



# 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** **Means of Conservation of Natural Heritage**

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## Eternal Words

**We are committed to cleaning up the air and cleaning up the water. But we also are committed to a strong economy, and we are not going to allow the environmental issue to be used sometimes falsely and sometimes in a demagogic way basically to destroy the system—the industrial system that made this the great country it is.**

*- Richard Nixon (1913-1994), 37th President of the United States, Remarks at a Question-and-Answer Session with the Economic Club of Detroit, 23 Sep 71*

**Man will survive as a species for one reason: He can adapt to the destructive effects of our power-intoxicated technology and of our ungoverned population growth, to the dirt, pollution and noise of a New York or Tokyo. And that is the tragedy. It is not man the ecological crisis threatens to destroy but the quality of human life.**

*~René Dubos, quoted in Life, 28 July 1970*

Dear Readers,

This cover photo is of one of the scenic beaches at the foot the Western Ghat, a world renowned natural heritage site. These mountain ranges in western part of India are really blessed with nature.

Presently there are discussions at different levels over the report on Western Ghat by a committee formed by then Environment Minister Mr. Jairam Ramesh. This committee was headed by renowned ecologist Dr. Madhav Gadgil. Delhi High court has ordered the central ministry to make the report public.

The same old conflict between development and nature conservation. I think in such situation two more things are involved i.e. geo-politics and eco-politics. The gap between scientists and governance needs to be bridged.

We will have next SERInews issue discussing about the fact findings in the above said report and economical and political concerns of the governance.

Dr. Masahisa Nakamura chairman of ILEC organised a seminar at UNEP head quarters Nairobi in Kenya to discuss the concepts of ILBM (Integrated Lake Basin Management) in comparison with IWRM (Integrated Water Resource Management) and IRBM (Integrated River Basin Management). These three concepts are basics of good governance for sustainable water resources management. Actually not only developing countries but developed countries also need a well set protocol and action plan to protect water bodies from stresses and pressures of development. There is a need to draw an adaptation methodology to protect water quality by checking the pollution from point and non point sources. Zero electricity treatment systems will be affordable for all types of settlements - urban, industrial and agricultural.

Thank you,  
Chief Editor

## **Presentation by Sandeep Joshi on Selected Case Studies in India of Sustainable ILBM Process in UNEP-ILEC Seminar on ILBM on 23<sup>rd</sup> April 2012**

- SERI Team

Sandeep started his presentation with definitions of IWRM, IRBM and ILBM and their emphasis on related issues - as IWRM talks about water use, supply, wastewater treatment etc. IRBM expands its horizon to upstream - downstream of watershed of the river with respective human and physical endowments, poverty alleviation and protection of ecosystem services while ILBM with principles of lentic and lotic water systems, resource values, ecosystem services and governance integrating business (policy and finances), culture (institutions and participation) and development (Knowledge and technology) having emphasis on livelihood, commitment to planning, network and sustainability.

He presented case studies of Ujjani Lake in Maharashtra state, ecological restoration of Ahar River of Udaipur in Rajasthan state and Buddha stream in Punjab state explaining the community participation with government institutions working for the goal of restoration of degraded water bodies and the ownership demonstrated by the local people and NGOs for sustainability.

He said that the performance indicators were restricted to stress parameters such COD, BOD etc., through these water body restoration activities some other parameters are evolved such as acceptance by resident population, economic growth by using treated water, use of water for agriculture and fish productivity, which has led to overall growth of pollution-stricken river and Lake Basin. He emphasized on social audit of the ecological treatment systems by the people who are beneficiaries of treated water. He expressed the need for better coordination between the government institutions, lentic-lotic water experts, communities for sustainable lake management. Finally, he compared IWRM, IRBM and ILBM on economic terms saying that IWRM and IRBM use more of financial, infrastructure and human capitals while ILBM dwells largely on social and ecological capitals.

*Glimpse of UNEP-ILEC Seminar*



**ESPN - EAGLO SCIENTIFIC MEETING / SCENARIO WORKSHOP  
(24th - 26th April 2012)**

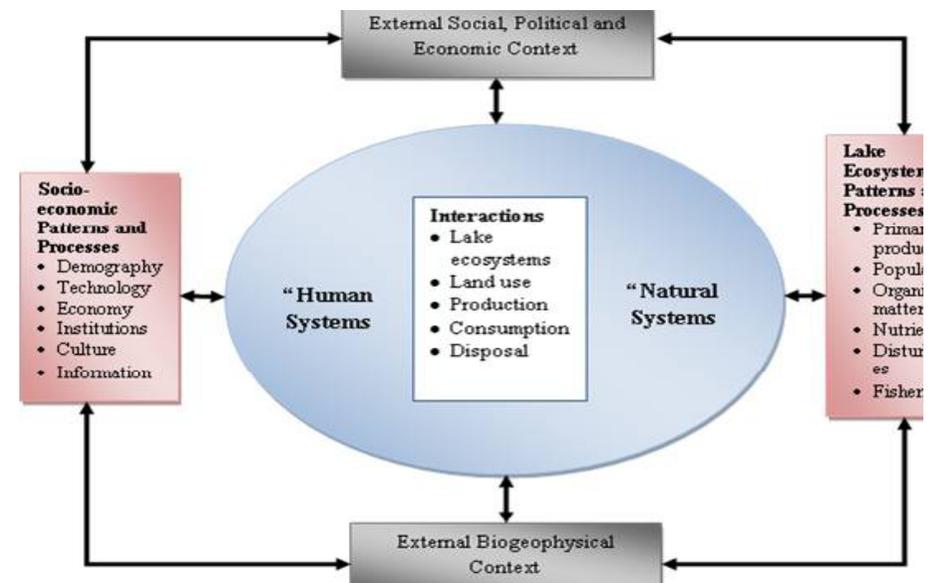
Sandeep Joshi, Environment Technologist & Impact Analyst of Shrishti Eco-Research Institute, Pune, India attended this meeting on invitation from Prof. Eric Odada, Convener of EAGLO, UNU and University of Nairobi, Kenya.

The participants from ILEC, Kigali Institute of science and Technology, University of Leicester, Makerere University, University of Nairobi, Univrsity of Calabria and many others contributed various themes, and thoughts.

East African Great Lake Observatory (EAGLO) Mission

- To create monitoring protocols for the sustained monitoring of resource quality and ecosystem functioning
- To compare status of African Great Lakes on the basis of ecological and socio-economic analysis
- To develop lake models to examine future scenarios in relation to perceived regional climate and socioeconomic variations.

Workshop started with discussion on various issues related to lakes as -



Key Issues for Uncertainty over next two decades were elaborately discussed and the implications of this uncertainty and the response of government as well as stake holders were pointed out in this 4 days conference.

2012	2020	2030
1. Unpredictability of rainfall	1. Rate of population growth	1. Proportion of the population out of the poverty trap
2. Variability of fish stocks; vegetative production	2. Political integrity	2. Rate of increase in Temperature
3. Rate of catchment degradation	3. Rate of catchment degradation	3. Rate of catchment degradation
	4. Availability of water resources (quality and quantity)	

#### Implications:

1. The population growth over a period of time will create pressure on resources which will increase in conflicts among resource users.
2. The rise in average temperature will lead to desertification, food insecurity, diseases, conflicts in water resource use
3. Pollution of water resources will have impact on food security
4. Degradation of the water cycle, shift in seasons (protracted droughts and unpredictable rainfall patterns), increased soil erosion, food insecurity
5. The fast changing catchment will lead to pollution and degradation of water resources, loss of soil fertility, biodiversity loss, eutrophication, increased sedimentation rates

#### Corrective measures

1. Regional cooperation, improved management of resources
2. Sustainable management of resources, improved provision of goods and services, reduction of catchment degradation

#### Responses

1. Provision of new infrastructure, better management of resources
2. To encourage regional integration, alignment of local laws and regulation to the regional setup/policies
3. Sustain and diversify the source of incomes, improve education towards sustainable management of resources, increased awareness about action and policies that sustain the positive trend
4. Better monitoring of rainfall systems/improved forecasting, IWRM (water demand management, improved water management)
5. Better prediction of future temperatures using models, adaptation strategies, promotion of drought resistant crop varieties
6. Improved fisheries management, provision of assistance on alternative livelihoods (microcredit)
7. Improved catchment management, erosion control, protection of wetlands and riparian habitats, improve transport infrastructure
8. Improved management of water resources, water harvesting, improved water recycling technologies.

#### Adaptation strategies to global and local Impacts of climate change:

##### 3 Major steps:

- a) Compilation of information and data; further research (micro-models) about **vulnerability** and **resilience** of East African lakes towards temperature increase, rainfall variability and ground water connectivity.
- b) Investigating the types of **responses of communities**; Identifying ecological indicators for climate change and putting up a monitoring system
- c) Developing adaptation strategies:
  - using scenario information from modeling to (i) make changes in resource use in time (ii) Science - ecosystem approach based restoration of water bodies
  - Move away from sectoral interests to a more integrative water management (governance issue)
  - time scale - some measures require a long term commitment and continuous political engagement
  - Connect problem creators - polluters (waste water, eutrophication) to victims such as fishermen - awareness creation but also legal framework is necessary

## Best practices

EAGLO Best practices – main lessons learned that could/should be extended across the region

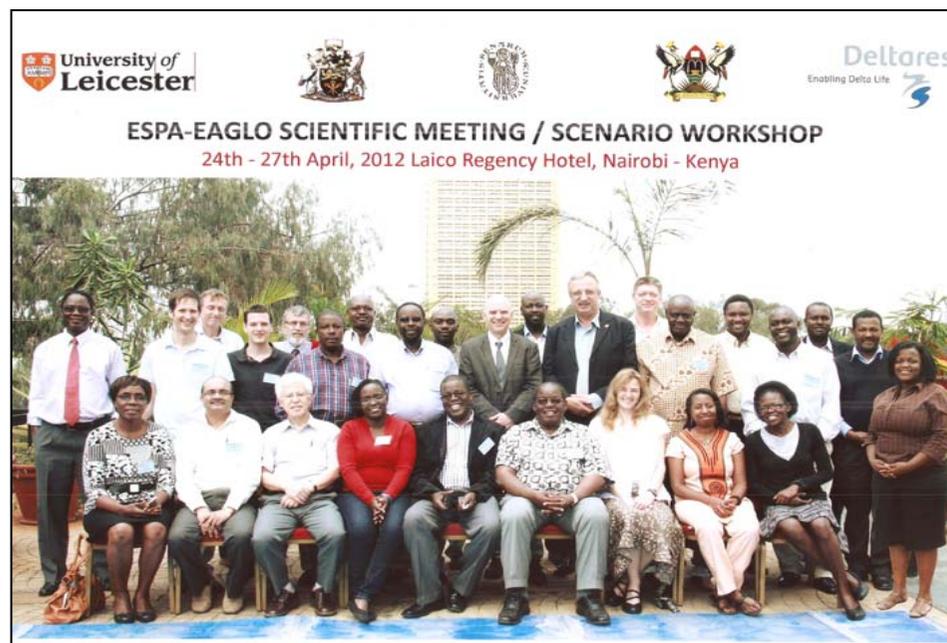
**Capacity building** – To increase the capacity of local communities sustainable knowledge transfer and exchange is most important.

**Policy** – Co-management with new approaches and tools (considering traditional structures) and translation of science into a language understood by the different stakeholders to have sustainable solution.

**Ecosystem services** – Economic evaluation, better modeling of climate and local impacts on ecosystem services are needed to be evaluated.

**Fisheries** –livelihood alternatives should be provided to increase income capacity. Value addition in fish products can provide supportive economy. Trophic chain analysis can be used as a tool in fisheries

**Tools and methods** – Successes of manuals and incentives for conservation, repeatable models of littoral zone management for restoration, availability of new lake basin management approaches, packaging tools for different stakeholders, improve data collection and analysis



Shrishti Eco-Research Institute, Pune

## Western Ghat

- Pallavi Patil

This month, the Delhi High Court issued an order to the Ministry of Environment and Forest (MoEF) to publish summary of the Western Ghats Ecology Panel report (WGEEP) authorized by Prof. Madhav Gadgil on the ministry's website within 30 days.

The WGEEP was constituted by the Ministry of Environment and Forests (MoEF) in March 2010 to assess the ecological status of the Western Ghats, which will help to take precautionary measurements for conservation, protection and rejuvenation of the ecologically sensitive zones/region of Western Ghats. Prof. Madhav Gadgil had submitted his summary report to the MoEF in August 2011.

Under the Right to Information (RTI) act an application was filed against MoEF to publish the summary of the WGEEP report. But the MoEF argued that the report was not finalized and disclosure of the documents would be affect the scientific, strategic or economic interests of the states –Maharashtra, Gujarat, Goa, Karnataka, Kerala and Tamil Nadu. Also it would affect the decision making process.

High Court noted that, making the report public will help MoEF to have participatory process of debate to have a strong policy in public interest.

Now, the Ministry of Environment and Forests (MoEF) has finally publish the Prof Madhav Gadgil panel report on ecology in the Western Ghats, but with a disclaimer on 23<sup>rd</sup> May and public comments have been invited within 45 days on this email ids - [amit.love@nic.in](mailto:amit.love@nic.in), [sv.godavarthi@nic.in](mailto:sv.godavarthi@nic.in).

You can download the summary report through this link - <http://moef.nic.in/downloads/public-information/wg-23052012.pdf>

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