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MEDIA RELEASE

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The High Cost of Missed Opportunities in Managing Water for Food, Livelihoods and Domestic Use

Colombo, 22nd March 2009. “Missed opportunities are costing governments millions,” says Dr. Colin Chartres, Director General of the International Water Management Institute, based in Sri Lanka. IWMI’s research on efficient water use is demonstrating practical ways to manage water for multiple use by households and by users in the agricultural, industrial and energy sectors. “We can avert the looming water crisis,” says Dr. Chartres, “if we increase water productivity in agriculture, make targeted investments and put in place the right institutional measures. A narrow sectoral focus is what stands in the way of creating links among and between sectors that would result in new options and opportunities and far more effective use of water.”

With a view to increasing water productivity for food security and livelihoods, IWMI, and partners in Sri Lanka will hold a national conference on “Water for Food” in June this year. The main purpose of this conference will be to look at ways to improve farmer income and food production while promoting sustainable practices for using water more productively at different levels. The conference will bring together researchers, policy makers and practitioners to address key water issues.

It was King Parakramabahu the Great who said “Let not a drop of water flow into the ocean without first being useful to man”. Sri Lanka’s ancient water supply and irrigation systems were highly efficient and were built to serve multiple purposes. Research conducted by IWMI’s worldwide network offers numerous illustrations of how water infrastructure can be planned to facilitate multiple uses of water. “The reality is that most systems that were designed for a single use end up being used for other purposes anyway,” says Dr. Chartres. “For example, canals designed and built for irrigation are almost always used for washing, bathing and fishing as well, so why not plan for those uses from the beginning?”

IWMI’s research has shown that integrating irrigation water and drinking water supply, for example, contributes to better health, improved food security and more income generating opportunities, especially for women. Multiple use systems are also more cost effective and the additional income earned from more productive uses of water can help cross-subsidize domestic uses. The added benefit is less damage from users trying to adapt a single-use system to their own needs without permission or supervision.

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Dr. Barbara Van Koppen, principal IWMI researcher on Water, Poverty and Gender says, “Multiple use systems at farm and household level greatly benefit those with little or no land, especially women. Multiple use systems also contribute to the Millennium Development Goals and deliver “more MDG per drop” than single-use systems.” IWMI’s research shows that investing in MUS can generate an increase in net annual household income. Women in Asia and Africa spend hundreds of hours a year fetching water. Studies show that when they are relieved of that burden, women will put those hours to productive uses. They grow food or cash crops, rear livestock or engage in small-scale enterprises.

One of the reasons why this isn’t happening more often is because too few countries invest sufficient resources in getting the data they need to tell them how much water is available and where and how it is being used. Without that data it is just not possible to plan or to formulate policies that promote links between government departments responsible for water, agriculture, sanitation, environment and other communities. **One** example of how data plays an important role is seen in IWMI’s wetland work in Sri Lanka where studies were carried out to better understand some of the changes in the provisional ecosystem services provided by wetlands such as food and livelihoods, and how they are impacted by changes in water regimes in the wetlands. All the data collected is useful when looking at how wetlands can be made more productive.

Without a new view of water management we are very likely going to see a collapse of the ‘environmental services’ provided by watersheds and wetlands that give us most of our freshwater, which means dramatic increases in the cost of water treatment. In developing countries, increased frequency of water supply interruption and water rationing in cities would affect water users in every sector and could lead to conflict and ‘water wars’. Says Dr. Chartres, “the cost in environmental damage and human suffering would be impossible to calculate.” The forthcoming national conference will specifically look at practical approaches for sustainable development and identify coping strategies for water scarcity, food security and climate change in Sri Lanka.

Dr. Chartres says, “Politicians and policy makers need to be briefed on the scale of the water crisis we could be facing. If we don’t rethink how we use water, many countries will undoubtedly face more frequent and more severe food crises and in some cases famine and social breakdown.” Scientists at IWMI predict that failing to meet the Millennium Development Goals on safe drinking water and improved sanitation will lead to increased incidence of disease, higher mortality rates and stalled development prospects for hundreds of millions of people in the developing world. As cities expand more and more pressure will be placed on water supply and sanitation.

For example, most cities in developing countries have limited sewage treatment facilities. The sanitation sector is not spending enough attention to or investing enough in toilets, latrines and treating household sewage. Many existing facilities don’t work because there is no maintenance. Other systems provide primary treatment and then discharge the partially treated domestic and industrial waste into waterways or the ocean. IWMI, together with local and international partners has worked with communities in Sri Lanka and Bangladesh to develop plans for managing wastewater and reducing the risks to downstream communities, while improving the living conditions of low income groups.

Dr Pay Drechsel, Leader of IWMI’s thematic research on Water Quality, Health and Environment says “Over 90 per cent of the waste water generated worldwide enters the environment through drains and gutters with no effective treatment. In three out of four cities in the developing world, farmers are irrigating food crops with polluted water.” “However, not everything in ‘polluted’ water is harmful,” he says. “Waste water from homes and factories can be rich in nutrients for food and fodder crops. In peri-urban

areas in Asia and Africa, wastewater is often the only source available during the dry season. An IWMI survey of 53 cities showed that over 700 million people are eating fruits and vegetables irrigated with untreated or insufficiently treated waste water, which could pose a serious health hazard.

Meanwhile, IWMI research also shows that there are ways of complementing simple treatment plants with safe irrigation practices to reduce health risks. Treatment costs are reduced, farmers get the water they need to grow their crops, and city inhabitants get a secure supply of safe, locally produced food. "This is a great example of an opportunity for cross-sectoral collaboration and multiple use of water," says Dr. Chartres. He remains optimistic. "The concept of Integrated Water Resources Management offers a way of looking at water management that opens up a world of new options and opportunities. All we have to do is make the right connections and the right investments. Looking at water management holistically rather than by sectors, opens up a whole new investment arena."

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Notes to editors:

The following video/audio clips and background material are available on our newsroom page at <http://www.iwmi.cgiar.org/WorldWaterDay/>

Interviews:

Videos: *World Food Crisis and its Impacts on the Poor, with Dr Colin Chartres*

Missed Opportunities for Sharing Water, with Dr. David Molden

Irrigation using Wastewater, with Dr. Pay Drechsel

Exploring linkages between changes in land cover (use) and local livelihood systems in wetlands, with Dr. Sonali Senaratna-Sellamuttu

Audio: *Multiple Use Water Systems with Dr. Barbara van Koppen*

Print material: *Bridging the Water Divides: Addressing Missed Opportunities*

Climbing the Water Ladder: Multiple Use water Systems

Australian soil and water scientist, Dr. Colin Chartres is Director General of the Sri Lanka-based International Water Management Institute (IWMI), a non-profit research organization focusing on the sustainable management of water resources for food, livelihoods and the environment. IWMI is one of 15 research centers supported by the Consultative Group on International Agricultural Research (CGIAR). Chartres has 30 years' experience in driving research and policy reform in natural resources management.

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Dr. Pay Drechsel is a trained environmental scientist with over 20 years of experience. He also leads several projects on food safety where usually untreated wastewater is used for irrigation in urban and peri-urban agriculture.

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Dr. Barbara van Koppen is Principal Researcher Poverty, Gender, and Water at IWMI. Her focus is on action research on rural water development for multiple uses in Africa and Asia. She is based in IWMI's Southern Africa Regional Program.

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Dr. Sonali Senaratna Sellamuttu is a Researcher at IWMI with over 12 years of experience in natural resource management. Her work focuses on studying the inter-linkages between wetland ecosystem services, (especially coastal ecosystems) and livelihoods and poverty - related issues, using integrated approaches.

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