

## Worlds of Water

### **Fluid Bonds: Views on Gender and Water**

edited by *Kuntala Lahiri-Dutt*;  
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The book *Fluid Bonds: Views on Gender and Water* differs from many other books on gender and development in several ways. First, it combines case studies from the south and the north. Chapters are located in North and South America, south and south-east Asia, South Africa and Australia. The authors also look at gender and water in different subsectors: irrigated agriculture, fisheries, domestic water supply and sanitation, large dams, animal husbandry, aquaculture and integrated water resources management (the latter three in connection with overall water use and not as subsectors by themselves). Health aspects meet with productive uses of water and time, and globalisation with traditional story telling.

The book also cuts through professional boundaries. Some chapters are sociological case studies ranging from household backyards and single communities to whole regions. Others look at notions and changes from a historical or anthropological perspective. Yet others deal with policies and legal aspects and how women relate to them. Because of these many angles it is a rich book for researchers and development practitioners, educators and historians, administrators and activists.

Not surprising, but still enlightening are the many instances – in law, industries, institutions – that gender blindness has rendered women invisible and their roles and achievements thereby go unnoticed. Yet the book also presents women and women's organisations that could make a difference. Stella Mendoza, the first female member of the Board of Directors of the Imperial Valley Irrigation District in California negotiated a deal in which

freshwater features as a commodity as well as a nature resource. Such recognition is not yet present in Tasmania where water development rather than management, and efficiency rather than care dominate policy and legal arrangements. In their chapter on Andean water rights, Zwarteveen and Boelens show that neither the Andean culture nor a feminist view can fully explain the actual practices in water right exclusion. A gender policy is called for which deals explicitly with equality of access and control.

Knowing and understanding water uses of indigenous populations is as important in Australia as it is in Latin America. Story telling gives much insight, but risks becoming extractive instead of being a mutual interrogation process and a means to understand other ontologies. The chapter on irrigation in Nepal distinguishes between categorical rights, which by law gives women some access to land and water and concretised rights, which are their operational form. A complex system of allocation, distribution and appropriation determines water access. Processes of change from population growth, socio-political forces and geomorphic changes lead to, e.g. floods. Women are irrigators and have some rights, but such rights depend also on marital and socio-economic status and on caste. Men dominate in major decisions at the scheme level. Whether women's needs are met in irrigation schemes in rural India is still the whim of engineers. As in the Andean case there is no gender strategy. Moreover, all Participatory Rural Appraisals (PRA) exercises served to extract information, and not to take action.

New water developments have meant the loss of traditional gendered knowledge on location and protection of water sources. Diana Jones shows how the thorough knowledge of and adjustment to ecological conditions by aboriginal families has been lost in the modernisation process. In the Australian fish industry discrimination is based on sex, ethnicity and class. Women came into this sector as wives, or fish for livelihood, but in neither case do they have

any decision making power. Some of them have now united in the Women's Industry Network Seafood Community (WINSOC) to improve their position.

### **Modes of Participation**

Sex, class and caste differences are also at work in determining drinking water supply and sanitation in Nepal. Using a quantified methodology of PRA, a gender and poverty strategy was developed and its impact measured in four villages, then scaled up to 10 communities. By 2004 there followed its full application in 50 communities per year. The strategy led to significantly better social inclusion and performance, but the elite still gets away with not paying the poor who do construction work on behalf of the whole community.

The traditional division of women's and men's work is visible in the Australian backyards. Water was both produced (rainwater harvesting) and consumed, and served many purposes. The change in washing and indoor toilets made the backyards a male domain, until leisure uses have taken over and functional uses have become segregated and hidden from view.

Australian agriculture resembles the fishing industry in that both are considered male enterprises, and are not seen as the family systems which they are. Droughts, lower commodity prices and policy restrictions on water allocation have brought more coping work for women, but not a greater share in making decisions. In consequence, women either move out or negotiate from an inferior position. Both strategies cause much tension. There is also an increasing reluctance to marry farmers, and mothers counsel children to go for work outside agriculture.

Heather Goodall tells how indigenous Australian rural women have dealt and still deal with riverwater. The river provided many basic needs and played a role in the families' social lives. Riverside schools inculcated hygiene education and provided an antidote to threats of child removal by the school inspection service. More recently, women's roles were recognised in a campaign for a filtered water supply.

Annie Bolitho's chapter describes how an Australian art project of writing about water can bring together interested citizens and the water industry. Her approach to water conversations brought new interests in water to the forefront, which may contribute to new ways of water conservation.

Water excess and water scarcity exist side by side in the Mekong Delta in Vietnam. While women gained equal status in legal landownership after their share in the Vietnam war, the patriarchal relations and conservative values of Confucianism still dominate. Fiona Miller's chapter shows how these relations influence farmers' lives in many ways. She presents many situations where a pro-women and pro-poor approach would bring greater and more equitable socio-economic benefits, if women's water knowledge and their coping with environmental risks become more central.

### **Household Decision-making**

Also on Vietnam, Barbara Earth and Tran Tuan Anh present a case study on domestic water supply and sanitation. In

spite of community participation, gender divisions have reinforced gender biases. Health education went mainly to women, training on operation and maintenance to men. The service was registered in the men's name, although women had also contributed to its establishment and made the payments. Technology choices made by the World Bank have replaced local knowledge and management of freshwater, whereby freshwater was captured as part of the tidal action.

Bhawana Upadhyay proves that the recognition and strengthening of gender-based roles in water use can substantially improve family income from multiple water use. Vegetable gardens with drip irrigation and animal dairying gave poor women income and an improved status in the family and the community, where they dared socialise with other groups, including those from higher castes. Acknowledgement of productive water uses and management and supplementation of water projects with other inputs such as credit, markets and institutional support can greatly enhance the project benefits for poor women and men.

An important subject, willingness to pay for water has been the subject of a large survey (78,000 rural households) in India. The chapter on the results gives the associations, but not the reasons why in many cases, women are less willing to pay for water than men. This is particularly intriguing for findings such as the fact that male heads of households are more willing to pay than female ones when the environment is bad. The study does not provide insights in who in the household actually decides on such payments in the home and who makes them.

The resilience of household coping strategies is strikingly evident in the case study of women irrigation farmers and decision-makers among the Pedi in South Africa. Women cropping systems became more important as men shifted from livestock to migrant labour. The new National Water Act makes it possible that water rights and membership of Water Users Associations are vested in the actual water users. Revitalisation is now planned to reduce the negative impact that could follow from sudden support withdrawal.

Anni Bolitho reports on a community writing project that brought consumers and producers of water together in New South Wales, Australia. This led to new insights in water supply, water demand management and new symbolisms for water as a source of creativeness. Old symbolism comes from West Bengal, where rivers stand for female lives. Flooding was part of riverine lives to which people adjusted themselves. The colonial attitude has been to control rivers.

Bangladesh has an estimated 10 million tubewells. Many are contaminated by arsenic, which is also entering the foodchain

causing serious health and social problems. Poor women bear the brunt as they lose income-generating activities and have to give free labour in exchange for access to arsenic-free wells owned by higher castes and/or more wealthy households. The crisis can nevertheless become an opportunity by providing equitable access to arsenic-free water, water-related production and project planning and implementation. Ultimately the crisis is a test for democratic, effective and non-discriminatory local government. **EPW**

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