

Complexities of Environment Management in India: Did we do Enough!!

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The country has gone through a immense change from the time when there was only Water Pollution Control and Prevention Act 1974 and Air Pollution Control and Prevention Act in 1981. After Bhopal tragedy, India saw a big transformation with regards to new and progressive rules, acts, enactments etc towards pollution prevention and control. Later, the array of cases in the courts, especially in High Court and Supreme Court, led to formation of National Green Tribunal (NGT). The idea of having NGT was very transformative, in the sense that earlier Public Interest Litigations (PILs) can now go to targeted courts where judicial and subject experts can sit together and deliberate to give judgment. While India progresses in multiple areas globally, it is noticed that our environment protection has become more and more challenging. On one hand, citizens and concerned activists feel that not much is being done while the on the other hand, government feels that we are doing what is best possible. The duality of these positions becomes more complex when we see the mounting court cases in NGT and many other courts. The average citizen still believes that our government has been unable to address three basic issues of environment: Air Pollution, Water Pollution (wastewater disposal) and Solid Waste.

The quality of life has been seen to be a big worry as deleterious effects have now touched almost all across the country. The status seems daunting as we notice that we treat only about 30 percent of sewage (only major urban regions), less than 10 percent of solid waste is managed scientifically and we have more than 130 cities which don't meet the air quality norms. The government expenditure on each of the above has been increasing significantly, however, impacts are not being felt. It is important to note that the same government has been able to deal with industrial pollution to greater extent compared to early 90s. Therefore, it becomes all the more important to discuss the conundrum of pollution prevention and control.

Challenges of the kind our country is facing, needs very specific scientific and technological inputs. Not to ignore that while we look at technological interventions, many of these issues need more thinking from social and financial angle as well. Integrated solutions, therefore, will emerge only when we have all the aspects of the problems and solutions looked at from all the angles and very specific to our own socio-cultural system; which if not considered, even a good programme can

get derailed. Some examples of environmental issues could be addressed differently are discussed below.

The urban landscape of current times across India faces huge water crisis. A small look in the history of most cities shows that these places had many water bodies, which were combined with very prudent water harvesting structures (natural as well as man-made) for surface as well as underground aquifers. Delhi, Bangalore, Kolkata, Udaipur etc are examples of cities which had water bodies spread across naturally and were well preserved earlier. However, as water supply became responsibility of government through secured sources, most of these were subjected to disuse and misuse. Progressively, many of these were filled to make more landmass available for housings and some time to stop malaria due to mosquitoes breeding in these water bodies. If we look closely, most of these changes occurred not only due to government apathy but also due to social disconnect. The advent of piped water supply brought cheers to all in urban regions, however, it also allowed society to forget about their own wells and ponds/lakes. It was also tacitly assumed that water available underground will last forever.

Water management discourse of India, therefore, got deviant interpretations, regionalized and confused directions. If we examine these interpretations, most of them were probably right but very specific to the site, region, society and context. The specific solutions were pushed for solving water issues nationally. It's important to note that water issues in India doesn't have one single solution or set of solutions which can be applied across the country.

The big question, therefore, is what will work and how will it work? The conundrum of "Water" will need more than technical solutions. Following steps will bring us close to what's possible to do:

- assess where are our water sources (most of the surface ones first as they are easier)
- mapping of those which are available and listing of all those which we had but lost (use of technology and society)
- create social networks which can connect with government which will bring the status of these water bodies
- define ownerships (private or government or unknown)
- stake ownership and document
- society to connect through adoption of water bodies

- assess technology solutions for preservation and conservation
- involvement of local villages, city dwellers, schools, colleges for their ownership
- understand the legal aspects of water bodies
- prepare plan or update plan and share it in public
- do water census and report as wealth preserved or lost

What these activities do is bring the connection with our water and water bodies all over again. Societal links with authorities need massive effort because the divide has become too deep and fraught with failure. These efforts will need more professionals, social experts, ground groups, academicians and researchers. The era of intellectual advice from a distance has come to an end. Now is the time when all experts need to work with all the citizens of all types as equals and be counted. India has shown in the past leadership in many areas, and it's possible to do in this domain too.