

# Case study 3



## Productive use of 'domestic' water supplies, South Africa



Livestock are important water users



Diverting water from a communal tap for vegetables

- ◆ Bushbuckridge in South Africa is a deprived region with very high population densities for a so-called 'rural' area. Access to rural water supplies, mainly from 'domestic' systems but also some community gardens, provides important opportunities to engage in a wide range of small-scale activities and enterprises for food and income. 'These include keeping livestock, backyard irrigation of vegetables and trees, brick-making and construction, brewing beer and making ice – all activities that are not normally considered when rural water supplies are provided for mainly agricultural or domestic purposes.
- ◆ Some of the important activities are non-agricultural in focus. Others, in an area where cash is more likely to be earned from remittances or pensions, provide additional food sources: mainly nutritious vegetables and fruits.
- ◆ Research has shown that households use more water and earn more income from these activities in areas with better water supplies. An AWARD study showed high-levels of water use for economic activities in villages, with both poor and good water supplies, ranging from 23 litres per capita per day (lpcd) to 40 lpcd above the amount used for basic needs (21-22 lpcd). Economic returns were relatively high, ranging from 0.01-0.02 R/l for vegetable gardens and fruit trees (the most common use of 'extra' water) to 1.2-1.6 R/l for beer brewing and ice block making (1R=US\$0.06).
- ◆ Generally all wealth groups are involved in most activities, for example construction and building. But better-off households utilise more water for dipping and watering animals, because they own large herds of livestock. And ice block making requires investment in refrigerators, electricity, cooler bags and ice bags that is difficult for poorer families. Beer brewing is the exclusive domain of the poor. It generates a steady income, with minimal investments and has a lot of customers, yet it is looked down upon by those who have alternative opportunities of bettering their lives.
- ◆ Women are involved in fetching water for almost all productive activities. Women are engaged in productive activities that are related to traditional women's work, such as beer brewing and making ice blocks.
- ◆ More integrated approaches to meeting the needs of poor people are now being piloted in research as part of the Water, Households and Rural Livelihoods (WHiRL) project. These uses are not clearly recognized in South African government policy to date. Productive uses of 'domestic' water supplies is a largely invisible sector. However, given the poverty focus of the government and the rapid pace of change in developing improved policies, it is hoped that the need for multi-purpose water supplies that encourage small-scale enterprise and local food production will soon be explicitly recognized in new policies.
- ◆ There are often other constraints, other than an adequate and reliable water supply, that make it rather difficult for people to use water for productive activities, with money (assuming that there is a good water supply) being the major constraint. Access to affordable credit is important to make the best of opportunities provided by better water supplies.

### WHiRL project

These and other reports can be downloaded from the WHiRL project website



<http://www.nri.org/whirl>

Mokgope, K., & Butterworth, J.A. 2001. Rural water supply and productive uses: a rapid survey in the Sand River Catchment. WHiRL Project Working Paper 4. NRI, Chatham Maritime.  
Perez de Mendiguren, J.C., & Mabelane, M. 2001. Economics of productive uses for domestic water in rural areas: a case study from Bushbuckridge, South Africa. AWARD Research Report, Acornhoek, South Africa.

Also see:

Moriarty, P. 2001. WATSAN and rural livelihoods approaches. Proceedings of the 27th WEDC Conference, People and systems for water, sanitation and health, Lusaka, Zambia, 20-24 August 2001.

#### WHiRL project collaborators

- Association for Water and Rural Development (AWARD), South Africa
- Accion Fraternal, India
- BAIF Development Research Foundation, India
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- Water Resources Management Ltd
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A busy communal water point

### Sources of information and further details

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