# A preliminary view of the Multiple Use Services (MUS) perspective pertaining to water sector investments

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**February 5, 2010**

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This essay is prepared according to the grid of five statements (A through E) provided by organizers of the Multiple Use Services Workshop in Leiden, The Netherlands in February, 2010.

A. Conceptualization of Multiple-Use water Services (MUS), from your own perspective and experiences

My current understanding of the MUS perspective is based on my reading of several background documents and the expert notes prepared for the February Workshop. It appears at this time that the MUS perspective has been put forward to encourage investments that improve livelihoods and reduce poverty by providing more water per capita to poor households, so that household members may use water for a broader array of activities other than basic irrigation (irrigation+) or basic domestic purposes (domestic+). As water supply per capita increases (or access to water is enhanced), households move up the MUS ladder. Households with better access to a larger supply of water have fewer problems related to water access and supply. They also have enhanced opportunities to use water for daily domestic needs and for productive purposes.

Upon initial review, many observers might consider the MUS perspective to be a new way of viewing investment opportunities in the water sector. At the level of generating public awareness, this might be the case. However, from a technical, conceptual viewpoint it is not yet clear that the MUS perspective represents a truly innovative development. Rather, it appears that the MUS perspective largely reflects a call for greater attention to incremental investment opportunities in settings where interventions in the water sector are desirable.

If this assessment is accurate, then the MUS perspective is a re-packaging or alternative representation of well-known concepts, rather than a new conceptual development. In particular, the MUS perspective might be largely a re-packaging of incremental investment analysis in which one considers the incremental costs and benefits of investment alternatives. That framework is long-standing and the corresponding analytical methods are well known.

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B. Operationalization or specification of that conceptualization in terms of Cost-Benefit Analysis and performance, and related scientific methodologies

If the MUS perspective is primarily an alternative representation of incremental investment analysis, then the methods for evaluating MUS opportunities are well established. There is no need to develop new methods or new performance measures. To be sure, it can be challenging to assign monetary values to many of the benefits made possible by enhancing water supply. However, the framework in which incremental benefits are compared with incremental costs is well known.

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C. Evidence and/or hypotheses of the superior performance of MUS compared to single-use approaches with related performance indicators (or be the devil's advocate on any lack of proof and hypothesized disadvantages)

To the extent that MUS is a perspective, rather than a new conceptual development or a truly new approach to choosing investments in support of economic development, it might not be appropriate to consider whether or not MUS out-performs an alternative approach. It is reasonable to expect that a broader, more complete consideration of investment options will provide more information than a consideration of a narrow set of alternatives. Hence, it makes good sense to consider irrigation+ and domestic+ investment opportunities. It also makes sense to evaluate multiple use systems in their entirety, from the outset. Credible economic analysis of the full range of investment opportunities generally will be preferred to a more partial analysis. This is true, whether or not one explicitly implements an MUS perspective.

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D. Three most promising next steps to tap the untapped opportunities of MUS for practical change in design and implementation

Perhaps the MUS perspective can be helpful in creating greater awareness of the importance of considering a broader range of investment opportunities within the water sector. However, even within that context, proponents should proceed with care in presenting the perspective and describing potential implications. To this end, I prefer to provide three notable limitations of the MUS perspective:

1. The MUS perspective is not based on a unique conceptual framework that provides an underlying theoretical foundation. Rather, the MUS perspective is a statement of the possibility for generating greater returns to water sector investments by considering a broader array of water uses at the household and community level. The conceptual basis for comparing incremental benefits and costs of investment alternatives

certainly pertains to the MUS perspective, but that concept is already well established. This distinction might seem subtle, but it should be kept in mind when promoting a perspective that describes empirical information, while not reflecting an underlying conceptual framework.

2. The MUS perspective, while calling for a broader view regarding potential investments, remains somewhat myopic. By design, the MUS perspective examines investment opportunities pertaining to water supply. In many cases, improvements in water supply will be helpful in improving livelihoods and reducing poverty. However, water is one of several essential inputs in agricultural and household production functions. Successful efforts to achieve meaningful, sustainable improvements in livelihoods require a much broader perspective than considering only investments pertaining to water.

   At a minimum, the analysis of investments in the water sector must include consideration of the complementarity of water and other inputs in agricultural and household production functions. It is not necessarily helpful to improve water supply in situations in which other essential inputs are unavailable or unaffordable. Helpful increases in public awareness can be achieved only if proponents of the MUS perspective inform observers of the need to invest more broadly to ensure the availability of complementary inputs.

3. The MUS perspective, by design, is water-centric. While not a fatal flaw in the perspective, it is essential that analysts consider a broader view of investments that might improve food security and reduce poverty. It seems a more appropriate approach would be to first determine the interventions that make most sense from the household and village perspective, and proceed from there. Starting from the water-centric MUS perspective can impose constraints that (unintentionally) might prevent consideration of best-case scenarios for improving livelihoods and reducing poverty.

   Consistent with this statement, the cost/benefit ratios describing incremental investments within the context of the MUS perspective should not be interpreted as sufficient criteria for determining the best ways to improve livelihoods and reduce poverty. Indeed, in any situation, there might be several alternative investments that do not pertain directly to water resources, yet provide larger gains in income, health status, and other important livelihood metrics. Cost/benefit analysis within the MUS perspective does not consider the opportunity costs of potential gains from other, more broadly based investments.

E. Related to priority research topics and methodologies that corroborate advocacy to promote MUS (or challenge the expected superiority of MUS).

It is not clear that efforts to promote or challenge the MUS perspective will be particularly helpful in reducing poverty and improving livelihoods. Rather, it seems that analysts should determine the best investments and interventions by examining a broader set of alternatives than the MUS perspective considers. Analysts should not be limited to a water-centric perspective. In addition, they should begin their inquiries by learning from households and communities about the investments and interventions that will be most helpful. They should then proceed to develop smart investment packages to achieve meaningful development goals. Those packages likely will include water sector components in many settings. But limiting one's perspective to the water sector at the outset will reduce the likelihood of identifying the best investments and interventions.

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