

Editorial

I WRITE THIS EDITORIAL from Sudan, where I have come to participate in discussions about extending access to groundwater, especially through increasing cost-effectiveness of drilling and by further opening up opportunities for manual well drilling. As I write, about 150 water sector professionals are converging on Khartoum to consider the day-to-day details and the wider implications of groundwater development – a component of the water sector which has been championed especially by UNICEF, the Water and Sanitation Programme, the Rural Water Supply Network, and a wide range of other private sector and NGO players.

The subject of the meeting in Khartoum is relevant to many aspects of this theme issue of *Waterlines*, on so-called multiple use systems or MUS. The fundamental idea of multiple use systems states the blindingly obvious – at least what is obvious to water users, if not to some water sector professionals. People use water for many purposes, some of which sustain life and health (but have no direct economic benefit), others of which are productive in the sense of offering the opportunity of a cash income. The River Nile which flows through Khartoum is used for all the many purposes which rural and urban populations require – domestic consumption and cattle watering, brick-making and irrigated farming, bathing and laundry, vehicle washing and industry, and countless others.

What is somewhat less obvious is that the water sector professions have been part of a problem rather than part of a solution. By compartmentalizing the water sector, we sometimes undermine our own work. For example, by constructing ‘domestic’ water supply boreholes and ignoring the needs of livestock, we fail to address a real need. A few years ago in northern Uganda I saw this very clearly in some IDP camps where men and cattle were competing with women for handpump water, to the detriment of safe and secure water supplies for both people and livestock. Handpump aprons were destroyed, the areas around wells were reduced to muddy pools, and the women reported that their drinking water tasted of cattle urine.

In other cases irrigation schemes are constructed with no intention of delivering domestic water, but domestic water abstractions from irrigation canals have no noticeable effect as the quantities of water involved are very small.

Development organizations which have worked with small private sector organizations (manual well-drilling companies, well-diggers, pump-makers) have known for a long time that a market can be created for water supply goods and services, if part of the water use leads

Richard Carter (richardcarter@wateraid.org) is Head of Technical Support at WaterAid, UK

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to a cash income. The combination of productive and consumptive water uses via a local enterprise approach has been shown to be a winning formula in many countries.

So (a) multiple use is a reality; (b) multiple use is not usually the way water sector professionals organize themselves; (c) a lack of recognition of multiple use can lead to subsequent problems because designs fail to fit user requirements; and (d) on the other hand there can be strong synergies between people's needs for domestic water and their possibilities of paying for it as a result of income from productive use of water. The challenge remains: how to do multiple use water development, and how to do it in a sustainable manner.

Monique Mikhail's paper in this edition describes part of a programme, in Nepal, in which domestic, livestock and crop irrigation needs were addressed in an integrated way. More results from the wider programme are also described in van Koppen and Smits' article. It is clear that numerous benefits were enjoyed by those who obtained access to the programme, but benefits to the poorest members of communities were not always achieved, and the emphasis on productive water uses to some extent left out issues such as sanitation, hygiene and water quality.

Stef Smits and colleagues describe a set of case studies from Honduras in which the multiple use message – that people and communities use water for multiple purposes, but in different ways – comes over loud and clear. An interesting aspect of this paper is the link between multiple use and sustainability. It is concluded that multiple use of water is not usually in itself the direct cause of non-sustainability, but it can pose a risk to sustainability. However, the authors conclude that relatively simple adjustments to design and management can address the problems identified.

The last paper, by Maarten Fontein and colleagues, describes an investigation of a multiple use approach undertaken in Bangladesh. The project addressed domestic and crop irrigation needs in an integrated manner (at least from a 'hardware' point of view), and water users generally reported increased productivity and incomes, together with easier access to domestic water. However, the analysis suggested that the water supply systems are not affordable to users, even over a ten-year time frame. For this and other reasons, the sustainability of the approach taken has to be questioned.

Multiple use is a reality on the ground, and as in other aspects of our work, water sector professionals will have to learn to better address the needs and demands of users. There is a long way to go in terms of institutionalizing the multiple use approach and addressing multiple water needs at scale. MUS as an area of research and practical endeavour is here to stay.

Richard Carter