveness, why shouldn't the cost to the community and environment also be assessed.

Need for a Uniform Licensing Policy

There is a provision for licensing of the Factory, under the Explosives Act, there is a provision for licensing a particular tank form of site of hazardous substances and inflammable substances. The Ministry of Environment also issues no objection certificate. The policy under different laws, encompassing licensing should be uniform.

In the 80s when the factories were established, the ammonia storage's were of the tune of fifteen hundred to two thousand tonnes. Now with the new technology ammonia storage's are coming up with five thousand tonnes. One storage of five thousand means you have just encompassed the total risk of three storage's at one time. Now if the Ministry of Environment issues a No Objection Certificate it will be very difficult to bring it within the purview of Acts like the Explosives Act, and the Factories Act.