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Point for discussion this month

Impact of terrorism on climate change.

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Dear Readers,

Let's salute the brave warriors of 26/11 Mumbai attack. In such incidences, we have always shown with grit and endurance to the world that, there is nothing in this living world which can deter us. It's a country of brave and intelligent people. Instead of killing innocents, an ecological war with climate change needs to be taken up urgently.

You might have heard about the disappearing Ram Nadi from Pune's urban map. It's a common danger seen everywhere that river is being engulfed and killed by the voracious infrastructural growth in the catchment. Now many NGOs are coming forward to restore the rivers in Pune. Four years back, River Action Group of about 12 NGOs was formed energized by the work of SERI and CRC's work of ecological restoration of polluted streams. Now, a team of Ram Nadi Cleaning Programme is motivating flat-owners in high-rise buildings and poor citizens of slums along the river to restore the ecosystem of the river.

A news from Delhi is very encouraging for those who want rivers clean that top three officials have been awarded two week imprisonment by High Court for not repairing the a damaged drain that sends sewage into the Yamuna river despite the court's order two years ago. Now, the Kolhapur's Panchganga, Pune's Mula-Mutha, Aurangbad's Kham, and Ulhasnagar's Waldhuni are awaiting such verdicts and revival of ecological health!

Thanking you,
Chief Editor

Excerpts of Article

ENVIRONOMICS - ECONOMICS OF THE ENVIRONMENT AND POLLUTION

- Sandeep Joshi

There is a peculiar asperity world wide that the pollution takes place due to the undeveloped and third world countries only. This is the typical notion developed through principles of modern economics and globalization of economy in the highly affluent countries. In India, the MNC Union Carbide left the ugly footprints of perilous toxics in the Bhopal and now citizens are paying the cost of environmental damage. Economy mingles with ecology only when there are direct and immediate monetary losses due to ecological degradation or natural hazard. The misery is that though the developed countries banned the use of toxic chemicals and manufacturing but they encouraged the marketing, sales, and manufacturing of those chemicals in other countries for their own economic growth and prosperity at the cost of environment and population. Developed countries are rather experimenting on the people and environment of other countries.

Environment in Economist's View

Many economists do work hard in estimating the aggregate National / Social welfare indices like GDP, GNP etc. But they hardly pay attention to distribution of the costs and benefits among individual members of the society. Basically these indices are based on the earnings of a man through any activity. The books of accounts consist of individual, societal and national gains and they track overall changes in the wealth of an individual. Here, the cost of resource depletion is neglected from which individual earns his wealth. The simplest example is of Dhabas on the National Highways in the forested areas. The dhabawallas cut surrounding trees to cook food. Whatever they earn that is addition to GNP. The ecological loss due to cutting of trees is not considered in these calculations. This implies that the modern economics contemplates any human activity as economically positive, be it productive, unproductive or destructive for the environment.

A small economic activity of farming may cause multidimensional losses in surrounding physical environment. Farmers

use fertilizers and pesticides extensively to increase the production manifolds. Many times, the attempts are done to maximize the production for which that piece of lands is inappropriate. Therefore, the need for external inputs increases causing the farmers to take loans. Whatever he earns from his land, the environmental loss is much more than that.

The economists consider the environment pollution as a negative externality. When the human body or any organism excretes any waste, it is easily assimilated in the nature. But, the processed wastes require some kind of reversal of processing to make it amenable for nature to assimilate. The cost of reversal of processing is termed as the externality by the economists and industrialists. They think that it's an additional burden on them, so, the waste is liberated in the environment at the cost of society. Then the society totality has to face the consequences of pollution and the polluter (who releases wastes into the environment) enjoys the economic wealth.

Environomics

The word 'Environomics' introduced by author perfectly explains the monetary reflections of man and environment relationship in totality of earth's balance sheet. Environomics can be defined as the study of impact of man and his activities on the interrelationships and interactions of other biotic and abiotic factors of environment which in turn greatly influence the economic prosperity of the human being only. Man, a social creature has voracious appetite.

Environomics is a multidisciplinary Management Science which is an assemble of ecology, economy, climate, agriculture, industry, market, trading, cost of pollution impacts and it's control, society and standards of living. The expanse of environomics not only limited to present human activities and his satisfaction, concurrent ecological conditions but also it has futuristic view which will take care of environment for next generations. Thus the living standards and economy will be insured for our progeny. Therefore the environomics is science of arts, commerce and culture of human relationship with his local, regional and global environment.

(Published in Maharashtra Herald, 2000)

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News views

Delhi Jal Board Men To Go To Jail

The Delhi high court on Tuesday awarded two-week imprisonment to three Delhi Jal Board (DJB) officials, including its former CEO Arun Mathur, for not repairing a damaged drain that sends sewage into the Yamuna, despite the court's order two years ago. It also fined them Rs 20,000 each.

The imprisonment, however, shall remain suspended for three months, within which the officials are expected to control the flow of sewage from a drain at District Centre, Nehru Place, to one in Greater Kailash-I. Almost Rs 1500 crores have been spent in the last 10 years to get a solution to Yamuna problem. Only 15 % of Delhi's 3,600 million litres per day sewage is treated and even this is released into drains carrying untreated sewage to Yamuna. According to Centre for Science and Environment (CSE), between 75-80% of the rivers pollution is sewage.

About 80% of urban waste in India ends in the country's rivers. Recent samples from the Ganges near Varanasi show that levels of faecal coliform, a dangerous bacterium from untreated sewage, were 3,000% higher than safe bathing levels.

India's 14 major, 55 minor and hundreds of small rivers receives millions of litres of sewage, industrial and agricultural waste. Poor utilization of waste water treatment plants and outdated drainage system has made this problem vary serious. According to Central Pollution Control Board (CPCB) Maharashtra, Delhi, UP, West Bengal and Gujarat are major 63% waste water contributors.

The problem has spread to the seas. About 25% of the population of 644 class I cities and class II towns live in 87 coastal cities and towns. Waste generation in coastal cities and towns is 5560.99 mld, one-third the wastewater generated by cities and towns of the country.

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Visit to Ram Nadi

It's a small river engulfed by Pune Metropolitan growth having huge walls along its course depriving the riverine system of rays of rising sun (Pl refer SERInews, Aug.2007). It's a typical example of killing of water bodies due to pressure of construction industry.

A team involved scientists and local people are trying hard to de-waste the river infected due to throwing habits of affluent societies.

Following photograph is of a clean water spring in the bed of river itself. Poor people use that water for their daily work.



Group of enthusiastic youngsters is visiting the Ram Nadi regularly and tried to develop economical ecofiltration bed for the wastewaters from the adjacent slums.



-Vinayak Mane

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From SERI's Desk

My Experience of Ecotechnology

When I joined, I was asked to work on project of sewage treatment plant using Ecotechnology at Nichrome India Ltd. I started this project on 1st of July 2008 along with my senior colleague Mr. Deepak G.K. by visiting the site. On that day we surveyed the whole premises of industry along with company's representative and took photograph of different Suitable locations for STP First of all company gave us location for construction, but there were 6-7 big trees and we didn't want to cut them. We submitted the survey report in the office. Then designs and drawings were prepared by our design team. The Construction of plant was started under my supervision. It was completed in 15 days including excavation. Plastering and curing was completed in next eight days. Then the filter bed was prepared as per our design and

specifications and the plantation was done over the Soil Scape Filter bed. Then I showed the working of plant to the client's representative for three days and plant was handed over to the client after successful commissioning.

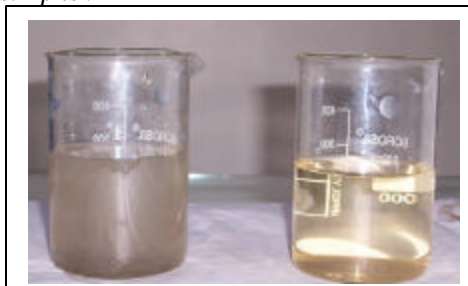
The resultant treated water from SSF was analyzed by us and third party as well. Report showed quite good results of COD reduction. In the outlet sample COD is 38 mg/l and the BOD of treated sewage water is 8 mg/l also the TSS was reduced to 15 mg/l which are within the prescribed pollution control board standards. The plant is running successfully and yields results as per our expectations. The STP treat daily 10 m³ raw sewage water using Ecotechnology in dry and wet cycle. This treated water is being using for gardening which solved the problem of sewage water disposal.

Ecotechnology is a natural system which uses plants and microbes to treat the pollution. The system did not utilize any mechanical device or electricity for biodegradation of the pollutants. The water which comes from STP is absolutely free of odour and all parameters are well within prescribed norms. This project has helped me to gain confidence in project management.

Treatment System at Nichrome India Ltd.



Untreated (left) and treated (right) sewage water samples :



Uday Yadav

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Food for Thought

Warring Countries Can Not Control Climate Change

War starts with lust for control on resources of energy, food, water and reins geographical area as much as possible. In wars and battles, the arms and ammunitions were used to kill the individuals. But now the destructive power of ammunitions have increased billions fold and not only kills individuals but burns hundreds of kilometres including plants, animals and lands – all components of the ecosystem there. Thanks to innovations of United States!

There is a need to study the environmental impacts of bombing in World War II 1940s to Mumbai Attack , 2008 and their hazardous contributions to Climate Change! Attacks on Kuwait and Iraq spelt disastrous impacts on environment. Oil well burning caused black rains on India's west coast. The sea birds drenched in oil spills. The ecological cost of Iraq war was horrifying and nobody reckoned the losses.

Study of impacts of wars and terrorism can be done along with the emissions from industries and urban agglomerations. Can we request Climate Change experts to focus on impacts of wars, blasts, bombing, intentional burning of oil wells etc. Then I think, ecological harmony will come to the forefront while terrorism will get its fate for the very survival of humanity with peace. (Please refer SERInews May 2008 vol. 2, no. 9 for the views expressed on Indo-Pak war).

-Sandeep Joshi

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Eternal Words

From the book 'Ecotaxation', Ed. Timothy O'Riordan, Stephen Smith writes –

Greater simplicity and neutrality in taxation has been seen as a way of reducing distortionary and administrative costs associated with taxation while use of 'green' taxes has been part of a trend towards using 'market mechanism' to cut the economic costs of achieving a given of pollution control.

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