



**Chief Editor**

Sayali Joshi, CEO

**Editorial Board**

Dr. Pramod Salaskar  
Priyamvada Joshi

**Executive Editor, Design**

Susmit

**Advisors**

Dr. Jayant Mandlik  
Dr. Suresh Karkhanis  
Dr. M. S. Kodarkar

**Contact:** Executive Editor, Shrishti Eco-Research Institute, B-106, Devgiri, Opp. P. L. Deshpande Garden, Near Ganesh Mala, Pune – 411 030. India. Phone: 91-20-24253773 /Telefax: 91 -20-66206539

Website: [www.seriecotech.com](http://www.seriecotech.com) Email: [seri\\_news@yahoo.co.in](mailto:seri_news@yahoo.co.in)

**Point for discussion this month** **Water business in India – killing rivers?**

(For private circulation only)

Shrishti Eco-Research Institute, Pune

**Eternal Words**

“This world is inhabited by all kinds of people. They are isolated by land and water, religion, customs, habits. The minds and hearts of those people are much alike. Under sudden or stressed emotions, they blossom forth or explode in roots, fights, dance song, prayer. At such times they become one mind and heart. And the world vibrates with the intensity of their feelings, emotions, angers, laughters.”

Mr. M.K. Gandhi



Dear Readers,

We always want clean water bodies for our development as shown in the cover photo. This month is of national budget declaration. We expect that this year the finance minister of Government of India should pay attention to restoration of urban environmental quality as many of the cities are spewing out enormous liquid and solid wastes which compelled Environment Minister to spell out that the cities are dirty. Let us do something with institutions and public participation with proper knowledge and information to create a policy of healthy places by employing proper technologies with timely support of finances. These are actually the six pillars of Integrated Lake Basin Management (ILBM) initiated by International Lake Environment Committee (ILEC) can be extended to serve the purpose of making cities healthy and liveable places.

These six pillars can be supported and amalgamated to produce desired results by the seventh pillar of "spirituality". Spirituality gives the essence of meaningful peaceful living on this earth with sharing symbiotically the necessities of life. The present global market trends and ruthless economies are pressurizing the rivers and lakes with infrastructural interventions. The Indian government agencies are also exploring the possibilities of using Ganga - Yamuna Rivers' serenity for creating hydro-electricity. Down the lane these rivers are severely polluted due to ineffective sewerage and sewage treatment plants in the modernised cities of north India including national capital.

The seventh pillar in India is now seriously working to protect the sanctity, serenity, purity of most sacred rivers of India - Ganga and Yamuna - by initiating, stimulating and guiding public participation to enhance the proper policy and decision making, formulating the action plans for sustainable development in the river basins. It's a welcome change of approach in the stance of citizens of India which will definitely create and establish the well sought precedence. Even in Pune, the programme on river restoration and gandhian philosophy was organised by National Women Organisation to insist the participatory approach in environmental decision making.

Thank you,  
Chief Editor

Shrishti Eco-Research Institute, Pune

## **Newsviews**

### **Comprehensive Environment Assessment of Industrial Clusters**

Environment Minister Mr. Jairam Ramesh has released the report on comprehensive Environment Assessment for Industrial Clusters. It is prepared by IIT-Delhi in association with Central Pollution Control Board.

There is very alarming situation in this study. In all 88 highly polluted industrial clusters in the country has given ranks on the basis of pollution levels. There is very bad news for the Delhi government which is busy in common wealth game's preparation, as the Najafgarh drain basin in East Delhi has been being ranked eleventh. Also the Najafgarh drain basin which is also the biggest polluter to Yamuna, tops the list of thirty-three "critically" polluted industrial hubs, scoring between 70-80 in the Comprehensive Environmental Pollution Index (CEPI). The Index captures the various health dimensions of environment including air, water and land. And the drain has scored 79.54 points, which is attributed to huge effluents and sewage in its drainage basin. While Ankleshwar and Vapi (in Gujarat) has secured first two places in the Index, Ghaziabad ranks third in the list. Noida ranked 12. Many of the industrial clusters have exhausted their capacities. Zoning atlas for each region has become necessary to tackle with the problem of pollution overloading.

### **Water- a 54 k crores industry of future India**

Water business has many dimensions from project development up to recycling. Globally it is a \$ 400 billion industry. In India about 54k crore investment is predicted in near future. With large-scale funding by the government under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and the Urban Infrastructure Development for Small Scale and Medium Towns (UIDSSMT), and investment by Indian and multinational corporate houses, the spending in the water sector is set to double in five years. Many corporate companies are already in this business supplying either municipal water or in the purification and recycling of the polluted water. All the 650 municipalities and municipal corporations have massive investment plans for improving their water supply and sewerage systems



Though lots of funds and technologies are available, this is very fragmented and disorganize business which needs to be critically supervised for the benefit of the end user i.e. every respected citizen of this country.

There have to be very simple technologies so that a common man can contribute towards the goal of pure water for all. The energy and material intensive techniques with centralized collection of wastewater and treatment – operations will restrict the common man's participation. The policy and action have to be laid down to involve willingly participation of citizens in the control of pollution.

### Ganga – our pride?

Water of Ganga has tremendous importance in every Indian's life. She is the only river on this earth which is having unique self purifying capacity. The traditional fact that the Ganga Water can be stored lifelong without decay has got scientific support. Her divine power is respected by foreigners also. Apart from spirituality, a unique Indian culture is flourished on the banks of this motherly river.

But now this river, finding place in the hearts and minds of crores of Indians, is under severe stress due to engineered interventions to produce electricity and use of river as a sewer for urban discharges has challenged the self purification capacity of Ganga.

Government of India is proposing a series of dams on this holy river from Gangotri (her origin) to Haridwar. If this project is implemented then there will be total 12 dams in a series in just 135 km of stretch from the origin of the Ganga.

The existing projects e.g. Maneri Bhali I dam has rendered kilometers of dried patches in Ganga bed. Also this above said project is functioning even less than 50% of its capacity.

Tunneling and damming of Ganga in the Himalayan Mountains has restricted her ecological flow. The ecosystem developed on the banks of this river is imbalanced due to mechanical and infrastructural activities by humans.

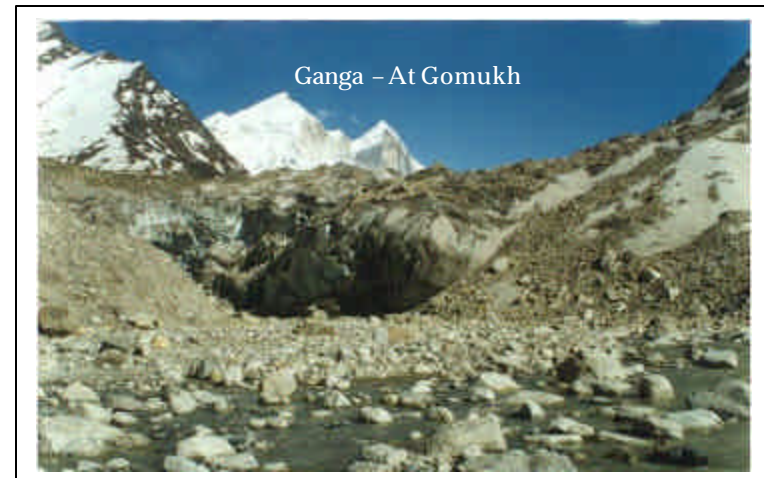
Ganga symbolizes each river of India. Every river has a unique place in the development of great Indian culture of which we feel proud. Instead of being stake holders or guardians of our precious rivers we have transformed them into filthy drains carrying industrial and human waste. This sugar

coated tablet of development has now started showing its side effects, but all urban centers are addicted to this tablet.

To sustain their developmental rate these urban centers are rapidly drawing fresh water from river that's why while leaving these metros the river becomes ecologically dead.

Then where is the solution?

Since we all are equally responsible for this situation, solution to overcome this is with us only. To give rebirth to our rivers and to ensure free flowing, *nirmal* (unpolluted) water we should accept rivers as center of urban planning and development rather than drains available naturally to carry our sewage and industrial wastes. Government, civil society and spiritual leaders must come together on one single platform and act like a guardian and not ruler of our fresh water bodies.



A three day dialogue under the aegis of Ganga – Yamuna Panchayat was held to draw attention to the ineffectiveness of first Ganga action plan costing about Rs. 1500 crores, in Delhi from 8-10<sup>th</sup> Feb., 2010, which was jointly organized by Tarun Bharat Sangh and Manushi Sangathan in collaboration with Nehru Memorial Museum. The main objectives of this Panchayat were 1. An honest review of the reasons for the tragic failure of the first Ganga and Yamuna



Action Plan from the point of view of the government, Independent experts and civil society representatives. 2. An open and frank dialogue between various stakeholders to explore ways and devise joint strategies to ensure that the 2010 Action Plans for rejuvenating the two sacred rivers of India actually deliver the promised results.

Swami Avimukteshwaranand Saraswati of Jyotirmath presided over its proceedings. It was stated that Ganga and Yamuna are unique, having religious and spiritual significance in the hearts and minds of the Indian people. These dying rivers shall be revived and restored as bounties of nature, only when the task is taken up as a sacred mission jointly by *Sarkar* (Government), *Samaj* (Society) and *Sants* (Spiritual Leaders), in all sincerity as a duty- as dharma- to be accomplished within a targeted time frame. It was told to ban totally on dumping domestic sewage, solid waste and industrial waste into Ganga and Yamuna: It is not enough that waste and polluted water be treated with chemicals and poured into our sacred rivers. It was told to declare immediate moratorium followed by a total ban on land use change of flood plains and declare a permanent and total ban on construction, mining and all such activities detrimental to the health of the river in the catchment areas of the river in the mountains and in the flood plains. Only those activities such as planting trees which enhance the value of floodplains should be permitted.

The new Ganga and Yamuna Action Plans must:

- Be aimed at ensuring that the waters of Ganga and Yamuna flow aviral: Gamnam, gamnam iti Ganga.” This is a pre condition for Ganga and Yamuna waters to retain the same quality of purity as found at Gangotri and Yamunotri.
  - Ensure the protection, rejuvenation and revival of the ecological health, flora and fauna and micro organisms of Ganga and Yamuna. These are the most reliable indicators of the health of the river.
  - Undertake emergency measures for catchment area protection and treatment, protection of existing forests, regeneration and reforestation of Himalayan forests as well as river banks all along the course of Ganga and Yamuna with native varieties and panchvati.
  - Keep the sewers and dirty urban drains away from the rivers
  - Act to enhance rainwater harvesting in the cities to reduce the demand pressure on river water.
- Sayali Joshi

Shrishti Eco-Research Institute, Pune



Drain Pouring Industrial Waste water in the Ganga



If a series of such dams are constructed on Ganga, then, after Haridwar, Ganga will remain as a drain of sewerage and industrial waste water



Glimpses of The Ganga Yamuna Panchayat held on 8-10<sup>th</sup> Feb.2010





## Gandhian Philosophy and Restoration of Rivers

Rev. Yog guru BKS Iyengar gave oath to gandhian puneites to work for river water quality restoration work wholeheartedly in the programme organized at Gandhi National Memorial, Agakhan Palace, Nagar Road, Pune on 30<sup>th</sup> January 2010 to pay tribute to our beloved Bapuji on the occasion of his death anniversary. While addressing the gathering of followers of Gandhian philosophy, he said that the Pune's rivers had been polluted severely due to disconnection from nature and throwing habits. On the dais, Eminent Scientist Dr. Vijay Bhatkar, Pimpri-Chinchwad Mayor Shri. Yogesh Behal, Deputy Mayor Shri. Hiranand Aswani, Shri. Ramesh Seth, ex - MLA and President of NWO, Mrs. Rama Rauta. Mrs. Shobhanatai Ranade, Trustee Secretary of Gandhi National Memorial Society, Agakhan Palace expressed that Bapuji's thoughts are guiding us even today in restoring the quality of rivers for sustainable development of humanity. Dr. Vijay Bhatkar talked about the excellence of India in various fields including IT sector and expected the same to be matched by cleaning of environment. Shri. Yogesh Behal, Mayor of Pimpri-Chinchwad responded with a commitment to demonstrate the results of clean water flowing through Pawana and Mula within stipulated period of 3 years.

In the technical presentations, the experts explained the need of proper selection of management tools and ecological restoration technologies with change of attitude towards the rivers to attain the goal of rivers with sparkling water. Shri. Vijay Paranjapye, Convener of Punya Nadi Sansad in his key note address told the audience to ask the city managers how the tax taken for sewage disposal being utilized. In his outstanding speech, he quoted Mahatma Gandhi's experience of water and sanitation in Pretoria, South Africa and requested puneites be alert not only for rights but also for duties towards environmental and river cleanliness. Dr. Tapas Nandy, Head Wastewater Division and Dr. T. K. Ghosh, Biotechnologist, National Environmental Engineering Research Institute, Nagpur (NEERI) were specially invited to assess the conditions of Pune's rivers and to propose the solutions for the ecological revival of Pune's rivers. In his speech, Dr. T. K. Ghosh presented the work of NEERI on ecotechnological principles to treat the domestic sewage. He told that natural treatment systems are effective in removal of fecal Coliforms from the water and making it safe for non-human consumptions and applications. Dr. Amar Supate, Principle Scientific Officer

Shrishti Eco-Research Institute, Pune

of Maharashtra Pollution Control Board presented the Board's initiative of Eco-village Project at Katewadi, Baramati drawing the similarities with Mahatma Gandhi's concept of self-sufficient village. He told that the green bridge technology is being used to treat the sewage stream in Katewadi a native village of Honourable Minister for Agriculture Shri. Sharadchandraji Pawar. Mrs. Sayali Joshi, CEO of Shrishti Eco-Research Institute presented the case studies of treating the pollution from point sources and non-point sources using ecotechnological vertical filtration and horizontal filtration systems - Green Bridges which would be useful for ecological restoration of Pune's polluted rivers. The programme was organized by National Women's Organization and Gandhi National Memorial Society, Agakhan Palace, Pune in association with Multiversity, PMC, PCMC, SERI and Indian Association of Aquatic Biologists. Eminent citizens, gandhian followers, dignitaries, engineers and scientists participated in the programme. Most of the scientists visited the SERI's installation of Green Bridges on Anandnagar Drain in Pune.

- SERI representative



PI see a link <http://wldb.ilec.or.jp/dl/index.html> for accessing the presentations made on ILBM in meeting at Wuhan after WLC in Nov 2009.