

## Executive Summary

### 1. Background

### 2. Findings: Costs and benefits

### 3. Findings: Poverty Impacts

### 4. Findings: Market Mapping

### 5. Opportunity Action Areas

## 6. Strategic considerations for implementation

### 6.1 Overview

### 6.2 Criteria for successful implementation

### 6.3 Potential risks and mitigation measures

### 6.4 Scaling-up

The results of study suggest that multiple-use services can cost-effectively maximize poverty impacts of water services while enhancing sustainability with the potential to improve the lives of over 1 billion rural poor in South Asia and sub-Saharan Africa. Achieving this potential will depend on ability to implement sustainable multiple-use services at scale. Concrete action towards achieving the potential of multiple-use services raises some important questions:

- What needs to be in place for successful implementation of multiple-use services?
- What are the risks of implementing multiple-use services and what measures can mitigate them?
- How can multiple-use services be scaled up?
  - What are the key enabling conditions and capacity for scale-up?
  - What are alternative approaches to implementation and scale-up processes?
- How to assess readiness for implementation and scale-up?

This section provides some initial answers to these questions by:

- Identifying key criteria for successful implementation
- Pinpointing potential risks that may influence sustainability of multiple-use services and mitigation measures
- Identifying enabling conditions and capacity at the intermediate level and alternative approaches to catalyze for scale-up processes
- Providing a rapid assessment tool for evaluating readiness for implementation and scale-up

With the exception of water availability, all criteria can be addressed through carefully designed projects and programs. However, the more criteria that are met at the outset, the greater the speed and lower the costs and risks of implementing and scaling-up multiple use approaches. Pilot sites identified for each opportunity area meet most, if not all, of the criteria.

### Water availability

Sufficient water available to support domestic and productive uses. Alternative sources can be utilized to support different uses, based on service level requirements

### Management capacity

Technical and financial management capacity at local, intermediate and national scales. The larger the scale of impact, the greater the need for capacity at the intermediate and national levels (discussed further on next slides).

#### Technical

- Plan, design and construct appropriate multiple use systems, including system upgrades, to support domestic and productive activities
- Operation and maintenance—technical capacity to ensure long-term capability to operate, maintain and repair the system, including access to spare parts, capability in water quality monitoring.
- Capacity to monitor, anticipate and adapt water management practices to ensure long-term sustainability, including hydrological interconnections between different parts of the hydrological system

#### Financial

- Sound and transparent fiscal management capacity, including appropriate cost-recovery mechanisms, tariffs, incentives for wise-use and sufficient capital reserves for maintenance, repairs and replacement infrastructure.

**Water rights**

- Informal and formal enforceable rules and regulations for determining how water is developed, allocated and used
- Water allocation mechanisms that explicitly address competing uses and users, particularly addressing issues of scarcity, quality-quantity and equitable access.

**Financing and credit**

Sufficient financial resources and supporting credit institutions to ensure access to adequate credit for system construction and to support productive activities.

**Sector and policy coordination**

- Ability to work effectively across sectors and stakeholders—both horizontally and vertically
- Policy and institutional environment that is conducive, or at least neutral, to multiple use approaches

While the evidence suggests that provision of multiple-use services enhances sustainability, potential risks exist. The risks presented below represent a compilation of common concerns and suggested mitigation measured by sector experts.

Risk	Mitigation measures
<p>Multiple-use services require technical systems that provide more water closer to households, implying higher capital investment and operational costs. Poor communities may not be <b>able to pay</b> for and maintain these systems.</p>	<p>Evidence suggests that incremental income and non-financial benefits from multiple-use services should be sufficient to cover incremental costs for appropriately designed and managed multiple-use services. However, planning activities must include a detailed financial analysis of the requirements for capital investment, recurrent costs for maintaining the service versus user affordability, and scope for equitable allocation to users with varying abilities to pay.</p>
<p>Even when individual households receive additional benefits from water for multiple uses, they may not show increased <b>willingness to pay</b> for the service and reinvest in its functioning.</p>	<p>Evidence shows that people are willing to pay and re-invest in systems that better meet their range of needs, but this is also related to other system performance indicators. Further research is needed on willingness-to-pay for multiple use services so that possible mitigation measures can be defined.</p>
<p>Water for multiple uses will be used mainly by the better-off who have access to other assets (land, credit, etc.), <b>aggravating differences and tensions</b> within the community.</p>	<p>Water scarcity and the political control of water resources and systems suggest that this risk will persist and requires attention to social, economic and political heterogeneity within a community and approaches that target the needs and limitations of the poorest. Evidence shows that even the poorest have access to some assets, and that water interventions in the past have not targeted the productive water needs of poorer households.</p>

Risk	Mitigation measures
<p>Providing water for multiple uses may result in <b>inequitable distribution</b> within a community with particular concern that basic drinking and domestic supplies for all may be encroached upon.</p>	<p>In most conventional domestic systems, services are designed to ensure at least basic access for all. A range of measures can help ensure the multiple-use systems provide basic access for all, including:</p> <ul style="list-style-type: none"> <li>• Technical measures to control distribution of water such as in-flow control devices and small diameter taps.</li> <li>• Institutional measures such as establishing rules regarding types of use that are allowed and distribution in times of scarcity</li> <li>• Financial measures such as payment based on actual use and incentives for efficient use</li> </ul> <p>In practice, a combination of all of these is needed.</p>
<p>Providing water for multiple uses results in additional <b>stress on scarce water resources</b>, compromising resource sustainability.</p>	<p>While multiple-use services involve provision of greater quantities of water, evidence suggests that the total amounts required will remain small when compared to other uses on a catchment basis, even when scaled up (well-established). However, multiple-use approaches may increase local competition over water resources reinforcing the need for integrated local-level water resources management.</p>
<p>Providing water for multiple uses may result in <b>health and environmental risks</b>, especially when drainage is not properly addressed.</p>	<p>Some anecdotal evidence exists on potential health and environmental risks associated with drainage water. For example, pooling of drainage water may provide breeding sites for malarial mosquitoes may breed or contaminated drainage may pollute nearby water and land). Multiple-use systems must consider return flows in both infrastructure designs and water management.</p>

## Key Findings:

### Readiness for implementation and scaling-up depends on:

- **Enabling conditions and capacity at the intermediate level.** Intermediate level organizations and government agencies are those operating between communities and the national level (Schouten and Moriarty, 2004). Intermediate level organizations play a critical role in sustaining and supporting the community management of multiple-use services.
- **Strength of existing implementation approaches, including self-initiated, project-led, and government-led approaches.** Different approaches can be used to catalyze scaling up processes. Scale-up strategies in each country should build upon the strengths and capacities of existing approaches, and how they can work together synergistically.

Drawing on Van Koppen et al. (2008 forthcoming) key considerations for scaling-up are presented, including: key enabling conditions and capacity at the intermediate level, implementation approaches, and considerations for assessing overall readiness for implementation and scale-up processes.

Note: This section is biased toward domestic+ approaches. Scaling-up irrigation+ approaches may require other considerations for scaling up but to date these have not been well researched.

As with scaling up single-use services, multiple-use services require that a number of enabling conditions and functions be fulfilled at the intermediate level. For intermediate level organizations to fulfill these functions, sufficient resources (human, financial), mandate (policy and legislation) and political willingness (institutional motivation and support) are required.

The following three conditions in particular must be met and are often shaped by national policy frameworks :

- **Participatory planning.** Multiple-use services requires planning for diverse water needs. Participatory planning ensures that needs are met and minimizes inequity and conflicts regarding water allocations. Planning activities should pay particular attention to heterogeneity in poverty, livelihoods and political capital (the ability to voice needs and exercise demand) within a community. This requires a number of realistic options and strategies to meet specific needs.
- **Broadening ‘narrow’ institutional mandates** of domestic and irrigation agencies. The water sector is highly segmented for provision of single-use services. Scaling up of multiple-use services requires relevant agencies to broaden their mandate to provide for multiple-use services. Experience suggests that changes in mandates should focus on scaling up efforts within the domestic and irrigation sectors, rather than merging sectoral institutions. Experience shows that cross-sectoral initiatives are unlikely to occur, at least initially, due to high transaction costs of institutional coordination between agencies.
- **Loosening sector-based financing models.** Current financing models for water services are based on single-service provision models and often tied to technical norms and standards for either domestic or irrigation services. Scaling up multiple-use services will require additional financing with more flexible rules for provision of multiple-use services. Along with institutional mandates, agencies need to clearly define the spread of additional investment costs among agencies and plan cost-sharing strategically.

There are three primary approaches to implementing water services; each of these approaches should be considered a potential initial entry point to catalyze scaling-up processes for multiple-use services. Each approach differs in strengths, weaknesses and needed support from the enabling environment. Achieving impact at scale will require a combination of approaches that work together synergistically over time.

- 1. Self-initiated approaches.** Households and communities do the majority of the investments themselves; community (or household) ownership is genuine; development of services is based on actual needs; demand is illustrated by willingness and ability to meet costs. Government programs can support self-initiated supply and achieve impact at moderate scales; however, full coverage and sustainability will not be achieved without support programs and special attention on the poorest households, which do not have the resources to make investments in their own water services.
- 2. Project approaches.** Donor and NGO driven approaches can catalyze scaling-up of multiple-use services through innovation, demonstration, learning by doing and leadership. However, important donor and NGO approaches have important limitations in terms of sustainability and coverage. Intermediate level agencies, especially local government, need to be actively engaged with appropriate mandates and sufficient capacity and resources to ensure long-term support for sustainability.
- 3. Formalized, programmatic government led-approaches.** These approaches have the potential for scale in terms of coverage and sustainability. However, they are often characterized by rigid norms and frameworks, which may not be conducive to multiple-use without sufficient momentum and demand for change.

## 6.4.3 Considerations for Assessing Implementation and Scaling Up Readiness: existing approaches, intermediate level capacity, and overall readiness

10



<b>Government-led approach</b>	
Low	Water services and water resources policy, norms and standards may restrict MUS approaches.
Medium	Water services and water resources policy, norms and standards are neutral vis-à-vis MUS.
High	Water services and water resources policy, norms and standards are promoting or conducive to MUS approaches.
<b>Project-led approach</b>	
Low	None of the larger implementing NGOs or projects are following an explicit MUS approach.
Medium	Some of the larger implementing NGOs and projects are following a MUS approach, but in an ad hoc manner.
High	A number of major implementing NGOs or projects are following an explicit MUS approach.
<b>Self-initiated approach</b>	
Low	Communities and households are not developing and investing in their own services.
Medium	Communities and households are developing and investing in their own services with a MUS focus, but not seeking intermediate level support.
High	Communities and households are developing their own MUS services, and seek intermediate level support.
<b>Intermediate level enabling environment and capacity to support multiple-use services</b>	
Low	Intermediate level organizations (local government, local NGOs, and private sector) are not aware of the MUS approach, and are not able to support communities.
Medium	Intermediate level organizations are aware of and endorse the MUS approach, but do not have the capacity to actively support it.
High	Intermediate level organizations actively support communities in MUS services delivery.
<b>Overall readiness and potential scale-up</b>	
Low	There is no clear entry point for MUS yet; these need to be developed first through awareness and advocacy.
Medium	There is at least one clearly identified entry point for MUS in a country; but capacity is not sufficient at all levels to take it forward. This needs to be strengthened prior to the scaling up process.
High	There is at least one clearly identified entry point for MUS in a country, and some capacity at all levels to take it forward. Potential exists to start working at scale, but further strengthening of capacities is needed.