

A young child is shown in profile, filling a yellow plastic water jug from a public tap stand. The child is wearing a light-colored shirt. The background is slightly blurred, showing other people and the structure of the tap stand. The overall scene is set outdoors, likely in a public water supply area in a developing region.

## WATER, HEALTH & DEVELOPMENT

Reliable access to a household water supply and sanitation are central to well-being and economic development, yet they are out of reach for nearly 3 billion people. The costs of this service gap are immense. It is estimated that women devote more than 40 billion hours to fetching water and 1.8 million children die as a result of water- and sanitation-related illnesses every year. Finding solutions requires innovative approaches that account for the institutions, economics and infrastructure typically found in developing regions.

### WE ARE

An interdisciplinary program of the Stanford Woods Institute for the Environment that engages researchers in engineering, public health, medicine, economics and planning. We collaborate with research institutions, nongovernmental organizations and governments in Asia and Africa to conduct applied, field-based investigations. We develop and test innovative policies, programs and technologies that can advance economic development and improve public health, at scale and on a sustainable basis.

### WE REACH

- Faculty and students at Stanford and partner universities
- Collaborators in government, nongovernmental organizations, development agencies and the private sector
- Households and communities in low- and middle-income countries

### Mission

The Program on Water, Health and Development is working to improve the health and well-being of households while enhancing capacity for sustainable water and wastewater management in some of the world's poorest countries.

### Goals

We work with partners in low- and middle-income countries, primarily in Asia and Africa, to:

- Identify effective strategies for expanding access to and increasing the sustainability of water supply and sanitation services
- Strengthen the scientific basis for decision-making in the water and sanitation sector, particularly with reference to non-networked populations
- Enhance capacity within developing countries for sustainable water and wastewater management
- Provide unique training and learning opportunities for faculty and students at Stanford and partner universities





WHD researchers address issues ranging from water quality and quantity to resource recovery for energy and food production. The program's four focal areas are:

## **Expanding Access**

We are researching the effectiveness of several strategies designed to expand access to water and sanitation services. These strategies include the development and testing of low-cost technologies; policies that encourage small-scale, private service providers; and the provision of earmarked micro-financing for household water and sanitation investments.

## **Sustainable Service Models**

Designing interventions – whether infrastructure investments, information campaigns or institutional innovations – whose benefits are sustained over the long term is a major challenge. We are exploring different ways of operationalizing sustainability and identifying the conditions under which particular interventions are more likely or less likely to realize sustainability goals.

## **Water, Sanitation and Health**

WHD researchers are employing both experimental and nonexperimental approaches to evaluate the health impacts of improvements in water supply and sanitation services, as well as in hygiene behaviors.

## **Water, Sanitation and Hygiene (WASH) and Development**

We are exploring the impacts of productive use of domestic water supplies and household waste on both livelihoods and infrastructure sustainability. We are also identifying and testing entrepreneurial opportunities for delivering decentralized water and sanitation services.

### **For more information:**

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