

# SERInews

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*With you in Pursuit of Sustainable  
Management of Finite Water Resources*

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**Point for discussion this month** **ILBM Governance - Global issues of lakes**

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## Eternal Words

The modern definition of Science is basically divided into parts:

Vishishta gyanam iti vigyanam: A special kind of orderly arranged knowledge is called science.

Karya karan sambandh iti vigyanam: The subject in which the relationship between effect and cause is at once clear is called science.

Punah punah parkshit gyanam iti vigyanam: The subjects in which, on repeated experimentation, results are similar, are placed in the category of science.

- Dr.Bhojraj Dwivedi in Scientific Basis of Hindu Belief

Dear Readers,

The Cancun conference is like a death knell for the Kyoto Protocol by 2012. The Kyoto protocol may be discontinued after 2012. That's the message from conflicted discussions among the richer - poorer - developed - developing countries of the old world and the new world. Actually, it means that the attempts to bring "orderliness" among the humane systems as far as resource-utilization and managing the wastes are concerned, have failed to come to a settlement. But there are hopes that can be derived from the atmosphere as shown in the cover photo.

Climatic processes are intriguing, enchanting, exhilarating and always try to attain the earlier equilibrium from where it was shifted because of externalities resulting from the human activities. Even if human systems fail, natural systems never fail in recovering from the disturbances. That's why, there is a notion that ecology (economy of natural processes) is always exploited by economy (business environment of human systems) to maximize profits. This is not sensible business as this may lead to depletion of utilizable forms of resources.

The Ecosystem approach is needed, as has been mentioned zealously by Eugene Odum in the book titled "Ecology" - a master piece of understanding the similarities of urban systems and natural ecosystems. Sandeep Joshi in his article of Ecosense has tried to sensitize business towards sustainable use of resources and management of waste to derive utilizable forms of matter and energy from "misplaced resources". Therefore, even if the Cancun talks fail or the Kyoto Protocol dies off, the natural processes and technologies will protect the world from the impacts of deteriorated environmental health. That is what has been shown in the slides of IL<sup>2</sup>BM given in this issue.

We request all awakened readers to use these phrases, article and slides to sensitize decision-makers at all levels in government, public and private sectors in the year 2011 to evolve a better ecological and economical order in national lifestyle for sustainability of human kind.

Thank you,  
Chief Editor

## Ecosense - Sensible Business With No Destabilization of Ecological Processes

- Sandeep Joshi

Development and pollution are two sides of the same coin in the present context of the kind of businesses being promoted at the cost of environment quality. But environment quality has become the buzzword since the 1950's incidents of Minamata disease in Japan, London's smog, Los Angeles's photochemical smog stunned the developed nations by claiming unprecedented casualties. In addition to the oil spill of Exxon Valdez, Ozone Depletion, Chernobyl accident, Bhopal leaks and global warming like environmental casualties are grappling the technology-driven modern world, incessantly wanting the comforts at the cost of ecology and environment.

The environment was supposed to be the inexhaustible resource for human development and also the recipient of human waste having a never-ending assimilative capacity. It has become a dump-yard to throw the waste unscrupulously by the industrial, commercial and urban establishments. So, economy in man's set-up has taken over the natural environment. For maximization of profits, markets twist ecology - ecosystems - the very life on earth.

Industrialization and urbanization in 18<sup>th</sup> and 19<sup>th</sup> centuries caused severe pollution of rivers in United Kingdom, Europe and other developed countries. Blue rivers became sewage rivers / black rivers everywhere and the developing countries are following suit. The Kyoto protocol succeeded in creating awareness among the prolific consumers of energy and resources; on "prevention" it did succeed to some extent but regarding waste management it has to go a long way. Otherwise you may want other sets of international or national rules, laws, guidelines, treaties, conventions, agreements to maintain environment quality for the public; since they are the users of products and services, they are to be governed.

Dutiful governance or commerce will lead the human race away from extinction because its very survival and business is solely dependent on a culturally steady and law-abiding society. But in today's context, the expanse of commerce sense needs to be widened with a greater understanding of responsibility and necessity. The vista should not be limited to profits, accumulation of resources or control of

geographic region with vitriolic vision, mission and actions. Rather self-restrained 'live and let live' symbiotic behaviour will bring harmony among individuals, communities and systems leading to sustainability.

This starts with the understanding of social and ecological interactions and inter-relationships for equilibrium. Democratic principles might be well-thought of for the welfare of all but the actions result in exploitation of resources and burgeoning of the economy without equality among the stakeholders – governance, commerce and society. Governance and Commerce destabilize ecological equilibrium in the very name of development at the cost of social and individual health by ill-attending the anthropogenic waste generated in the growth processes.

Ecosense is the sensible business of weighing infrastructure and environment quality equally because any growth without healthy living is meaningless. It is senseless growth of urban economy if it doesn't care enough for the environment from where it gets energy (electricity), water (supply from rivers, lakes and groundwater), food (agriculture) and waste-receiving water bodies and lands.

Ecological intelligence lies in the cycling of material in the urban ecosystem without naming it "resources" or "wastes". Nothing is wasteful in the urban systems. But there is need for judicious selection of decentralised and centralized waste management systems which require minimum external energy and material inputs to effect the transformation of wastes into utilizable and assimilative forms. Therefore, liquid wastes and solid wastes are to be dealt with at minimum handling capacity, may be at individual houses or apartments or colonies but not at MLD capacity and tens of hundreds of tons' capacity which tempt city-managers to use a mechanistic and materialistic approach instead of the ecosystem approach.

Ecologically intelligent governance (EIG) and ecologically intelligent business (EIB) can make life comfortable for everyone. It needs understanding of the harmonization of all developmental processes and ecological processes with all corrective measures which are eco-friendly, economically viable – meaning affordability of capital and operational expenditures, and socially acceptable – meaning cultural adaptation of procedures and protocols. There is sense in sustainability!

## Concepts of Ecological Health Improvement of Lentic & Lotic Systems

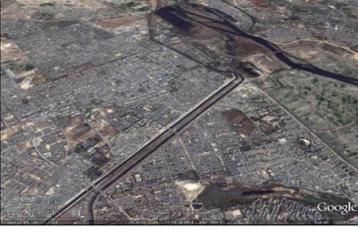
- Presentation by Sandeep Joshi, Ecotechnologist

This presentation was conceived and created during the interactive sessions of final review meeting of ILBM in Nov. 2010 in UNEP-ILEC Headquarters, Kusatsu, Japan.

### Concept of Ecological Health Improvement of Lentic & Lotic Systems



Creating a clean ecological ambience, blessed with beautiful water body and biodiversity for the visitor's delight and wordless education about the healthiness of environment



Planning minimal use of man-made electricity, & maximum use bio-energy; growth of indigenous species and improvement of ecological diversity

