MULTIPLE USE OF WATER SERVICES (MUS) GUIDE: BEST PRACTICES IN MUS IMPLEMENTATION IN NIGER

EXECUTIVE SUMMARY

The multiple use of water services (MUS) is an alternative model for water service provision in developing countries that involves planning, financing, and managing an integrated way water services for domestic (drinking, sanitation, health) and productive uses (food security and livelihoods). Existing approaches in provision of water services focus on the water supply for single use. For example, drinking water or irrigation water which might lead to sustainability problems and conflicts due to lack of planning for multiple uses. Capital investment in MUS is often greater but the long-term returns and benefits offer significant value to the communities and development partners. It is estimated that the MUS approach could unlock under-utilized resources in the rural areas through access to additional water. The goal of the MUS approach is to introduce economically and technically viable multiple use of water services that enable poor rural households to achieve sustainable and equitable improvement in access to water, health, hygiene, food security, and ultimately income.

The best practices for implementing MUS integrate the lessons learned from the implementation of the USAID West Africa Water Supply, Sanitation, and Hygiene (USAID WA-WASH) Program in the Zinder region of Niger. The practices are a general guide to the MUS approach and therefore requires adaptations to suit the socio-economic context and the priorities of the target communities. The MUS approach is based on the principles of demand-driven water services, sustainable and cost effective approaches, beneficiary contribution towards the costs of installation and maintenance of water services, generation of income from water uses, and adaptation of the approach to the local context.

There are four MUS typologies including the domestic plus approach, productive plus approach, community driven MUS, and private water supply. The domestic plus water supply systems are developed to provide higher levels of services for both domestic and productive uses. However, the users usually give priority to domestic uses over productive uses. Domestic-plus aims at increasing water quantities for domestic and other small-scale uses in rural areas. This system addresses the priority of women and land poor people in the community for whom the homestead is often the only place where they can engage in productive enterprises. The productive plus approach promotes investing in water infrastructures for domestic uses, where there are existing productive water sources. Planned add-ons are usually low-cost, but generate benefits. The widespread conjunctive uses of surface canal water and groundwater is another field where planning based on multiple uses and multiple sources (for instance the use of groundwater for domestic water and wells for agriculture production) leads to higher benefits. In community-driven MUS, community members invest in water infrastructure for both productive and domestic uses. This approach focus on communities and their holistic existing water practices and priorities. It is a bottom-up approach that facilitates needs-based technology choices and siting, adapted to the local environmental, institutional, economical, and ocial situation. Private water supply targets individual households with capacity to pay for water services. Other complementary MUS approaches include village savings and loan associations (VSLA) and community-led total sanitation (CLTS).

Integrating water needs takes into account the existing water uses, the number of users, the water sources, and potential water supply options to meet the identified domestic and productive water needs. The information is collected through a water accounting exercise which is the first step in MUS implementation. The best practices that enhance the sustainability of the MUS approach include: (1) involving and capacity building actors from water and related sectors on the MUS approach; (2) addressing integrating water needs based on information from water accounting; (3) emphasizing community contribution towards water infrastructure investments; (4) developing effective governance structures to manage water services; (5) ensuring compliance with water quality standards; (6) promoting appropriate technologies; and (7) integrating gender to ensure both men and women participate in water service management and implement productive activities.

The inclusion of actors from various sectors such as water, health, agriculture, and private sector in the development and implementation of the MUS activities is crucial for the sustainability of MUS. This involves building the capacity and raising the awareness on the approach at various levels including the community, district, national government, local and international NGOs, and private businesses.

Financing mechanisms define who contributes how much to the recovery of the water infrastructure investment costs. These are the costs related to putting in place the required infrastructure, management, and institutional arrangements for converting water resources into water services. Community contribution to the water points' investment costs and planning for long-term financing related to operations, maintenance, repair and replacement of capital infrastructure are essential elements for the sustainability of MUS. Further, effective governance structures such as MUS committees should be put in place for the management of the water services and for community water points. In addition land should be secured through a legal transfer of land ownership to the community to guarantee unlimited access to the water point by all community members.

The MUS approach should ensure compliance with water quality standards. The drinking water sources should be analyzed to ensure the water meets both government water quality standards before access is granted to the community. The cost of analyzing the water samples could be supported by development programs, the community or the municipality. However, designing low-cost water testing options for rural communities enhances the sustainability. In addition, the MUS approach should build the capacity of the local communities on safe water, water borne diseases, and environmental hygiene. Local water point management committees should be equipped with hygiene promotion kits so as to continue delivering key hygiene messages to the community members.

For the sustainability of the MUS approach, appropriate technologies should be used to deliver water services to target communities. The proposed solutions should be affordable to the population. The local private sector enterprises (manufacturers, drillers, masons, etc.) should be trained on the materials used for construction of the water infrastructures. The private sector enterprises should also contribute to the costs of technology acquisition and training to improve their sense of ownership and engagement towards the MUS objectives. Training both private sector enterprises, local technicians, and members of the water point management committees on maintenance of water infrastructures, pump installation, and basic repairs is important as they are responsible for preventive maintenance of water infrastructures at the community level.

Finally, MUS approaches should integrate gender through the use of qualitative gender rapid appraisal tools to identify gender dynamics that influence participation of both women and men in water point management committees and that contribute to the successful long-term maintenance of water points.

The MUS approach is innovative, holistic, sustainable, and easy to replicate. The approach enhances water points' ownership by the beneficiary communities through the contributions towards the cost of installation and maintenance of their water points. Moreover, the approach generates income and increases the sustainability of water services. MUS is constrained by inadequate organizational capacity, technical expertise, and limited funds. Designing and implementing integrated programs require high investment and maintaining quality programming across sectors is challenging because many development agencies are sector-based.

The full report is available (in English) upon request via our website. For more details about our program activities and other reports please visit http://wawash.fiu.edu/

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