

Water management: Preserving our heritage and moving with the times

View(s):

This year, 2013, is the UN Year of Water Cooperation.

A new programme of research led by the Colombo-based **International Water Management Institute (IWMI)** will provide vital information to help address water and food security issues in Sri Lanka. Published last week, Cooperation for a water-secure future: A new research strategy for Sri Lanka, outlines an ambitious programme of investigations that will help fill vital gaps in Sri Lanka's knowledge of hydrology, ecology, economics and agronomy.

Addressing the Sri Lanka Water Expo 2013 at the Bandaranaike Memorial International Conference Hall (BMICH), Jeremy Bird, Director General of **IWMI**, said that the new initiative will support the government's development strategy by targeting four key areas:

- *More productive use of water in agriculture.
- *Reducing vulnerability to floods, droughts and the impacts of climate change.
- *Mainstreaming sustainability into the management of natural resources and ecosystems.
- *Managing and sharing knowledge to improve decision-making.

"This country has a proud heritage of advanced water and irrigation management which continues to inspire **IWMI** scientists," said Bird. "But as Sri Lanka develops and pressures on natural resources intensify, we need to ensure that economic growth is sustainable and based on the latest technologies. Nowhere is this more important than in the water sector. With this new research for development strategy, we believe we can build on our achievements and cooperation with the Sri Lankan Government over the last quarter century, and respond to key water management issues for the benefit of the country."

In general, Sri Lanka has enough water to support agriculture and economic development whilst still maintaining its precious natural heritage. However, many challenges remain due to spatial and temporal variations. Over-pumping of groundwater from wells on the Jaffna Peninsula, for instance, could lead to dramatic increases in salinity, rendering the water unsuitable for both farming and domestic consumption. The trend in dry-zone agriculture away from large tank systems to smaller on-farm wells and pumps, may lead to poorer farmers finding it harder to access water. Also, climate change will exacerbate many existing problems, not least by making rainfall patterns more variable.

IWMI believes, however, that issues like these can be effectively addressed by the application of evidence-based policy initiatives, improved planning founded on an improved understanding of the groundwater system, more efficient management of surface systems and application of simple new conservation technologies, such as drip irrigation, waste reuse and rainwater harvesting. Working in partnership with the ministries of Irrigation and Water Resources Management and National Water Supply and Drainage, the Institute is developing a new approach to its research, specifically tailored to the needs of Sri Lanka.

IWMI is the only international research institution headquartered in Sri Lanka; a location chosen precisely because of the country's rich history of water management. Through collaborative research activities, the Institute trains local scientists and has worked to remedy acute water problems, such as helping to restore wells after the 2004 tsunami. **IWMI** also hosts one of the most advanced geographic information system (GIS) and remote sensing units in the region, which is able to use satellite data to accurately map patterns of flooding, drought and agricultural use.

Dr. Herath Manthirithilake, Head of **IWMI's** research programme in Sri Lanka said they were working with government partners to develop an online water data portal for Sri Lanka that, for the first time, would give researchers and policymakers free access to timely, island-wide hydrological data.

IWMI's new research strategy for Sri Lanka can be downloaded at www.iwmi.org