

Report of National Seminar on  
**Healthy Rivers-Ecosystem Benefits and Prosperity**  
at Lucknow Local Centre on September 19-20, 2016

Indian Water Resources Society provided opportunity to its Lucknow Centre to organise national seminar on “**Healthy Rivers-Ecosystem Benefits and Prosperity**” at hotel Renaissance, Gomtinagar, Lucknow on September 19-20, 2016 in collaboration with PACT (UP Irrigation and Water Resources Department) and WWF-India, New Delhi, BBA Central University, Lucknow, Sardar Sarover Narmada Nigam Limited, Gandhinagar, Gujarat, The Institution of Engineers, UPSC, Lucknow and Water Management Forum, Ahmedabad, Gujarat.

The seminar was inaugurated by Sri Shivpal Singh Yadav, Hon'ble Minister, Irrigation & Water Resources, PWD, Cooperative, Revenue, Perti Bhumi Vikas, Government of Uttar Pradesh.

Photo: Inaugural session addressed by Sri Jagdish Mohan (Chairman, IWRS Lucknow Centre) while dignitaries present on dais are (from left to right) Er. Ravindra Kumar (Convener), Er. D.K.Dudeja, (formerly E in C, UPIWRD), Sri Shiv Pal Singh Yadav (Chief Guest), Er. C.D. Ram (E in C, UPIWRD) and Er. R.S.Gupta, Treasurer, IWRS, Lucknow Centre.

About 200 delegates from Irrigation Department, Groundwater department, Central Water Commission, UP Remote Sensing Application Centre, UP Water and Land Management Institute, UP Project Corporation, State Water Resources Agency, PACT, Water Works Lucknow and WWF-India participated in the seminar.

Objective of the seminar was to discuss strategies and provide River Restoration Framework and way forward for ecosystem revival, conservation of biodiversity, to improve urban and rural water quality and implementation of Environmental flows in rivers. Out of 25 papers 20 were presented in 5 technical sessions- Towards Healthy rivers, Implementation of UP Water Sector Restructuring Project-II, River basin planning issues, Bridging the gap in SIT policy and Use of smart technologies in water governance. Participants were from Uttar Pradesh, Uttarakhand, Delhi, Gujarat, Andhra Pradesh and Bengal representing Ganga, Yamuna, Narmada, Brahmaputra and Krishna river basins. Proceedings of the seminar was also inaugurated by Honorable Minister, Irrigation and Water Resources, Government of U.P. Sri Shiv Pal Singh Yadav ji.

Er. Jagdish Mohan, Chairman, Er D.K. Dudeja, Co-Chairman and Er. Ravindra Kumar, Convener, IWRS, Lucknow Centre, finalised the recommendations of the seminar on the basis of presentations made by authors.

The recommendations of the seminar are attached for wide circulation and information.

## **RECOMMENDATIONS**

Healthy Rivers could ensure ecosystem services remain available to society in a climate change induced uncertainties so that the Country economies are more robust. Taking on board the risks and issues of the availability of water resources in the long-term planning for poverty reduction, economic development and welfare maximisation for all living creatures, we are unanimously of the opinion that:

1. Water conservation, its augmentation and resource recovery is a must. Resource sustainability requires direct action to conserve, protect and enhance natural resources.
2. There should remain a balance between extracted water and water returned to aquatic ecosystems and aquifers, ensuring their long-term sustainability.
3. There is a close relationship between water, food and energy. If we save water, we save energy also. Improvement in irrigation water use and availability of these two resources (water & power) is key to the food security. Improving efficiency in the use of resources is crucial to sustainable agriculture.
4. Wastewater from all major human uses has to be collected and treated, and reuse is maximized. Regenerated waste water could be added to resource availability side.
5. Effective governance is essential for the sustainability of both natural and human systems. Accounting of resource consumption index with development index and its comparison with monetised value of goods and services provided by waterbodies ecosystem should be initiated for policy makers to make investments in restoration of rivers and wetlands.
6. Shifting emphasis to Precipitation Management is basic for protecting Healthy Basins/Healthy Rivers.
7. There is a need to rationalise the allocations of water for humans & nature.
8. Assessment of Environmental Flows Requirements (EFR) of a river and its management considering tradeoffs for its implementations on ground policy shift and mindset change is prerequisite requirement to make our river Healthy.
9. Use smart state of art technologies bridging the gap in Science, Innovation & Technology (SIT) policy in water management and planning and operations of all control structures such as Reservoirs behind dams, Barrages and Regulators etc.
10. Inland waterways development in feasible reaches of river zones should be encouraged to ease road congestion for transportation and navigation.
11. Real Time Monitoring and Forecasting of weather have high potential to mitigate the natural disasters related to water.
12. Let river flows for all and forever.