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Point for discussion this month **Fine for Polluter**

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Eternal Words

Our environment is like a patchwork quilt. Each "patch" is dependent on those around it. If one part unravels, it affects the rest

- Hemeon

Economy without ecology means managing the human nature relationship without knowing the delicate balance between humankind and the natural world

- Satish Kumar, ecological campaigner (2008)

To halt the decline of an ecosystem, it is necessary to think like an ecosystem

- Douglas Wheeler

To put your hands in a river is to feel the chords that bind the earth together

- Barry Lopez, author

Dear Readers,

Monsoon has brought life to soils in almost all parts of India once again proving that without water there is no life. Most of the waterfalls in Western Ghats (the mountain ranges acknowledged by UNESCO as ecological hotspot) are rejuvenated running down the basaltic slopes and cliffs.

The National Green Tribunal has announced windfall decision of imposing fines on cities and towns along the River Beas in North India. It's one of the tributaries arising in Himachal Pradesh carrying huge waters from the Himalayas. Central Pollution Control Board has extensively studied the urban pollution in Himalayan Rivers.

But the state pollution control boards in all states of India issued notices to industries irrespective of their compliance and commitment to betterment of environment. Had these notices been issued to city managers and administrators, it would have been better as in India 80% of river and lake pollution is resulted from unplanned urban growth. The example of Rivers Nag and Pili in Nagpur is representative of inadequate measures to eliminate urban pollution.

Thank you,
Chief Editor

Pili Nadi and Nag River: Disregarded Sisters of Nagpur, Maharashtra

- Pradnyesh Agre

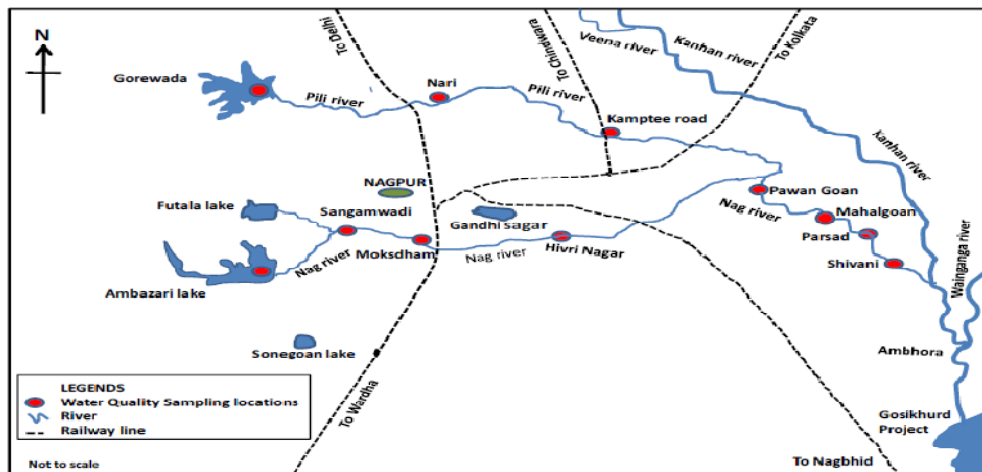
Rivers have major contribution in developing and preserving human cultures along their banks. Industrialization and urbanization have taken toll on the veins of human settlement – Rivers. Every shining and growing city, metro has the other black side of heavily polluted water bodies. Nag River in Nagpur district of Maharashtra state in India is also a victim of unplanned urbanization and development. Once the source of life are now waiting for life saving support.

Nag River, a tributary of Kanhan, gave identity and name to Nagpur is now struggling for its own existence. Nag River along with other rivers Pili and Pora is serving the city from three centuries. Out of which two are dammed on upstream side to cater the need of city forming three major reservoirs. The river banks upstream of city, also serve as Biodiversity Corridors for the fauna and avifauna of the region. There are almost a dozen small man made historical lakes, which used to be a source of water for the city.

Being part of Kanhan-Pench River system, Nag River confluences with Pili River before pouring into Kanhan River in Wainganga (Pranhita), sub-basin of Godavari. From origin to confluence it travels around 50 km. A Lake 'Ambazari' has been constructed at the upstream reaches of the river Nag and was the prime source of water to Nagpur city till a few years ago. The river receives fresh water only during monsoon and is a carrier of sewage and effluent throughout the year. Untreated sewage and industrial effluent of about 345 MLD are discharged directly in the river. Because of this, the river water is dark gray and emanates foul smell. Though most of water bodies in city are being listed in heritage site in 2001; Nag River – the river which gave a city the name yet waiting for rebirth since last 13 years.

The situation is more or less similar for the Pili River. Widely believed that Pili River gets originated from a spot near Gorewada reservoir, its origin is at village Dhaba. Source of water supply to civil lines area before independence, Pili River is now facing excessive pollution and encroachment hurdles. It lost its aquatic biodiversity years ago.

Since the natural water bodies are dammed upstream to cater the fresh water need of the city, rivers passing through core of the city are mainly reduced to sewage carrying corridors. Many of the lakes are filled due to siltation and dumping. Their natural feeding channels are either diverted or vanished as unplanned urbanization has changed their catchment



The major contributors of river pollution are solid waste including non biodegradable material like plastic, fly ash from nearby thermal power plant, waste from brick kilns, untreated industrial discharges, untreated sewage, etc. Lack of management for disposal of solid waste is a major hurdle in development. The biodiversity rich and ecologically important rivers have now been restricted to nullah or long open drains due to myopic vision of administrators.



Garbage generated in East Nagpur ends up accumulating on the banks of Nag River causing irreversible damage to river and environment. Over 20 tonnes of garbage generated within city limit is dumped on the banks of river every day. One can often see piling of Plastic waste near the pillars of bridges on the river. Along the river stretch at many places the situation is so worst that people fail to understand whether trees are laden with leaves or plastic shreds.

Dissolved oxygen levels in all stretches are below 1.0 ppm except the Ambazari lake and Gorewada tank i.e. origin of Nag river and Pili river respectively. Analysis of Nag river basin water shows Higher alkaline pH, BOD (377 mg/l), COD (571 mg/l), Nitrate nitrogen (14.23 mg/l), total coliform (upto 120000 MPN/100ml), Fecal coliform (4171 - 29642 MPN/100ml) indicates the untreated sewage discharge in rivers. These levels of pollution indicate that Nag River is a methane gas generating factory as Mithi (Mumbai) and Mutha (Pune) rivers.

Nitrate content in ground water also increased to alarming level due to pollutants in river. Outbreak of vector borne diseases has become common in areas along the river.

Neglecting this pollution status would lead to long-term effects as Nag River find its way in Gosekhurd reservoir, which is used for irrigation as well as industrial water supply.

“Hamari Nag River” and “Save Nag river” initiatives are spreading awareness among the locals to bring back Heritage status to these both rivers. Various activities like wall painting, clean up drives are being performed to aware every corner of society. Heritage site status may help the activists to demand funding for preservation and conservation but many strict rules of heritage site preservation may become hurdle.

An integrated approach is needed to cater this problem of river and lake pollution. With NGOs, stake holders, governance, finance and technological support, solution to this problem can be established. To develop awareness and get support from every sector of society a well defined River Policy should be implemented which can address every problem of river including pollution, encroachments, sand mining, etc. There is urgent need to prevent sewage ingress in any fresh water body. Urgent action against local authority fail to stop the sewage ingress in the river is required. Restoration of fresh water body should be aimed at improved water quality and sustainable biodiversity.

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National Green Tribunal fines Rs. One lakh to the polluter of Beas

- Pradnyesh Agre

Anyone found polluting Beas River and its tributaries in North India now has to pay Rs One lakh fine as National Green tribunal announced Rs. One lakh on concerned over indiscriminate waste dumping in river.

On 30th July in first circuit bench hearing at Shimla; the tribunal's chairperson Justice Swatanter Kumar warned corporations, councils and individuals not to dump solid waste, untreated sewage or effluents into the river. Concerned Authorities were directed to notify the direction passed in this order for knowledge and compliance of the public at large; because Whosoever is found throwing or dumping any such material, effluent, directly or indirectly into Beas or its tributaries or even at its banks, will have to pay INR 1 lac as compensation on the basis of the 'polluter pays principle.

The tribunal directed Himachal Pradesh Pollution Control Board to depute a senior officer, who shall be accompanied by a representative of the Central Pollution Control Board, to collect samples from four sewage treatments plants set up by municipal councils of Kullu and Manali.

It also required inspecting and examining whether all commercial settlements on the bank of Beas and its tributaries have clearance from the Pollution Control Board of Himachal Pradesh and other competent authorities and where they are discharging their waste, including sewage.

In a separate order, to assess the extent of pollution caused due to traffic, plastic waste and deforestation, the tribunal called for an expert committee to visit Rohtang Pass and submit a report by September 16. It is not disputed that vehicular traffic, littering and excessive human presence in Rohtang Pass area does cause damage to the environment. Besides its geographical status, Rohtang Pass has a tourist attraction, but at the same time, its environment and ecology needs to be protected at all costs. Otherwise it has long term impact and affects downstream environment as well.



National Water Academy celebrating 25 years of its existence!

On the occasion of silver jubilate year; National Water Academy organized half day conference on "water conservation" on 10th July 2013 at NWA, Pune.

The conference was inaugurated by the hands of Hon. Union water resources minister Mr. Harish Rawat in traditional way by lightning lamp. Dr. Chaskar, director NWA; briefed NWA activities and welcomed all invitees and participant. Dr. S. K. Srivastava, chief engineer at the NWA introduced its journey till this silver stand, the role and functions of NWA, as emerging centre of excellence in training water engineers, its march towards international centre for training on water-related issues.



Union water resources minister Harish Rawat, speaking at function as chief guest said, "Nearly 60% of the rainwater in our country gets wasted as it goes straight to the sea. Of the remaining 40%, we can only use 20% of it due to lack of resources. This situation can change after the river linking project. The river linking project that is aimed at transferring water from surplus rivers to deficit areas is a national necessity."

Rawat also emphasized on the need for better flood forecasting and early warning system to deal with disasters like the one in Uttarakhand. Better coordination between state, Union government, non-governmental organizations (NGO) and the media is needed to manage post disaster relief operations, he said.

The country needed foolproof and collective measures to secure water for the future. Adding that if water usage wasn't planned properly, it would be difficult to cater to the country's future water needs.

While giving the key note presentation Dr. C.D Thatte, former secretary to the Prime Minister, Govt. of India, elaborated reduction in wastage of water and evaporation losses are key concepts of water conservation. He explained correct structural and non-structural engineering approaches for conservation of water. He also pointed out SERI's work in purification of polluted streams and how the Green Bridges are also useful to increase the water table.

Er. Chetan Pandit, (retd. CWC) scrutinized that our water conservation efforts are at very primary level as we are talking only about closing taps and prevent leakage etc. There is need to think beyond this and scientifically come up with solution that will boost the tackling power against water crises.

Mr. Ramani Iyyer, member, CII emphasized the central role that water has in the social, political and economic affairs of the country, the continent and the world. He proposed proper management of water resources especially in industrial sector and reduction in water leakages are crucial points.



Mr. Sandeep Joshi, Director, SERI presented his views on sustainability of water systems by recycling urban and industrial wastewaters. He emphasized on quality of water should be maintain for sustainable water resource management. How treatment of polluted drains and stream with help of Ecotechnology can serve the socio-economic improvement from his previous experiences in lake and river restoration. He proposed that reforms in institutional mechanisms for elimination of pollution are must.



Vinod Bodhankar, President Jalbiradari, Pune district put forward the concept of people's participation in River Rejuvenation & restoration by segregation of plastic from solid waste. He focused how the water conservation and river rejuvenation become miracle with people's participation in Aravari, Rajasthan. He also pointed Jalbiradari's "social Model" of water conservation and it's replicability in other as at Agrani River, Sangli and Manganga River, Satara-Sangli-Solapur districts of Maharashtra.

Rajan Nair, former chairman, Brahmaputra board summed up the session chaired by him with his remarks.

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