Editorial

Waterlines is primarily concerned with the practicalities of delivering domestic water supply and sanitation services to households and communities, and bringing about changes in hygiene behaviours. This edition puts the spotlight on a different set of questions, however, which are fundamental to the delivery of services to people. This is the matter of integrated water resources management. Water is used for a far wider range of purposes than those which exist within the home. Water supply services can only be sustained if water and land resources are understood and managed well. Many institutions, from those at community level, all the way through to those involved in international (trans-boundary) water management, have a role in the care of water resources. Each has their areas of competence, and all levels need each other to play their part responsibly. Integrated water resources management has for too long been seen as a broad set of principles. The translation of those principles into operational practice has been less well documented. This issue of *Waterlines* attempts to do just that – provide some pointers, through real cases, to the practical implementation of integrated water resources management.

The recognition of the multiple uses of water – domestic and productive, for use in the home as well as for use in livelihoods – immediately raises the question of whether the right to water should extend beyond strictly domestic uses to these wider livelihood-supporting functions. Melvin Woodhouse and Malcolm Langford argue about the ethical, legal and practical implications of this in our Crossfire debate.

The science of water resources is very clear about the fact that water resources and land management are intimately linked. Some have suggested (for instance in last June's International Conference on Groundwater and Climate in Kampala) that we should refer to Integrated Land and Water Resources Management – ILWRM, not simply IWRM. Land use, land cover and land management fundamentally affect water resources. Conservation and management of vegetation and soil is usually good for the conservation of water resources, so the management of pastures and forests for food and livelihoods also benefits the supply of water. Bill Fleming and Jeanie-Puleston Fleming show the long-term success of this type of integrated activity in a watershed in Nepal later in this issue.

To manage land and water resources effectively, institutions at many levels need to be involved. The principle of subsidiarity applies – namely that higher-level authorities should have a subsidiary function, performing only those tasks which cannot be performed effectively at a more immediate or local level. This is an important principle – that 'higher' level institutions should really be the servants of those operating at a 'lower' level. A radical principle, with ancient roots, but one which is rarely practised. Joe Gomme and Chris Leake describe a

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flagship community-managed water supply scheme in Ethiopia. They point out the weaknesses in system-level monitoring which have now led to a fundamental difficulty in diagnosing performance problems. The reality is that some tasks and functions can only be carried out at certain levels of the organizational hierarchy. Those which can be *competently* carried out locally should be, while those which require higher-level oversight or authority must be delegated upwards.

The promotion of a real sense of institutional ownership and participation in the tasks of ILWRM is well described in Kidanemariam Jembere's article from a catchment in Tigray, northern Ethiopia. The catchment has been characterized by water shortage, competition, and conflict, as well as land degradation under population pressure. The project described by Kidanemariam has established the Tigray Regional Water Partnership, an institution which brings together all those with an interest in managing water resources for the benefit of the populations living in the catchment. Among other things, this effective partnership arrangement can start to generate data and knowledge about the potentials and limits of water resource development in the area. In another article from the arid Horn of Africa, Melvin Woodhouse and Abdi Hassan Muse, writing about creating a water policy for Puntland in Somalia, emphasize that consulting with stakeholders creates more ownership of the policy and a greater likelihood of it being used effectively.

IWRM has long been recognized as an important set of principles, but its implementation in practice has lagged behind its philosophical basis. In other fields, however, different approaches may provide the practical implementation strategies which can operationalize IWRM. St John Day, in his article on community-based water resource management in Darfur, gives an interesting example of this – linking local-level IWRM principles to the operational framework set out in water safety plans, and showing how a set of principles allied to a practical instrument can lead to some real change on the ground.

Land and water resources management must be integrated in many ways, and this probably represents its biggest challenge. ILWRM must recognize multiple uses of water, which fall within a range of different professional disciplines. It must operate across different institutions, from those at 'community' or local level, to those at watershed, regional, national or international level. It must recognize the importance of a wide range of functions, from data collection and monitoring, to community mobilization, to making and enforcing workable legislation. It must integrate matters of land management and water supply. This complexity must not be an excuse for inaction, or for poor performance. Without competent integrated land and water resources management, tailored to the local social, institutional, and environmental context, water supply for both lives and livelihoods will come under increasing future stress.

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