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**Point for discussion this month**

**Climate change – local, regional & global**

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Dear Readers,

Such free flowing, serene river, with fully developed riverine ecosystem on both banks and crystal clear water is very rare sight nowadays near urban sprawls. As the river enters in urban population it looks like an old lady with lots of death threatening diseases and begging for life. Pune Municipal Corporation must have the goal of restoring riverine ecosystem as shown in the photograph. Then, urbanites will definitely reckon their responsibility to maintain the serenity of the water bodies. So, the goals shall be redefined based on ecological principles rather than infrastructural planning.

In this issue, the pressure of infrastructural development on water bodies has been discussed stating the need of redefinition of development, urban environment, health and social integrity. Empowering is the M-power only; that is what you experience in most of the developmental processes. The poor communities are left to wraths of nature resulting due to inept planning and development. They become the victims of development.

The pollution is engulfing earth and now food crises come to its help. Are really eating habits of Indians so worst that they are the cause of recession in America and world over? This is political understanding of scenario. Now you can imagine the result very well!

Thank you,  
Chief Editor

Article

## **Drying Rivers: Yield Vast Plans For Construction**

Dam the river and then say that there is no water in the stream downstream. No flooding, no recharge of ground water and no reverse flows into river which keeps it perennial. So, the running water body dries up over the period of time. The drying of rivers continues to be the aftermath of ever-land-devouring urbanization. Urbanization increases the impervious layers in areas. Buildings, roads, concrete jungles impede the infiltration and percolation of precipitation and recharging of groundwater which keeps streams flowing round the year.

Relentless growth is harping on huge economic gains from infrastructure development, damaging watershed and generating huge piles of waste. Constro-floods are so pressurizing, engulfing, they don't give any breathing space to factors of human environment including social, administration & legal requirements. Constro-floods has become course-defining phenomenon which overrules everything neglecting the laws of nature & ecology. Even the legislation takes the course the way infrastructure wants at the cost of nature, neglecting economic losses due to ecological damage.

Delhi, capital of India is also in the race of encroaching riverine ecosystem. It is gearing up for the 2010 Commonwealth Games having hoping 26400 crores investment in infrastructure development. With an ambitious aim to list Delhi as world class ultramodern metropolis the great plans are turning every stone in the city on infrastructure development.

Even the riverbed of Yamuna is not spared, where a luxury block of 1,168 apartments are being built to accommodate 8000 strong athletes & delegates. After the games are over, the most modern flats fitted with Italian marble & other sophisticated fixtures will be sold. So, to avoid damage to the infrastructure being built in Yamuna's floodplain, it will need to have more rigorous flood control measures which will eventually end up in drying of Yamuna river in very short period of time.

As per the studies of experts, it is envisaged that any permanent structure may cause the

flooding in entire east Delhi region which houses 2.8 - 3 million people. These are possibilities of spreading of sewage mixed with floods due to reversal of flows of 18 drains which empty sewage into the river.

It is claimed that the Game village will have STPs, solar panels & rain water harvesting systems. Constro-built pressure was so heavy that Ministry of Environment & Forests (MoEF) issued an environmental clearance allow permanent structures on the site negating its own earlier permission to built only temporary structures.

The recommendation of MoEF in Nov. 2006 to undertake groundwater study in the area never commenced. Even the prime environmental research organization of India- National Environmental Engineering Research Institute (NEERI) revised its opinion of not to built permanent structures on the riverbed just to make way for Commonwealth Game's infrastructure.

Delhi Development Authority has also made up its mind to describe the site residential & land for commercial projects in 2021 Master Plan countering its own earlier proposal to maintain the Games Village as agriculture & water body. There seems to be ignorance of the guidelines issued by Supreme Court to time regarding riverine ecosystems & restoration of river. Supreme Court has issued various guidelines to corporations regarding the riverine systems. But whether it is Delhi or Pune, Hyderabad or Bangalore or Ahmedabad, the instructions on riverine systems are not followed even 10% as per one study done by the experts.

In Hyderabad, Mushi river carries only sewage and its floodplains are also being encroached upon by various activities. In Ahmedabad, the plans of river beautification with a lot of infrastructure are in pipeline. Bangalore with unprecedented infrastructural growth has reduced the streams and lakes resulting in hovering of awful stench of water bodies on surrounding areas. So, there is a need to define and implement policy for the maintaining the sanctity of rivers even with infrastructural by every concerned government departments, agencies, and corporations. This will be useful for healthy environment not only for selected elegant people but for poor junta also.

- Sandeep Joshi

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News views

### For The Sake of Environment!

Indo-Pak N-war can change face of Earth. A study made by US scientist says that an Indo-Pak nuclear conflict, even a limited one, will not only cause human devastation in the two countries, but create a near-global ozone hole, triggering health problems and environmental havoc world wide for at least a decade.

This study took help of computer modules and simulations to claim their findings and it is published in the Proceedings of the National Academy of Sciences. Even a small exchange involving 50 Hiroshima sized nuclear devices on each side will cause massive damage to Ozone layer. At mid-latitude the drop in the Ozone layer will be up to 40%, which will persist for many years.

### Health Aspect of Climate Change

WHO report warns that India may play host of health problems as a result of global warming.

According to the report, vector and water-borne diseases can especially see an increase in the northern region of the country as a result of climate change. The six health concerns likely to arise due to climate change in the region are – respiratory diseases, vector-born diseases, water-born diseases, malnutrition, injuries and psychological stress. WHO regional director Samlee Pilanbangchang said, Air quality will suffer greatly and Heat waves will be more intense and of longer durations, mainly affecting the most vulnerable populations in children and elderly through heat strokes and cardiovascular complications.

Warning governments against taking the threat of climate change lightly, chairperson of Inter-Governmental Panel for Climate Chang R.K. Pachauri said in a message, "though as of now there is no evidence to link the changing disease patterns to climate change, if we wait for evidence before taking any action, it might be too late."

### Right picture of pollution levels by gen next!

Madhav Gadgil, with the help of NCERT

has decided to set up a network of educational institutions to find out the real extent of water pollution. Under this project a network of schools and colleges will be formed to study the water bodies and provide actual picture of water pollution. Leading research institutions will also play an important role in providing resources and knowledge to the network. A school or college will be given the task of visiting water body near by, taking samples and analysing them. Students will be trained to analyse, study and give the results regarding impurities, water quality as well as the cause of the pollution.

### IT industries – They are polluting equally!

The Maharashtra IT and ITES policy, 2003, states that these industries do not cause pollution and shall be exempt from the requirement of getting no-objection certificate from The Maharashtra Pollution Control Board. So that way these industries were given a clean chit and they were non-polluting industries. But there is drastic change in the policy from 2008. The Maharashtra Pollution Control Board (MPCB), in a recent directive, said that the provision of Water (prevention and control of pollution) Act, Air (prevention and control of pollution) Act, and Environment Protection Act are applicable to IT and ITES industries.

This change took place due to a complaint which MPCB received last year against an IT major at Hinjewadi IT park.

The complaint was that the company was releasing untreated domestic effluent from its canteen causing pollution. Acting on the complaint MPCB directed the company to construct its own effluent treatment plant.

The MPCB observed that these industries do generate pollution during establishment and operation phases. The generation of domestic waste water and solid waste through canteen is sizeable and it requires proper treatment before disposal. Also the IT industries install high capacity generators for uninterrupted power, which gives rise to air and noise pollution. They also generate e-waste which requires proper treatment and disposal. So, henceforth IT industries also will have to comply with MPCB norms and regulations.



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### **SERI's Solutions for Sewage from Knowledge Industry, IT and residential complexes**

SERI's experts always try to evolve some simple but effective mechanisms to control the pollution at source only. With the experience of more than a decade of treating pollution from the point sources including domestic and industrial wastewaters. The results have been confirmed and validated by a number of users by having pilot scale and / or full scale plants.

As far as sewage collection, conveyance and treatment is concerned, it requires a lot of space, energy and man-power to establish full proof system to convert sewage into clean water for reuse - at least for gardens. Pollution of city water bodies is the result of failure of such systems on a large scale.

SERI has designed a scheme to treat sewage at source where the quantity is manageable. It's a waste to wealth (W2W) concept. The benefits of this scheme are minimal use of electricity and man-power. This scheme will involve two methods - one is direct use of Soil Scape Filter with initial removal of nonbiodegradables. Then wastewater can be sprinkled directly using gravity benefits or pumping. The treated water will be collected at the bottom of the filter and shall be used for garden.

The other method is to use hybrid technology - combination of MPU (Methane Production Unit) and Soil Scape Filter. Solids will be retained and degraded to generate methane gas. Then, the overflow from the unit will be further stabilized, deodourized and cleaned using Soil Scape Filter. Purification of air and beautification of premises are the value added additional benefits of the system.

The projects of JNNURM and UIDSSMT schemes for metro cities and towns are taking a lot time and toll of ecosystems. These systems will help to make people's own initiative of clean and green movements successful in short period of time. SERI's schemes will definitely help the society to maintain healthy environment for all. These will be useful for the corporate world who are looking for such social and fruitful projects.

- Priya Kapole

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### Announcement

#### Greenself, Greenmovement & Greentech capacity building programme

SERI has commenced greenself, greenmovement and greentech programmes for value addition training for undergraduates, graduates, professionals and industrial employees. These courses will equip the candidate with in-depth understanding of environment and eco-responsibilities in his or her profession. For more details please visit website: [www.seriecotech.com](http://www.seriecotech.com) or write to [envedplm@yahoo.com](mailto:envedplm@yahoo.com).

#### Outreach Programme: Enviro-legal Services

Many industries, organisations, NGOs look for guidance and advice technico-legal matters of environmental monitoring and pollution control. Hence, SERI is in process to develop such outreach cell to help those who seek such services. This cell will guide organisations in activities to be undertaken as environment related CSR projects for the benefits of society. For more details please contact: Priya Kapole on [seriworld@seriecotech.com](mailto:seriworld@seriecotech.com).

### **External Words**

From Book "The Environment and Business " by Alasdair Blair And David Hitchcock (2001; Publisher Routledge, London)

**Environmental concern has created clear winners and losers in industry. While some corporate environmental policies are compatible with commercial selfinterest, others have been driven by the fear of environmental liability and failure, with levels of environmental investments outweighing any immediate gain.**

(Howes et al., 1997)

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