

Book Launch

ADB-IUCN joint publication

WaterWealth: Investing in Basin Management in Asia and the Pacific

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CENTURYASIAN ECONOMYBOOMING CITIESBUZZING PEOPLEUPBEAT WATERWEALTH?

YES! Learning from good work in basin management across Asia and the Pacific.

WATERWEALTH?

INVESTING IN BASIN MANAGEMENT IN ASIA AND THE PACIFIC

WATERWEALTH? highlights how people work together to secure water for all through innovative approaches in basins.

Drawing from a cross section of 43 case studies, WATERWEALTH? highlights challenges in improving governance and water performance and illustrates examples of new approaches and practices that basin managers are now applying to secure water for all. The solutions presented are home grown, building on international experience rather than transplants from elsewhere.

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WATERWEALTH? INVESTING IN BASIN MANAGEMENT IN ASIA AND THE PACIFIC

WATERWEALTH?

INVESTING IN BASIN MANAGEMENT IN ASIA AND THE PACIFIC

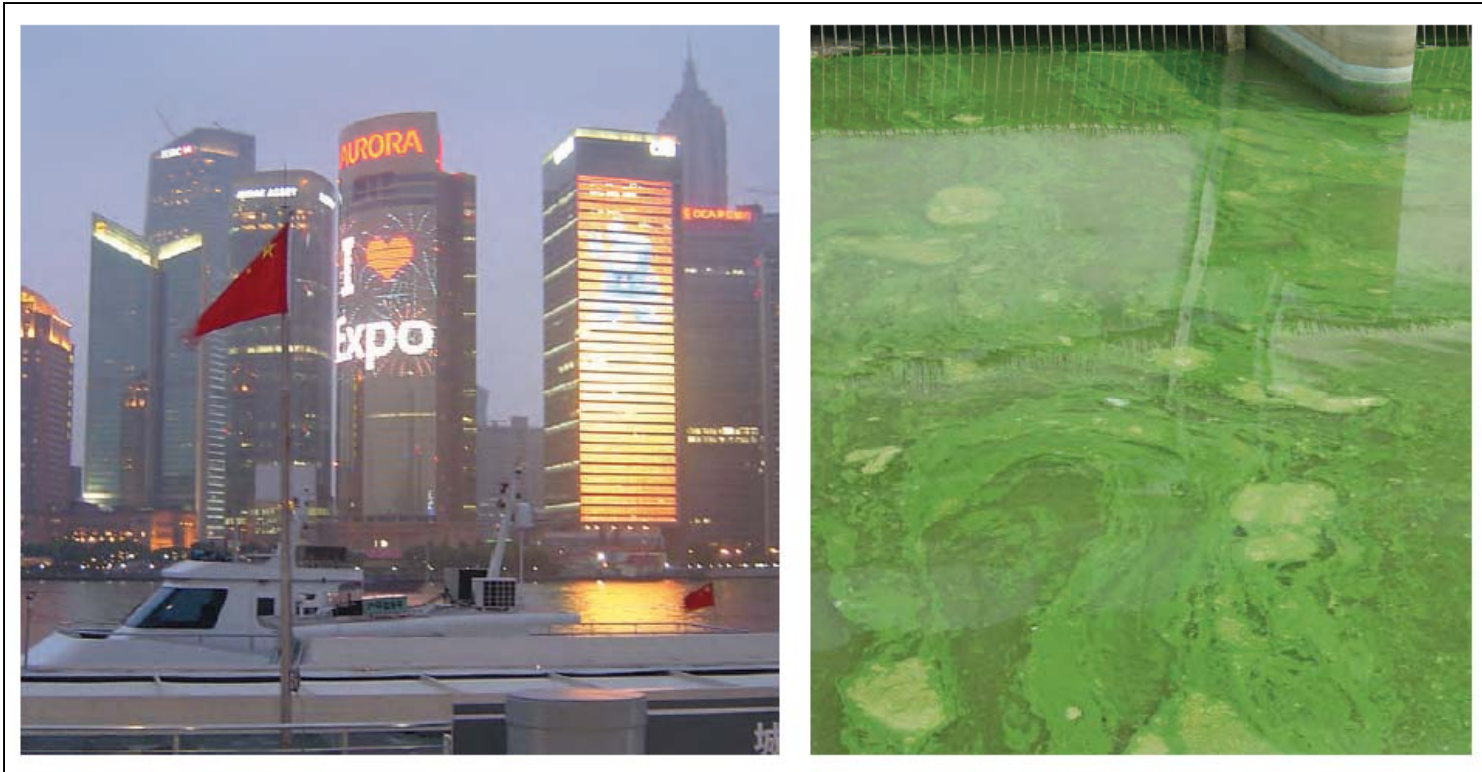






**Investments in
river basin
management
drive economic
growth**





The PRC today is the world's second largest economy. Basins featured in this report contribute a large percentage of the country's GDP. The impact of heavy pollution on freshwater supply and public health, as seen in these basins, highlight the critical links between basin management and sustainable economic growth. Clean-up programmes to restore the health of the Songhua and Yellow Rivers and Chao Lake have become examples of innovative policy and practice.










Livelihood for all: Fishermen from Bangladesh (left) and Japan (right). Their livelihood is dependent on fishing, for which healthy rivers with abundant fish are necessary. The issues of livelihood, clean water to maintain ecosystems and life are the same, be it in Japan or Bangladesh.



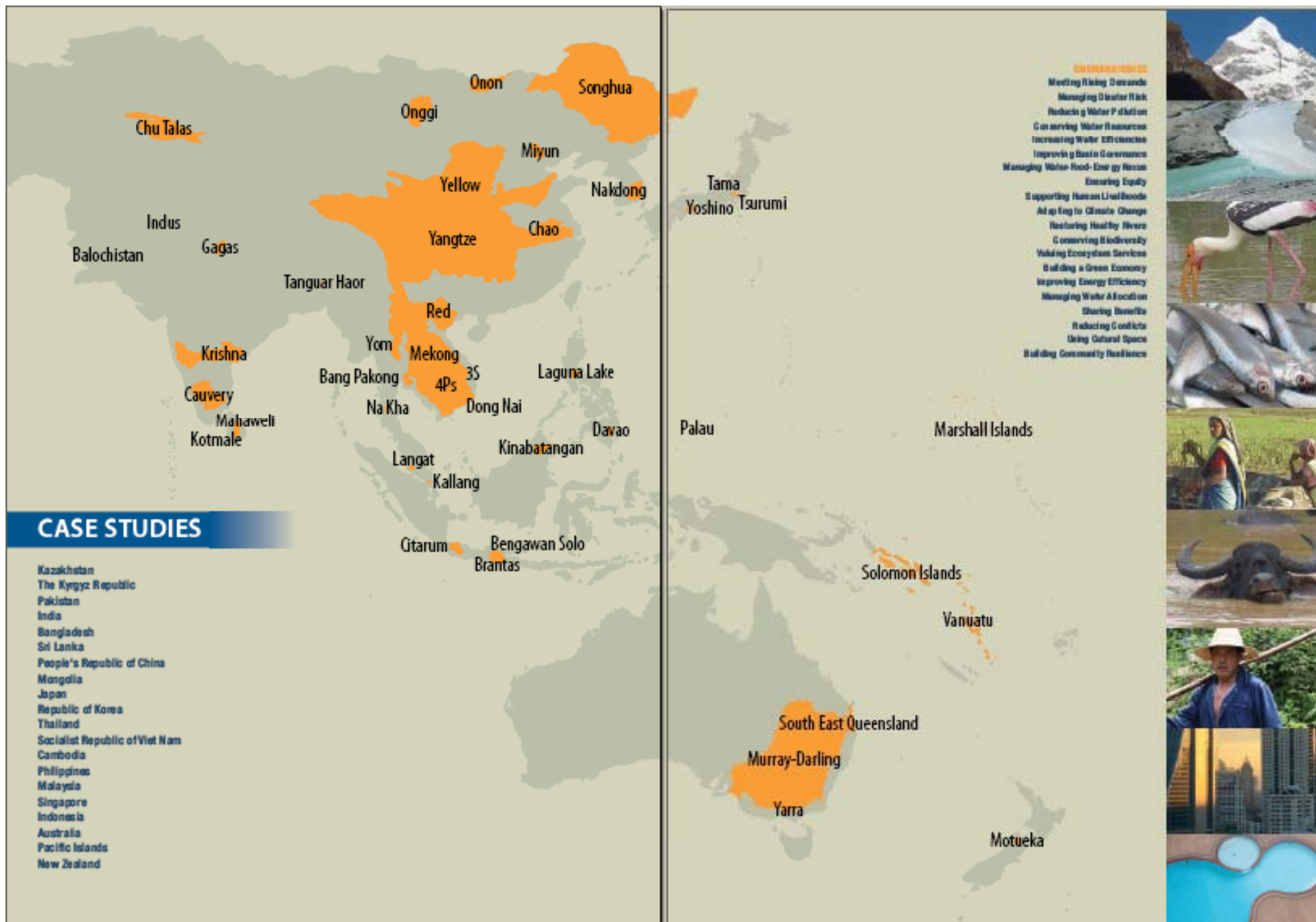
LEARNING FROM THE GROUND

BASIN (Area in km ²)	Major Productive Uses	Challenges	Responses
			
CENTRAL AND WEST ASIA Kazakhstan and the Kyrgyz Republic			
Chu-Talas River Basin (115,200)	Irrigation, mining, aquaculture, livestock, hydropower, and natural breeding habitat for fowl	<ul style="list-style-type: none"> ● Water allocation and distribution ● Joint management of the river basins ● Safe and reliable operation of water distribution facilities ● Maintenance of environmental flows 	<p>Bilateral Framework Agreement of 2000 between Kazakhstan and the Kyrgyz Republic for better cooperation.</p> <p>Establishment of the Chu-Talas Joint River Commission.</p> <p>Investment by downstream country (Kazakhstan) in operation and maintenance (O&M) of infrastructure in the upstream Kyrgyz Republic for mutual benefit.</p>

BASIN (Area in km ²)	Major Productive Uses	Challenges	Responses
			
EAST ASIA Mongolia			
Onggi River Basin (52,920)	Grazing, and mining	<ul style="list-style-type: none"> ● Major water contamination from mining ● Diversion and reduction of flows 	<p>The Onggi River Movement is a people's movement that lobbied the government to stop mining in the basin area. United Movement of Mongolian Rivers and Lakes has forced the government to pass a law that bans mining in headwaters of rivers, and protects the catchments of water reservoirs and forest regions.</p>

BASIN (Area in km ²)	Major Productive Uses	Challenges	Responses
 <p>Davao River Basin (1,800)</p>	 <p>Raw material for food, and medicine and cosmetics</p>	 <ul style="list-style-type: none"> ● Pollution in the river ● Inadequate flows ● Numerous local initiatives undertaken by different organisations without coordination 	 <p>Watershed Code was enacted in 2007 with the purpose of integrating fragmented schemes being implemented in the basin. Watershed Youth Management Council was formed; UNESCO-HELP Davao Network helped to resolve local conflicts.</p>









Shared water resources infrastructure promotes cooperation and economic development.





Pakistan's draft National Water Policy of 2006 emphasizes an integrated and comprehensive water management strategy.

The Indus river basin is a multi-layered transboundary basin shared internally between provinces and internationally with India.



The *karez* is a resilient system – it can withstand drought by abstracting from aquifers slowly.



INDIA

Gagas

Krishna

Cauvery



Partnerships between communities, the government, and civil society organizations can be effective in managing water resources



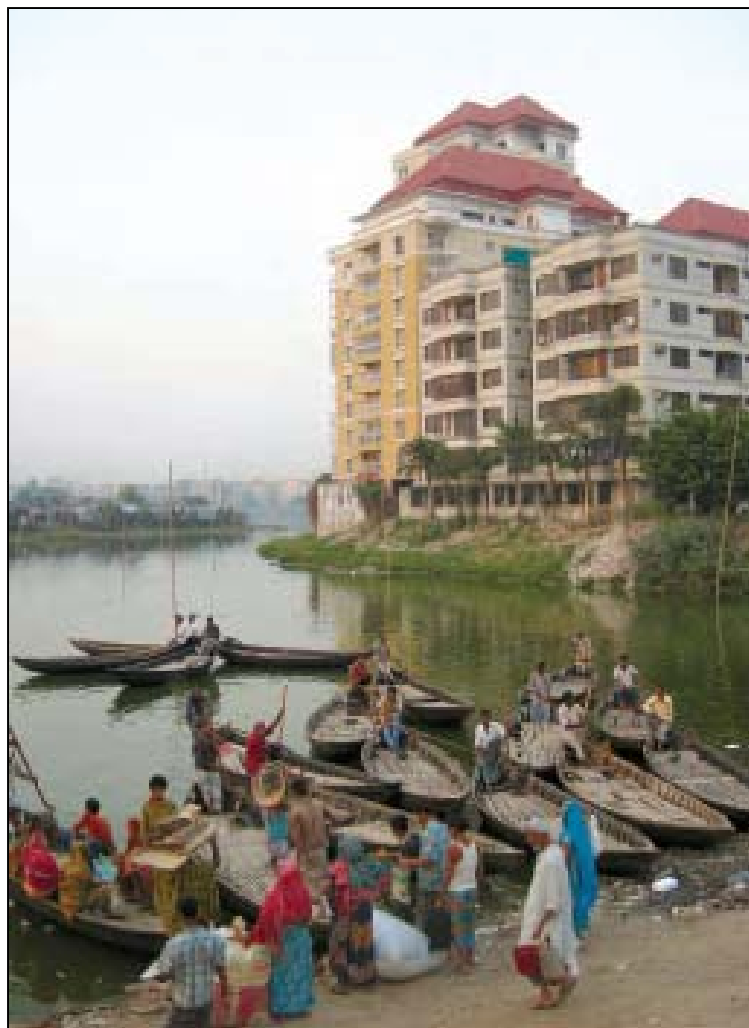
Farmers discuss crop water budget before a sowing season.



Farmer participation in water management can increase productivity.



Groundwater resources are used extensively for irrigation in Andhra Pradesh.

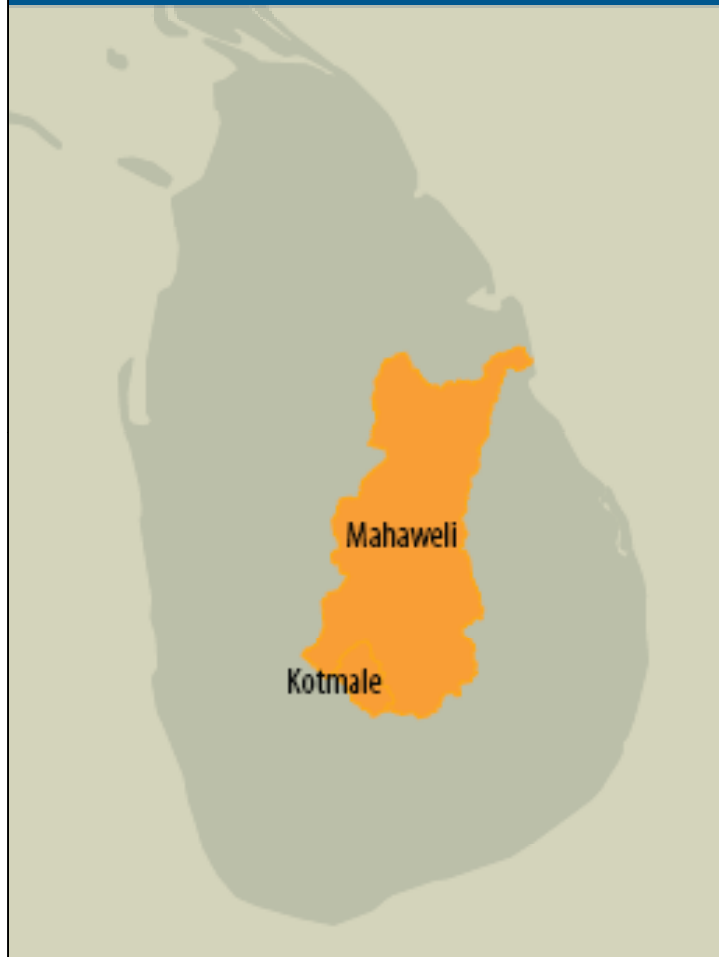


A wetland once leased to private parties now belongs to the community.

Traditional fishing rights are protected by engaging the community in the management of the wetland.



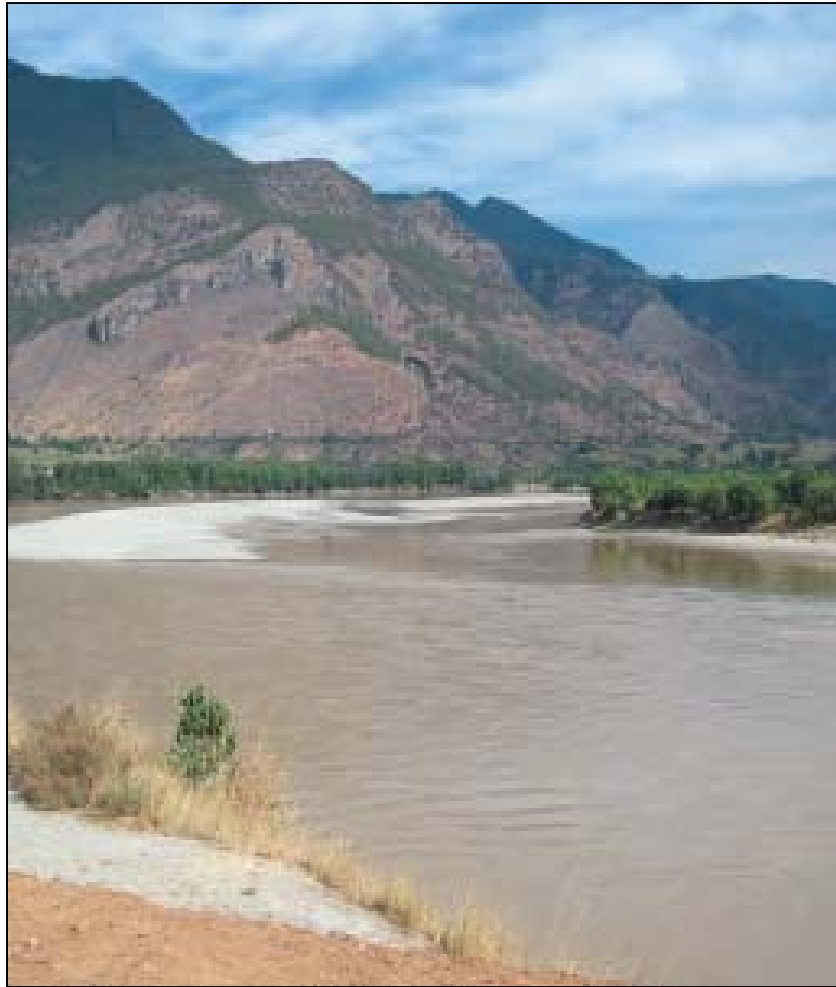
SRI LANKA



Consultation with stakeholders shapes and strengthens water management strategies in Sri Lanka



The Ceylon Electricity Board worked closely with community leaders to finalize and implement the Resettlement Action Plan.



The PRC's extensive water management framework extends vertically and horizontally from the central government to its townships and villages.



Apple industry in the Yellow River Basin

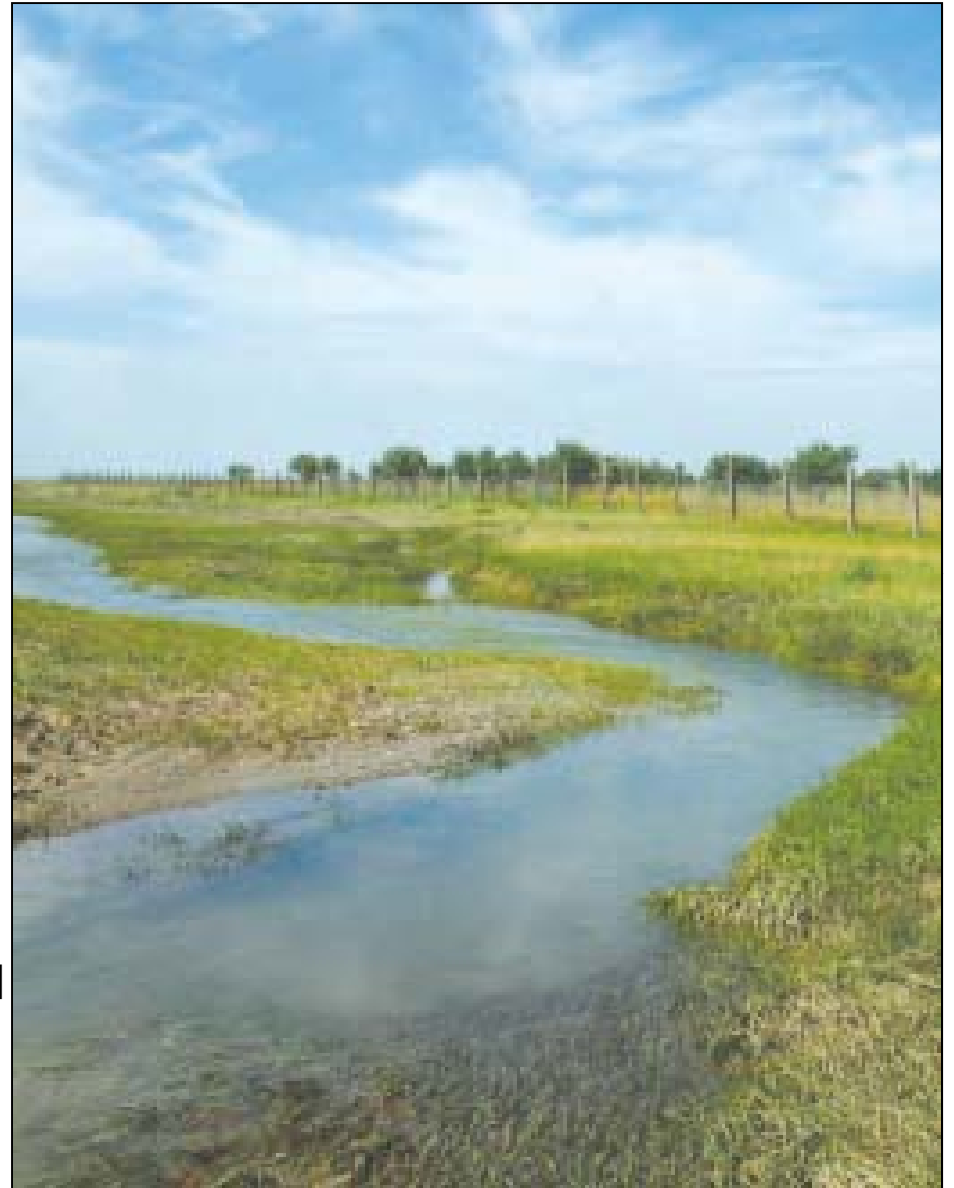


Jiamakou Irrigation Scheme helps to achieve higher water productivity in the Yellow River Basin.

Farmers have been major beneficiaries of the river basin management efforts in the PRC.



The United Movement of Mongolian Rivers and Lakes successfully lobbied for a ban on mining in the headwaters of rivers and the protection of reservoirs and forested areas.





Onon River Basin is rich in biodiversity and the Onon-Balj National Park was established in 2000 to conserve these resources.



The Onggi River Movement has demonstrated the need for active involvement of the people in restoring the basin ecosystem.



Revival of the ecosystem resulted in economic gains for the local people.



Japan's water policies have been revised and adapted over the past 60 years in response to changing needs.





The Tama River Basin was restored as a result of awareness raising campaigns which led the government to formulate the Environmental Management Plan.



Urban citizens are more informed of the need to restore Japan's river basins.



The Nissan Stadium, the largest sports stadium in Japan, was built on an elevated platform.

REPUBLIC OF KOREA



**Upgrading the Environment
Administration to ministry status has
ensured legal and administrative
support for tackling water pollution.**





Thailand's inclusive approach ensures effective and innovative basin management through stakeholder participation

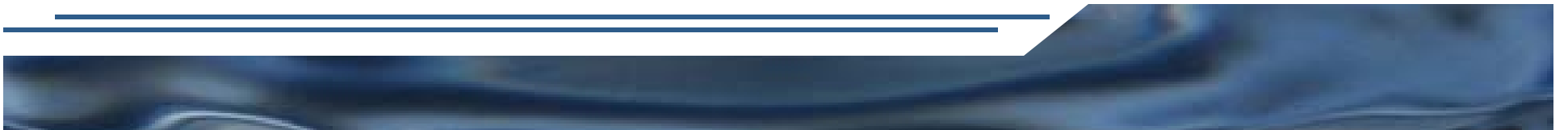




**The Bang Pakong River Basin
Committee was successful in resolving
water allocation issues.**



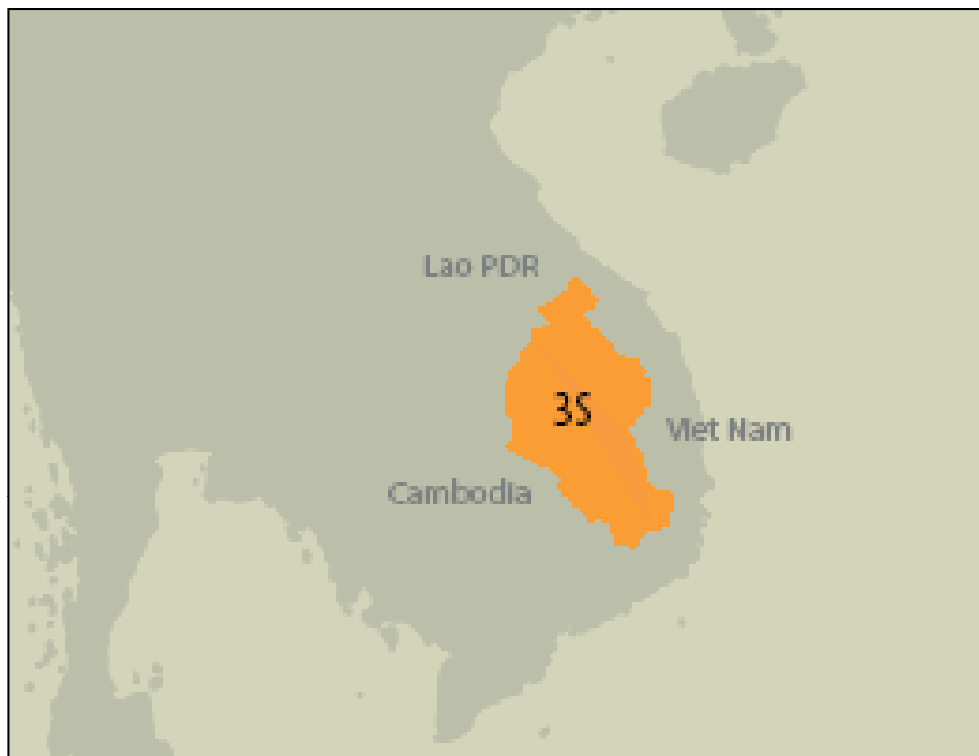
**Farmers harvesting rice
in eastern Thailand**





The water lily *Thainium crinium*, an economic resource for the local people is now recognized by the Government of Thailand as a rare and endangered flora.





3S RIVER BASIN

Three countries are engaging in national and cross-border dialogue to improve the management of a transboundary river basin.






The 3S basin is very rich in inland fisheries.



Policy and institutional changes in Viet Nam are responding to the need to modernize river basin management.

SOCIALIST REPUBLIC OF VIET NAM



VIET NAM HAS 13 large river systems, each covering over 10,000 km². Two-thirds of its population live within the three largest river basins — the Red Thai Binh, Mekong Delta and Dong Nai — which also contribute 70% of the country's GDP. About 40% of the country's energy needs are met by hydropower, half of which is generated in the Red Thai and Dong Nai basins (ADB 2009). Although on average Viet Nam has abundant water, pollution and over-exploitation for irrigation and hydropower generation are decreasing the quantity of water available for consumption and productive use. A rapidly increasing population is also putting pressure on water resources and the environment in these basins (Haith et al. 2008).

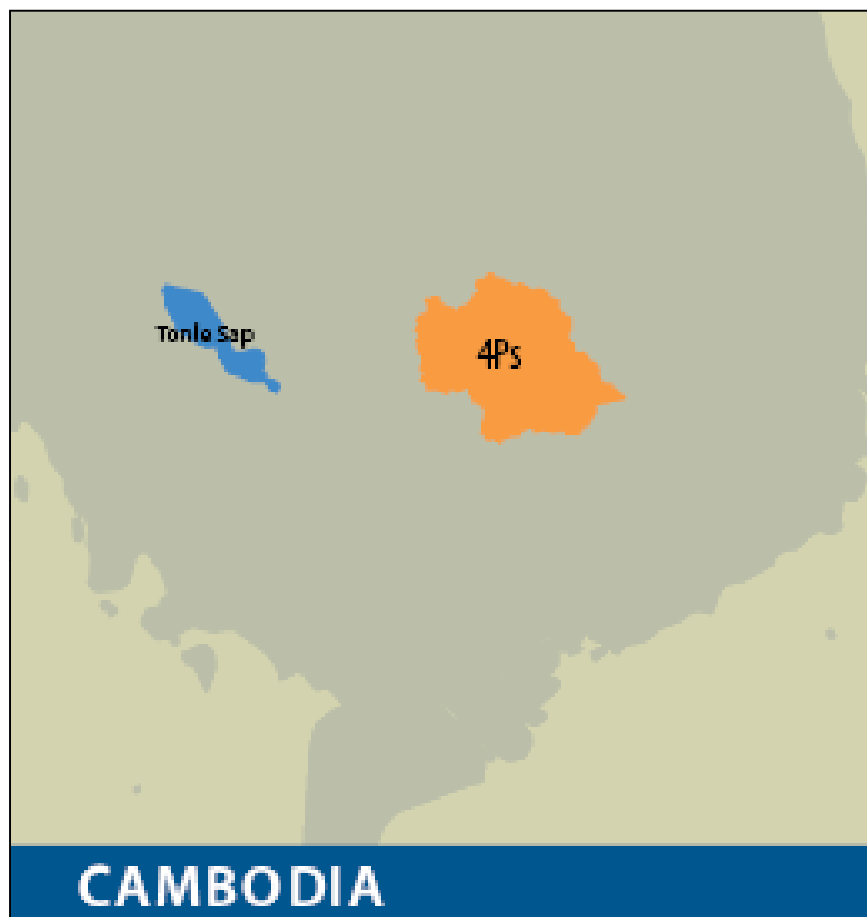
Water resources are national assets and are managed under State authority. Until recently, Viet Nam's government focused its water management efforts on preventing disasters, since the country is prone to typhoons and torrential rains in combination with strong winds, floods, landslides and mud flows. In 1998, Viet Nam formulated its first Law on Water Resources, and in 2002 it set up the Office of the National Water Resources Council and began creating RBOs for water resource planning in large rivers (Trang 2005). Later, the Ministry of Natural Resources and Environment was established with a view to modernizing basin management.

Red River Basin

The Red River Basin is a transboundary river basin spanning parts of the PRC, Lao PDR and Viet Nam. In Viet Nam, the basin covers 26 provinces including the capital city Ha Noi, with a combined population of about



An IWRM approach is helping to reduce pollution and protect water resources in the country.



Cambodia's Water Law supports strategic investments in developing water resources, and promotes transparent, accountable and participatory water management.

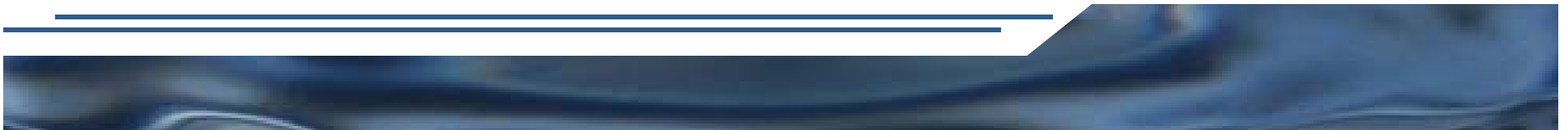




The 4Ps Project has raised awareness of river basin management concepts at the provincial level.



Keeping people in the centre of a water management strategy can help to alleviate poverty and protect the environment.





An intergovernmental organization provides a framework for managing a major transboundary river basin

MEKONG RIVER BASIN





The Mekong basin is the most culturally diverse region and one of the richest areas of biodiversity in the world.



PHILIPPINES



Specially appointed
authorities have been set
up in major river basins to
control water pollution



The Environmental User Fee System introduced by the Laguna Lake Development Authority has helped to curb the pollution in the lake, making it safer for the local population.



River basin management strategies in Malaysia are taking account of important habitats for endangered plant and animal species

MALAYSIA

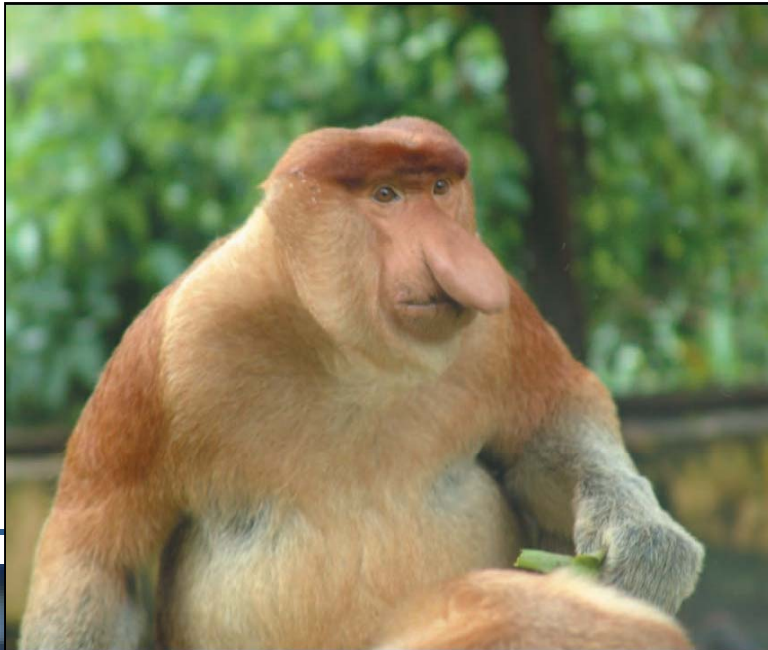




A river monitoring task force team patrolling Langat River



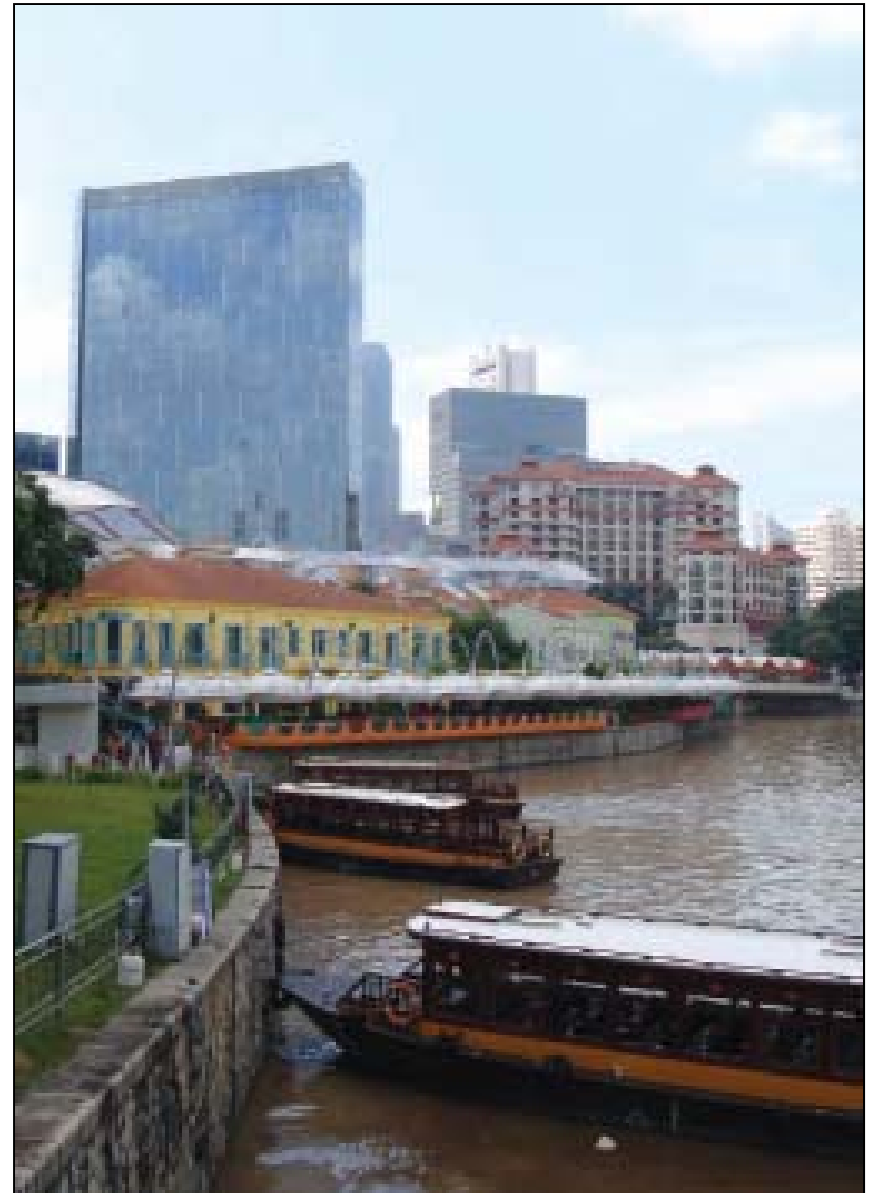
Communities living along the river have taken to rain water harvesting.

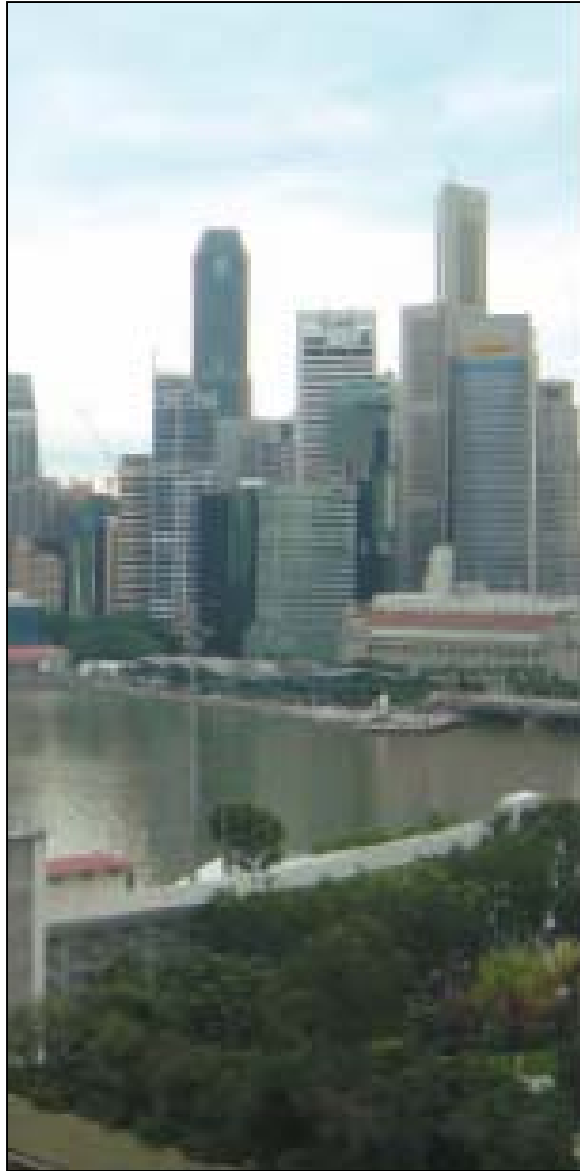


The Proboscis monkey in the Kinabatangan river basin



Singapore's success in managing its water efficiently is evident in the domestic reduction in water consumption.





Led by the Ministry of the Environment, the cleaning and beautification of the Singapore River and Kallang Basin was accomplished in 10 years with the help of government departments, grassroots and civic organizations, the business community and NGOs.



Indonesia's water law requires 50% community participation in all water management planning



Cleaning up activities are being undertaken in the Citarum river, lifeline of Indonesia's economic and social development.

Lahor reservoir in the Brantas basin



Bengawan Solo river basin is the largest on the island of Java.

AUSTRALIA



Australia's National Water Initiative increases water use efficiency for greater savings, productivity and environmental performance





The Ecosystem Health Monitoring Programme releases an Annual Report Card that assesses and rates the health of South East Queensland's waterways.

Public awareness about the Yarra River was heightened through a long-term media campaign titled "Give the Yarra a go."



One of the important components of the Murray-Darling Basin Plan is to divert 2,750 GL of water from irrigation and other water users to restore environmental flows.





In the face of freshwater scarcity and uncertainty over the impacts of climate change, the Pacific Islands are adopting innovative water management solutions.





**Harvested water from the runway at
Majuro airport.**



**Many Pacific islands are now
having water utilities to manage
their drinking water and
sanitation.**

NEW ZEALAND



New Zealand is optimizing the contribution of its water resources to its economic, social and cultural well-being



Community involvement helped to save the catchment area of the river.

To order **WATERWEALTH**, please contact:

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