Report MUS Group meeting 5th – 6th June 2014

Hosted by WaterAid, London, United Kingdom

Background

In areas experiencing water security challenges, a MUS approach offers the opportunity to meet all water needs and provide greater resilience to water related threats. But what mechanisms exist to ensure that water is shared equitably between different water users? How can water users understand how much water can be used on a sustainable basis? What service delivery models need to be in place to ensure secure access to water for all needs? This MUS Group meeting focused on the relation between water security and multiple uses of water. Through a number of presentations from case studies these questions were tried to be answered.

Objectives

Specifically, the objectives of this meeting were

- Discussing the linkages between MUS, equitable and sustainable water use
- Discussing different service delivery models for MUS
- Identifying good practice, gaps in knowledge and future research needs

Opening

The meeting was opened by Vincent Casey of WaterAid. In his opening remarks, he explained the overall topic of water security and the various sub-topics around it that would be addressed in this meeting, such as equity, service delivery models and water resource management. He also introduced the agenda in detail (see annex 1).

On behalf of the MUS Group, Barbara van Koppen (IWMI and coordinator of the MUS Group) thanked WaterAid for hosting this meeting. In her opening remarks, she gave some further background to the origins and developments of the MUS Group, and on its current structure and operations.

A round of introductions was done, with the different participants presenting themselves. See annex 2 for the participant list.

Block 1: Equity

In the first presentation of this block, Barbara van Koppen (IWMI) presented the issue of equity and human rights in water resource management, with specific emphasis on South Africa. In her presentation she made the point that much effort has gone into developing frameworks for re-allocation of water resources, in order to redress inequities of the past. However, in order for reallocations to be effective, much more needs to be invested in service delivery. Without infrastructure for multiple uses, people cannot use water and reallocations may not happen. So, the key question is how to get services to the users. In the questions that followed her presentation, she clarified that water allocation needs to be linked to land reform but that this has failed to be linked in South Africa. People always have small bits of land around their homestead, which is a hitherto largely ignored site of production, in spite of the fact that it is very important for the poorest. A discussion also followed on the "ideal" Gini coefficient for water resources distribution. Though no data exist for other countries, in an agricultural society, particularly with lots of informal users, water should be much more equitably distributed than it is now. Only in an industrial society, equal distribution makes little sense, as there are a few specialised big commercial users, and most people have non-water dependent livelihoods. She did also clarify that environmental flows and water use by ecosystems are not reflected in the Gini coefficient presented. The discussion session ended with the issue on how this kind of thinking links to the broader debate on IWRM. Barbara clarified that IWMI has always been critical on IWRM, particularly in informal settings and economies. South Africa is also putting more emphasis on "developmental water management", understood to refer to the need to develop more infrastructure and services in those settings.

The second presentation in this block was by Julia Boulenouar of Aguaconsult. In her presentation, she highlighted important and sometimes counter-intuitive, data on water use from improved water points in Burkina Faso. On the one hand, people used much less than the normative 20 lpcd from improved sources, and depended much on alternative, unimproved, sources. At the same time, the water points were often over-used for cattle. In fact, in some cases, even special tariff structures were developed for cattle owners – though not necessarily implemented in a structural manner. Much of the discussion that followed her presentation went into the issue of tariffs, highlighting that the principles behind the tariffs are adequate to address equity issues. But, its implementation is difficult, as often cattle go from one water point to another, and there are different moments in time when users pay (once per month, and in others once per year). Another way to somehow address equity is through timing of water use. For example, cattle could only drink from water points in the evening hours, after everyone has been able to get their share of water for domestic purposes. She did highlight in her answers to multiple use for cattle is somehow part of the design already, with cattle troughs being mostly a standard part. But other uses are not always taken into account. Much of the lower than expected use for domestic purposes lies in the fact that many people have unimproved sources close to the homestead and convenience weighs in more for people than water quality. And even improved sources may actually have water quality problems. A question for further discussion is whether there is not more scope to better protect the family wells rather than put so much effort on the communal ones.

Block 2: Service delivery models

This block started by a presentation by Tidiane Diallo of WaterAid. He explained the planning cycle followed by WaterAid (from design, to construction, use and monitoring) and the need to articulate multiple-use more clearly in this process. At the moment, multiple use is often considered because there are no alternatives; communities need it. But we don't always call it like that, and don't follow a systematic MUS approach. A key question that came up is on tariff setting and whether an increase in revenue also leads to more contribution to running the services. Tidiane explained that they know average amounts for routine maintenance costs and that these are included in the tariff. However, it is not always possible to recover all costs of major break-downs and repairs. A second point of discussion was in terms of equity in benefits around small dams. There are indeed sometimes conflicts on land use around the dam. There is also an area for gardening, through shallow wells, but then not all plots of land are close enough to the well. Also, there are issues with the ones who provided the land for the dam construction, highlighting the need to get these commitments in writing. Finally, it was highlighted that there are specific designs for technologies, and communities are often informed on the technology options on what they see in next-door communities. But there are no guidelines or approaches to do MUS structurally and come to a systematic technology selection.

The second presentation focused on the case of Madagascar, by Tiana Zo A. Rakotoarisoa of Water Aid. Two types of scenarios of de facto multiple-use are found. The first is where people living close to reservoirs, used water from overflow of these tanks to grow vegetables or have fish ponds. The second scenario is the promotion of vegetable gardens at schools. It is however felt that there would be much value in promoting MUS more systematically and at larger scale – but that would require changes in design guidelines. As Odile Randriamananjara of WaterAid Madagascar added "we need a revolution to scale up MUS". In the discussion that followed, it was suggested that the revolution can start by documenting cases of de facto multiple use, to showcase that it is happening anyway, the benefits derived from it and how not addressing multiple use may affect sustainability. In addition, there is often a need to do a series of pilot studies to assess the incremental costs and benefits. There are real additional costs, but often these are quite modest. And benefits may be important, leading to a high benefits – costs ratio for investments. That in turn also requires a focus on donors, to show them the additional costs and benefits.

Katie Spooner then presented the case of CAFOD and how it is moving towards a MUS approach, by building resilience and sustainability into their local water resource management programmes, illustrated by an example from Kenya. She highlighted that many aspects of multiple use are part of their programmes. But now there is a need to do so more consciously in the context of a generalist organisation, like CAFOD. To make it more conscious, amongst others, project assessments would need to be done more from a community perspective and not form a thematic one, and these need to be responded to in a holistic manner. In the questions and answer session, she clarified that the example from Kenya is transferrable in terms of the principles behind the approach, such as the comprehensive assessments and analysis. Finally, she emphasised the carrot and stick approach to conservation works, like terracing, through providing vouchers, awareness raising and reigniting traditional practices.

The final presentation in this block was by Stef Smits (IRC), presenting work on establishing arrangements for community management of multiple use services in Honduras. The basis for that is a detailed assessment of user categories and their typical water use patterns. Based on

that, one can decide whether there is need to have specific designs and specific arrangements (like differential tariffs or local regulations) around multiple use. In the questions session Stef expressed also some reservations about some of the locally developed regulations and tariff systems; they may be overcomplicated and in such instances, water metering may be more straightforward. He also highlighted that at basin scale, water resources may be abundant, but locally there may be competition between several small-scale users. It is not easy then to transfer water from one part of the catchment to another due to the challenging mountainous terrain and limited possibility to build storage capacity.

Block 3: Summary of the RWSN/MUS Group e-discussion

In May, the MUS Group and RWSN (Rural Water Supply Network) organised an e-discussion on multiple-use services. During this meeting, a summary of each of the four weeks was presented (compiled into one Power Point Presentation). In the discussion and reflection that followed, these points emerged:

- It was felt that the e-discussion may not have generated many new insights; they confirmed much of what has been captured in previous work. But, it did yield many new cases from countries that so far hadn't been included in the MUS documentation repository. Moreover, it mobilized a big network of some 400 participants, which is much more than the Group so far had on its mailing list.
- One of the remaining questions relates to the relevance of MUS for the poorest of the poor. The few cases that dived into this, show that water for multiple use is often most relevant for the middle group, i.e. the ones who are poor but not the poorest in a community. They have some other assets (land, cattle, etc) to use water for. The poorest may lack those. At the same time, even for them MUS is relevant as often the only source of water.
- Another point that continues to be missing at least in this e-discussion is the quantification of incremental costs and benefits. Earlier studies by Winrock have indicated positive incremental cost-benefit analysis, but it remains important to add more data on this. In that sense it would be good to have standard tools to collect incremental cost and benefit information
- The link between sustainability and multiple use remains a chicken and egg one. In spite of the possibility to create more revenue through MUS, this is not necessarily reinvested in the system; but it may be.
- Finally, it was clarified that MUS is not necessarily only a rural issue; it is also relevant in peri-urban areas, or where there are cases of urban agriculture. In such settings, regulation and use of wastewater becomes important.

Amongst others triggered by the need to have standardised tools on incremental costs and benefits, Stef Smits (IRC) presented the guidelines for planning and development of multiple-use, as developed by the MUS Group (also downloadable here). These guidelines are structured according to a service delivery cycle, with objectives, activities and tools for each of the stages in this. In addition, there are two parallel stages related to the creation of an enabling environment for MUS. The guidelines are now also available as an online toolkit on the Group's website www.musgroup.net. If members have examples of tools, they can submit them to Stef and then they can be added to this toolkit. It seems that there is especially need for more tools that tackle equity more explicitly.

Block 4: Book launch

The day ended with the launch of the book "Scaling up Multiple Use Water Services: Accountability in the Water Sector", authored by Barbara van Koppen, Stef Smits, Cristina Rumbaitis del Rio and John B. Thomas (and available here). Barbara presented the summary of the book, explaining how the accountability triangle, as developed by the World Bank, has been used as an analytical tool to assess barriers for scaling up MUS, as well as opportunities to overcome those. By taking users' needs and voices as a starting point, services can better respond to those and will almost always be for multiple uses. Thereby, also performance in the different water using sub-sectors can be enhanced generally.

Block 5: MUS and water security

This block, which focused on how MUS contributes to water security at community and local level, started off with a presentation by Lucien Damiba from WaterAid Burkina Faso, on monitoring of groundwater and rainfall for multiple uses, as part of an approach of community-based water resources management (CBWRM). By having data on groundwater, users can better plan their services for multiple purposes. The insights obtained often led to the realisation that there was more water available than thought; in other cases, there was rather the need to limit some uses. It thus complements multiple-use, contributing to sustainable groundwater use. A key question that came up in the discussion is whether the community is the right scale at which to develop these monitoring skills. It was felt that this is indeed the case, as (local) government often doesn't have the capacity for monitoring. But by involving councillors, capacity can be built of the *communes* (local government), and WaterAid sees this scaling up already to other villages in the *commune*. Also, it was clarified that the community themselves do the analysis and interpretation of the data, they make the graphs, etc. They are excited to do this, because they can use the data also for their agricultural calendar. One area to strengthen still is the targeting and involvement of women in the monitoring.

Nega Bazezew Legesse (Oxfam GB) presented a case from Niger on local water resources management for MUS. In this case, the starting point was the multiple water demands and needs from the community. Through combing water sources and technologies these could be met, with impacts, for example on food security (increased number of meals per day). Also challenges were faced, for example, in relation to land tenure and continuous monitoring. In order to move forward, there is now a need to standardize this into an approach or method of combining technologies for multiple sources for multiple uses, so it can be applied in a systematic manner elsewhere.

The next presentation in this block was given by Simon Maddrell (Excellent Development), focusing on the multiple use of water from sand dams in Kenya. In their work, Excellent Development found that indeed sand dams are used for all kinds of water uses, from drinking to nurseries and livestock. However, there are also questions around the sustainable use. First of all, one doesn't know how much water is stored: you know when you have used too much, but not when you are under-using. Moreover, it is difficult to predict the different types of use that can be done beforehand. Finally, it must be noted that the Self-Help Groups, with whom these dams are developed, often do not represent the entire community, making it also difficult to know how many people will use it. In the questions and answers session, much emphasis was put on clarifying the costs of the dams putting these between £7500-22000, plus community

contributions, for dams serving between 400-1200 people. Maintenance of the dams themselves is weak, but communities do the maintenance of the shallow wells. Also the benefits are hard to quantity. Efforts have been taken to obtain insight into the income generated, but farmers are often loath to provide that information.

Via phone link, Barbara Evans (Leeds University) presented some MUS-related findings of a report on health and social benefits of at-house water supplies. This study found interesting patterns on how users take decisions on which source of water to use for different purposes. Indeed, even where people had improved supplies at the homestead, they often combined these with other ones, such as private wells. The key driver in decisions on which source to use most was predictability of the supply and not distance (as expected) or quality alone. In the discussion that followed, it was felt that there is a more widespread acknowledgement in these kinds of survey studies to look more systematically into the productive use of water, the benefits these generate and how people combine their many water sources, also for example in the current DFID Value For Money study. Another point that possibly affects choices in the use of water sources. There seems to be a tendency that the more wealthy a family is, the more sources of water they have. But this needs some more number crunching. Barbara concluded the question and answer session by expressing the wish to draw more on the knowledge of the MUS Group and point towards an upcoming study by one of the MSc students on combining rainwater harvesting with other sources of water in Nicaragua.

Discussion

This part of the meeting ended with a discussion on the overarching issues emerging from the previous blocks. The following was concluded:

- Much of the work on MUS seems to have focused on management of water resources at the local (community) level. It is important to make the linkages with the broader catchment scale, to ensure that the development of MUS in one community is not to the disadvantage of other communities. It is important to clarify though that this would not be the scale of river basins, but more at the meso-level, like a micro-catchment, a watershed or a local aquifer. By starting from the local level, things can happen; if you wait for the basin scale to move, things may get paralysed. At that scale you will not even see the effects of doubling or tripling the amounts of water needed for multiple uses, but they may have very local or meso-scale effects. At that scale you may also see competition for water between different small users.
- Monitoring of water resources and hydrological surveys at the local level are important in this. But it also means getting data on what the real water needs and demands are. That can work very empowering: if you show that people have multiple water needs, you can advocate for MUS. But this must be done very carefully as there have been cases of disempowerment, where authorities do not trust or acknowledge community data.
- This also means that in terms of governance, communities must be linked to higher levels authorities, in charge of water resources management. It is also in platforms of communities, decision makers and local government that data can be discussed and monitoring can take place.
- As with any other water development, if you don't pay attention to equity, MUS may lead to elite capture. The recommendation is to target specifically to the most vulnerable. This in turn means that from the onset there is need to analyse power relations and systematically categorize the groups of users in a community and to protect weaker voices in this. A question remains on how to work with those who don't have any other assets to use the

water like land or animals. It is also important, from a WASH perspective, to link with agricultural investment programmes and social protection schemes to do joint investments. Tariffs remain another bone of contention. A balance needs to be found in tariffs that reflect principles that the ones who consume more, contribute more, without them being prohibitive for undertaking multiple activities.

Block 6: Tools, processes and materials for MUS

This block focused on a structured approach towards MUS, as developed by Winrock International under the umbrella of Solution MUS. Mary Renwick of Winrock presented this work by Skype, explaining the conceptual framework they use for MUS, which goes, depending on context, into the areas of health, livelihoods and environment. This was illustrated by two extensive case studies from their MUS programmes in Tanzania and Burkina Faso, and video material (of which this one is already available online). It ended by highlighting the various support materials, including guidelines, advocacy videos and training material developed as part of the Solution MUS. In the questions that followed, a key issue that arose was the need for training of national stakeholders. This consisted often of raising awareness of why a MUS approach is followed and why that is of importance to generate an enabling environment for MUS. A second area of questioning was equity. Mary, in her answers, focused on the concept of incremental equity: many of the equity concerns are similar to ones in other WASH projects and need to be addressed. But there are also additional ones that may arise due to MUS. Finally, a question arose on the incremental costs and benefits, and the need to quantify those.

Block 7: About the MUS Group

Stef Smits, as Secretary of the MUS group, presented the background to the Group and the various products and services that it offers, giving amongst others, a detailed walk through the revamped website. He also provided a brief account of the activities since the last meeting in December 2013 and upcoming activities and issues. The main ones that were discussed are:

- Membership. All attendants will be added to the mailing list and – unless someone wants to unsubscribe – will thus become individual MUS Group members. Core membership, on the other hand, implies that an organization subscribes to the goals and activities of the Group and commits to attend at least one event per year.
- Contributions to the website and newsletter. Stef calls upon everyone to provide links to documents, studies and other relevant material to be included in the newsletter. A next edition will probably come out in July, just before the summer holiday.
- Upcoming meetings. So far, the only other upcoming event where the MUS group will be present is the ICID (International Commission on Irrigation and Drainage) congress in autumn. This will focus mainly on irrigation-plus approaches.
- Relationship with RWSN. It was felt that the collaboration with RWSN was very fruitful around the e-discussion. The MUS group will seek a closer association with the family of networks hosted by RWSN and will request the core members to proceed in exploring those further collaborations. As there were only few core members available, this was not discussed in the meeting.

Annex 1: agenda

5 June 2014

9.00: Opening
- Registration
- Welcome to participants, background to the meeting and introduction to the MUS Group and the agenda. By: Barbara van Koppen, coordinator MUS Group
- Welcome to WaterAid and background to WaterAid's work on MUS. By: Vincent Casey, WaterAid

9:30 – 11:00 Block 1: Equity in multiple use service delivery

This block will explore the degree of equity in access to water for multiple use services, and mechanisms to address equity.
- MUS: equity and human rights in water resources management in South Africa and elsewhere. By: Barbara van Koppen, IWMI
- MUS and equity in Burkina Faso, presenting findings from the ongoing Triple-S initiative in the country. By: Julia Boulenouar, Aguaconsult

11:00 – 11:30 Tea Break

11:30 – 13:00: Block 2: Service Delivery Models for MUS

This block will explore different models for service delivery for MUS, particularly community-managed ones.
- MUS approaches in West Africa. By: Tidiane Diallo, WaterAid
- Scaling up MUS in Madagascar. By: Rakoto- Harisoa Rodolphe, WaterAid
- Moving towards an MUS approach. By: Katie Spooner, CAFOD
- Setting up community management arrangements for MUS in Honduras. By: Stef Smits, IRC

13:00 – 14:00 Lunch

14:00 – 15:30 Block 3: Outcomes of the RWSN e-discussions on MUS

Presentation of synthesis and issues arising from the e-discussion.
- High level experiences of MUS services by: Stef Smits IRC
- Self-supply. By: John Butterworth IRC
- Equity and inclusion. By: Louisa Gosling (WaterAid) and Barbara van Koppen (IWMI)
- Sustainable services delivery. By: Vincent Casey (WaterAid)

Discussion on follow up actions after RWSN e-discussion: good practice, gaps, research needs

15:30 – 16:00 Tea Break

16:00 – 16:30 continuation of block 3 discussion

16:30 – 17:30 Block 4: MUS Book Launch
- MUS Book Launch: Scaling Up Multiple Use Services – Accountability in the water sector. By: Barbara van Koppen (IWMI) and Stef Smits (IRC)

6 June

09:00 – 11:00: Block 5: MUS and Water Security

This block will explore how MUS can contribute to water security at household and community level but also identify mechanisms that need to be in place to ensure sustainable use of water resources for MUS.

- MUS and water resource management in Burkina Faso. By: Lucien Damiba, WaterAid
- MUS and water resource management in Niger. By: Nega Bazezew, Oxfam GB
- MUS and water resources in Kenya. By: Simon Maddrell, Excellent Development

11:00 – 11:30 Tea Break

11:30 – 13:00: *Block 4*: MUS *and Water Security continued*

- Public health and social benefits of at-house water supplies. By: Barbara Evans, University of Leeds
- Discussion on role of MUS in delivering water security

13:00 – 14:00 Lunch

14:00 – 15:30: *Block 5*: *Tools, processes and resources for scaling up* MUS

- Introduction to tools and materials to scale up MUS. By: Mary Renwick, Winrock

15:30 – 16:30: *Block 6*: MUS *Group*

- Discussion on the MUS Group upcoming activities, including update by the Secretary of the Group

16.30: Closure and departure of participants

Annex 2: participants

Name	Organisation	Position
Rakotoarisoa Tiana Zo Andrianina	WA Madagascar	Project Officer
Stef Smits	IRC	Senior Programme Officer
Julia Boulenouar	Aguaconsult	WASH Advisor
Beatrice Mosello	ODI	Research Officer - Water Policy Programme
Odile Randriamananjara	WA Madagascar	Senior Programme Manager
Tidiane Diallo	WA West Africa Team	Regional Techical Advisor
Lucien Damiba	WA Burkina Faso	Regional Learning Center Coordinator
Barbara von Koppen	IWMI	Principal Researcher - Poverty, Gender & Water
Ian Neal	Excellent Development	Technical and Research Manager
Katie Spooner	CAFOD	Water and Environment Adviser
Nega Bazezew Legesse	Oxfam GB	PH Engineering Advisor
Jessica Chalmers	Winrock International	Consultant
Simon Maddrell	Excellent Development	Executive Director
Barbara Evans	Leeds University	Associate Professor
Louisa Gosling	WaterAid	Principles Manager
Vincent Casey	WaterAid	Technical Support Manager
Mary Renwick	Winrock International	
John Butterworth	IRC	
Claire Tomkins	PumpAid	Cdirector of Funraising
Michael Chuter	PumpAid	Head of Operations