

Tuesday, 21 March 2006

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Water Forum



### ■ Empowered Water users associations will improve the crop per drop

The involvement of the farmers in the development, operation and maintenance of irrigation projects is essential for the efficiency and long-term sustainability of irrigation systems. It is essential to listen to the special voice of farmers and recognize the cultural added-value of agriculture. Farmers need more responsibilities and financial powers. The transfer of responsibilities from government to farmers' associations and local authorities can be successful, but the government has to continue providing technical and financial support.

### ■ Optimising greenwater use to enhance food security

Green water is the soil moisture fraction of water available and is used extensively, since most food production is still rainfed. Optimization of green water exploitation would reduce the over-exploitation of groundwater resources. Green water must be included in the hydrological cycle and in the IWRM concept.

Rainwater harvesting systems imply changing from centralised to decentralised water systems and management. Communities can contribute to design, installation, operation and maintenance of the system, thus lessening the costs and creating a sense of ownership. The use of small scale supplemental irrigation during critical stages of plant production can also be envisaged in order to increase yields.

### ■ Financing water for agriculture requires coherency

Water for agriculture is segmented and so is its funding and governance. Reforms are needed in water institutions to mobilize additional resources. Investments in the water sector need to be more closely linked with agricultural policies, as agriculture is often a major water-user. Microfinance, co-financing structures and Public Private Partnerships are new financing mechanisms that are developing. Specific risks must be identified and allocated among stakeholders.

Although ODA should increase and IFI should re-engage in both small-scale and large-scale infrastructure investments in the agricultural sector, the bulk of the resources must be mobilized at the national level. The adoption of the principle of cost recovery is essential. The users will be more willing to pay if their service is improved.

The focus should not be put solely on irrigated large-scale agriculture. Greater attention should be given to rain-fed, small-scale agriculture, which will require different financial schemes.

### ■ Balancing demands for agriculture and the environment

Agriculture and environment are intrinsically inter-related, and meeting their demands for limited water resources must be balanced with those of other uses. Offsetting demands for one sector by decreasing the other inevitably leads to either food-insecurity or environmental degradation.

The design (and/or reform) of water services must take into account multiple water uses, including ecosystem needs, from the onset, especially in rural and peri-urban areas where diversified livelihood activities are highly water-dependent.

*The following messages are based on feedback from Forum participants who attended the various morning and afternoon sessions on DAY 4. Four hundred Voices of the Forum questionnaires have been analysed.*

*Please note that you can react and add your voice at [www.worldwatercouncil.org](http://www.worldwatercouncil.org)*

## ■ Investments in agricultural water management in Sub-Saharan Africa: Diagnosis of trends and opportunities

To attain water security, Sub-Saharan Africa needs financing for both large-scale and small-scale water infrastructures, as well as additional support for the further development of relevant institutions. Agricultural development is an area that, in particular, will require substantial investments.

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## ■ Involving youth in environmental education is a useful strategy, but not sufficient

Educating youth represents an efficient way to reach the wider community: Children → Parents → Community. By making complex water issues understandable for children and youth, an optimistic, but realistic, approach to water issues is demonstrated.

But education is broader than just teaching in schools. Water education is in reality the responsibility of every stakeholder involved in water resources development and management. This can be accomplished with low-cost materials, that are adapted to the water context and that build on existing local knowledge and culture. Creating awareness amongst the illiterate population is also necessary.

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## ■ Water quality and ecosystems

Conserving water quality needs a strong institutional and legal framework at the national level. Monitoring of water quality must also be integrated into water management at the national level. However, monitoring is typically expensive, especially when implemented at the national level. It is thus necessary to evaluate monitoring programmes periodically, to decide which parameters could be dropped and which ones need to be added.

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## ■ Payment for environmental services

Compensatory mechanisms between users and providers can internalize the cost of consumption (whether positive or negative). Because no stick market for non-commercial environmental resources exists, there is no remuneration (or penalization) for unsustainable use. Therefore, financial instruments that allow for the proper value of ecosystem services therefore need to be developed.

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## ■ New resources, good news?

Seawater can be used for limited irrigation purposes, provided the negative impacts, such as salt build-up, are avoided. Another efficient technique is the use of wetlands in agriculture, but again, environmental impacts of such practices need to be considered.