



Australian aid: Approaches to managing water resources



WATER IS ESSENTIAL FOR HEALTH, FOOD PRODUCTION AND POVERTY REDUCTION, BUT IT IS A FINITE AND VULNERABLE RESOURCE. IT IS ESTIMATED THAT BY 2025, FOUR BILLION PEOPLE WILL BE LIVING IN CONDITIONS OF WATER STRESS.

THE FACTS

Increasing poor people's access to fresh water and sanitation facilities is fundamental to improving their health and increasing their capacity to participate in the economy. Yet global demand for freshwater is growing at unsustainable levels.

The poorest suffer most with over 1.1 billion lacking access to safe water. As a result 10,000 die each day from avoidable water-related diseases. By 2025, half of Asia's population will live in urban areas. This will further increase demand for urban water supply, sanitation and wastewater treatment facilities. In Pacific island countries, rapid population growth, urbanisation and the demands of industrial development are placing great strains on limited water resources.

The consumption of water that is unsafe due to the presence of water-borne diseases and pollutants is detrimental to health, productivity and learning capacity. An estimated 50 million people are exposed to arsenic levels in water that are five times higher than those recommended by the World Health Organization.

Measures such as damming and over-extraction disturb water flows and cause major problems to, for example, fisheries and crop production.

Such changes affect communities traditionally dependent on river, estuary and lake systems in many countries in the Asia-Pacific region.

AUSTRALIA'S APPROACH TO WATER RESOURCE MANAGEMENT

Australia has learned many lessons from managing its own water resources. Reforms being implemented in Australia, such as the right to use and trade water, and basin-wide environmental management, have the potential to be adapted and used in developing countries. Lessons on integrated catchment management, public participation and intergovernmental coordination are also relevant.

Decades of experience in providing water-related assistance through the Australian aid program in the Pacific and Asia indicate that, while activities must be tailored to individual country circumstances, there are common challenges. These include the need to:

- > ensure the poor have access to safe water
- > implement appropriate pricing policies
- > address environmental and use practices that result in poor water quality and availability
- > maintain existing infrastructure, and
- > encourage user groups to participate in developing and operating water services.

The aim of Australia's water-related assistance is to:

Help reduce poverty and raise living standards in developing countries through promoting the efficient, equitable and sustainable use of water resources.

Australia's assistance reflects the principle that water is subject to many economic and social demands. It builds on lessons learned from domestic and international experience and tailors assistance to individual country circumstances by focusing on:

- > water governance, and
- > delivery systems.

Examples of approaches adopted in AusAID-funded activities that have been successful or innovative in a country or regional context follow. These are preceded by lessons learned from international literature or AusAID's own experience in providing assistance for water resource management.

WATER GOVERNANCE

Better water planning will help generate long-term economic growth and poverty reduction. By improving institutions, stakeholder participation and policies, the sustainability of water resources will improve and help to ensure the benefits are shared with the poor.

Australia is supporting the Mekong River Commission, based in Vientiane, Laos, to better plan and manage the **Mekong River** – its water and related resources – in Laos, Thailand, Cambodia and Vietnam.

A long-term strategic partnership between the Mekong River Commission and the Murray Darling Basin Commission is being supported through the Australian aid program. The nature of this assistance is designed to allow the Mekong River Commission to set the agenda in terms of what kind of support it needs and when this is necessary.

The program of assistance has focused largely on integrated water resource management and helping Basin planners to understand the importance of focusing on the shared resources of the basin and using them as the basis for integration. Community participation is also built into all aspects of the support. Assistance has been provided to develop the Public Participation Action Plan and to pilot activities that demonstrate the benefits of managing natural resources when communities are fully involved.

Supporting a more equitable, efficient and sustainable allocation of water is critical for economic development and poverty reduction. In **Vietnam** a joint donor sectorwide approach to managing rural water supply and sanitation aims to improve overall management capacity and reorient the national rural water supply and sanitation strategy so that it is more



ABOVE: For Thach Ly San in Vietnam, clean health means better health and increased opportunities.

PHOTO: Will Salter

responsive in providing services the poor demand. This involves introducing affordable technologies and cost-recovery options to increase the sustainability of systems for rural water supply and sanitation.

The activity is also examining alternatives for cost recovery based on the principle that users should pay for the construction and operation of water supply and sanitation facilities. This principle will be adapted to reflect the fact that the poorest households are not in a position to pay and will need targeted support from the Government of Vietnam and the donor community.

Since 1998 Australia has supported a program in **Indonesia** that aims to identify and review lessons learned from initiatives of the Government of Indonesia and donor agencies to provide water supply and environmental sanitation. It aims to test new approaches and facilitate the adoption of a national framework for water supply and environmental sanitation that would improve the access of Indonesia's poor to water and sanitation services.

The primary achievement of the first phase of this program was to produce a national policy document in consultation with all levels of government, non-government organisations and other donors. This was a move away from a centrally driven approach that did not adequately take into account the needs of end users. The next phase of the program focuses on implementing the water supply and environmental sanitation policy at the district level under Indonesia's autonomy laws.

DELIVERY SYSTEMS

All developing countries face difficulties in developing and maintaining appropriate water infrastructure. Improving water and sanitation services requires more than money for wells, taps and toilets. Strong governance frameworks are also needed to ensure that water and sanitation systems are sustainably managed and operated.

AusAID's approach to improving access to water and sanitation is contingent on identifying and managing risks to the delivery system. Careful management requires information on the extent of problems affecting delivery systems and potential solutions. To this end, AusAID developed the *Safe water guide for the Australian aid program 2005*, which provides practical advice to staff, contractors, non-government organisations, development partners and other parties involved in water-related activities.

Comprehensive risk assessment and management approaches that ensure access to safe drinking water are critical to sustainable development. In the **Pacific**, AusAID is supporting the development of water safety plans. This activity is a collaboration between the South Pacific Applied Geoscience Commission and the World Health Organization, and aims to reduce the risk of water-related diseases in Pacific island countries by ensuring that each country has a safe water plan. It is expected that these plans will eventually become part of the respective governments' policies on resource management.

The sustainable operation and maintenance of water supply and sanitation infrastructure remains challenging. The **India – South Asia** water supply and environmental sanitation program aims to reduce, by 50 per cent, avoidable water-related diseases for up to 400,000 people across the cities of Gangtok and Shillong. The program acknowledges that improving the delivery of urban water supply and sanitation services is primarily about institution building and financial management. To this end, the program is working to increase the planning and implementation capacities of state-owned water authorities by, for example, improving governance arrangements and measures to recover costs through user tariffs and charges.

Analysis, proposed institutional reforms and sector improvement plans for water and sanitation undertaken through the program are now being used as the basis for further infrastructure investment in both Gangtok and Shillong by the national government and donor partners.

Increasing the capacities of institutions to plan for and mitigate the effects of natural disasters is an important part of effectively managing water resources.

Vam Nao Island in **Vietnam's Mekong Delta** is subject to severe seasonal flooding that causes loss of life and widespread damage to crops and infrastructure, and brings water-borne disease. The poorest among the islands 300,000 inhabitants are worst affected by these annual floods, which also inhibit the island's agricultural and economic potential.

Australia is supporting a plan to develop an integrated water management system that will reduce overall flood damage to Vam Nao by 95 per cent. The system will also provide significant benefits to around 53,000 families by extending their cropping season and allowing them to diversify and plant higher value crops. It is estimated that the

landless and poor will stand to benefit from an estimated 26 per cent increase in paid employment and from other flow-on effects of wider economic activity. Substantial consultation has taken place with members of the community as some people will need to be resettled as a result of construction activities in the project.

FURTHER INFORMATION AND RESOURCES

AUSTRALIA'S INTERNATIONAL WATER POLICY, SAFE WATER GUIDE AND ACTIVITIES

www.aid.gov.au/publications/pdf/everydrop.pdf (Making every drop count: water and Australian aid, 2003)

www.aid.gov.au/publications/pdf/safe_water_guide.pdf (Safe water guide for the Australian aid program 2005: a framework and guidance for managing water quality, 2005)

GENERAL RESOURCES ON WATER WITH LINKS TO POLICY AND PROJECT RESOURCES

www.developmentgateway.com.au

www.gangtokshillong.com (Gangtok–Shillong projects website)

INTERNATIONAL ORGANISATIONS

www.wsp.org (World Bank Water and Sanitation Program)

www.gwpforum.org (Global Water Partnership)



MORE INFORMATION ABOUT AUSTRALIAN AID

Further information about the Australian Government's overseas aid program is available online at www.aid.gov.au

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FRONT COVER IMAGE: A woman collects arsenic-free water from a rainwater tank provided under the South Asia Arsenic Mitigation Program, in the Manikganj District, Bangladesh. Rainwater harvesting is one method for securing safe drinking water. PHOTO: Simon Buckley

BACK COVER IMAGE: An Australian funded activity in Indonesia helped Department of Health staff to set up a water quality monitoring system to ensure safe supplies into the future. PHOTO: PT HarvestIndo

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