



Possible stories based on WWDR4

Water for All Programme in Peru.

A mechanism for expanding the coverage of water supply and sanitation service but also a cost based approach to the alleviation of extreme poverty. Once connected to the network, families living in extreme poverty, who previously bought water in drums, more than tripled their water consumption. However, their monthly spending on water decreased. The programme also helped reduce gastrointestinal diseases caused by a lack of basic services and by inadequate services.

Examples of international water agreement

The Indus Water Treaty, signed between Pakistan and India in 1960, has survived three major conflicts and remains intact today.

The Nile Basin Initiative's Socio-Economic and benefits Sharing Project (2010) builds a network of professionals, experts, from public and private sectors, academics, sociologists... from across the basin to explore alternative Nile development scenarios and benefit-sharing schemes.

The Mekong River Basin illustrates the complex relations between states and rivalry among water institutions. Transboundary water conflicts have generally been contained in this basin but the growth of water scarcity due to environmental and developmental factors could lead to major conflicts in the future. In 2000, the Mekong Delta faced its worst floods in 40 years. About 800 people died, 9 million were affected. Since then, a range of initiatives have been implemented under the Flood Mitigation and Management Programme. These include flood forecasting capacities, best practice guidelines for integrated flood risk management...

Canada and the US have been leaders in the bilateral management of shared waters, through the International Joint Commission. As a result, the status of many water courses in the regions has been considerably improved and there are far fewer disputes over shared waters. Addressing transboundary groundwater issues remains an exception.

The Guarani aquifer is shared by Argentina, Brazil, Paraguay and Uruguay. In August 2010, the presidents of the four countries signed an agreement for cooperation on extending knowledge of the aquifer and on identifying critical areas. The four countries have committed themselves to promote

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the conservation and environmental protection of the Guarani Aquifer System to ensure equitable use of its water resources.

Water conflicts

Many recent changes in the governance of water and river basin have occurred as an outcome of conflict. In Australia, longstanding conflicts between environmentalists and farmers in the Murray-Darling from the historical backdrop to the Landcare movement and to multi-stakeholder for m

anaging water in its basin context. Conflicting visions of catchment management have shaped institutional approaches in New South Wales.

Water competition has led to increased water conflicts in China, particularly over the past two decades. Conflicts within countries have dominated since 1990, with more than 120 000 water-related disputes in China alone during this period. Direct conflict most commonly arises at the local level and is often based on the construction of a dam, ambiguous water withdrawal rights or deteriorating water quality.

The Copiapo Valley in Northern Chile is an example of the conflicts that can arise from large-scale investments to serve global markets in areas where water is scarce. The region is the site of an increasing number of copper and other mines. The region is the site of an increasing number of copper and other mines but also produces large volumes of crops, particularly table grapes. The valley's surface waters have long been committed and here is increasing competition for groundwater among the fruit farmers.

Sana'a and Taiz in Yemen suffer from acute water scarcity. Some researchers believe that between 70% and 80% of the country's rural conflicts are about water. The situation is affected by a growing population, poor water management, illegal well drilling and influx of Somali refugees to Yemen. Exacerbating the conflict is the fact that Yemen is one of the world's most water-scarce countries. With their current usage rates, experts predict Sana's wells will run dry by 2015.

Conflict avoidance can also be a driver for innovation in water governance. In Southeast Asia, the specter of resource-based conflict between the countries sharing the Mekong River has been a strong driver for cooperation through the Mekong River Commission.

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Examples of measures taken to improve water management

Wastewater treatment infrastructure in the Republic of Moldova. By 2010, only 24% of wastewater were still operating and only 4% of these were adhering to legal requirements for the disposal of wastewater. In rural areas, 70% of homes were not connected to the sewerage system. EU and others funds began supporting an enormous assistance programme to rehabilitate municipal infrastructure and improve rural sanitation.

In Ankara and Istanbul there have been problems supplying sufficient water in dry years. As a result, water has been rationed. A number of remedial actions are being taken, from water saving campaigns to water transfers.

During the 2008 drought, Barcelona turned off civic fountains and beachside showers and banned hosepipes and filling swimming pools. In the same years, Cyprus applied emergency measures that included cutting water supply by 30%.

Singapore reduced its urban domestic water demands from 176 L per capita a day in 1994, to 157 L per capita a day in 2007.

Leak detection programmes in Bangkok and Manila have lowered estimated unaccounted-for water, allowing new infrastructure development to be postponed. Since 2008, Sydney Water in Australia has offered a dual reticulation service where houses in the Hoxton Park area are given two water supplies—one for drinking water and the other a recycled supply for general use.

Glacier retreat affects the water supply of an estimated 30 million people in the region. Some 60% of Quito's (Ecuador) and 30% of La Paz (Bolivia) water comes from glaciers. Glaciers in Peru have lost 7 billion m³ of water. The number of people living in already water-stressed watersheds in the absence of climate change is estimated at 22 million. The IPCC expects that with climate change, this number will increase to between 12 and 81 million in the 2020s and to between 79 and 178 million in the 2050s.

Non-conventional water sources

The reuse of treated wastewater currently accounts for about 15% to 35% of total water resources produced from non-conventional sources in Egypt, Iraq, Saudi Arabia, the Syrian Arab Republic and the UAE. Rainwater harvesting has expanded in the Arab region, Jordan, Morocco, Saudi Arabia and the UAE are advancing nuclear desalination prospects.

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Small household-level desalination units being used by about 100 000 households in the Gaza Strip as a secondary drinking water source, although health problems arose when the filters were overused.

Advanced remote sensing techniques have facilitated the identification of underwater springs in the region, although this approach could cause territorial disputes over shared sea and submarine resources.

Land acquisitions

Saudi Arabia announced it would cut cereal production by 12% a year to reduce the unsustainable use of groundwater. It now leases large tracts of lands in Africa for agricultural production. Saudi investors have already leased land in Sudan, Egypt, Ethiopia and Kenya. India is growing maize, sugarcane, lentils, and rice in Ethiopia, Kenya, Madagascar, Senegal and Mozambique to feed its domestic market, while European firms are seeking 3,9 million ha of African land to meet their 10% biofuel target by 2015. This demonstrates how policies enacted in one region have an impact on others.

As there is currently no regulating or monitoring mechanism for these deals, the acreage of transnational land acquisitions is subject to great variability ranging from 15-20 million ha in 2009 to more than 70 million in 2012 Land Matrix Project data. Africa consistently appears to be the prime target for these deals, with sub-Saharan Africa accounting for two-thirds of their acreage.

Water is never explicitly mentioned in the disclosed land deals.

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