

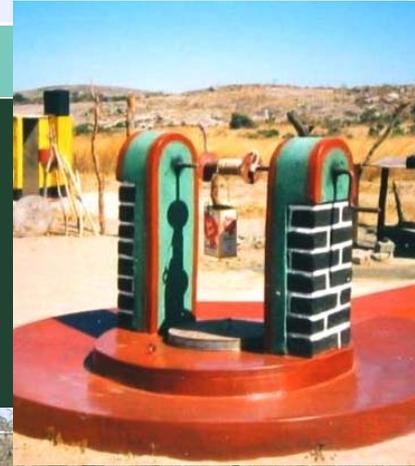


ACP EU Water Facility Project 2006-2011

Addressing water and sanitation needs of the rural poor in the context of HIV and AIDS in Zimbabwe

Guidelines for Planning for Water for Livelihoods

2010



PROJECT PARTNERS



Introduction

People do not only need water to meet their domestic needs, such as drinking, cooking and hygiene, but also for small-scale productive uses, such as gardening, livestock and home-based enterprises. These small-scale productive uses play an important role in the people's livelihoods, i.e. to the ways through which they generate income and access to cash, and to the production of food. In case of drought, this may in fact be the only source of food for people to recur to.

Despite the importance of these small-scale productive uses, in the past water services didn't take these uses into account. Water points weren't supposed to be used for productive purposes. Specific technical measures to accommodate these uses, such as cattle troughs, have not always been considered in planning and design. This limited people's livelihood options. In response to this, the multiple-use services (MUS) approach has been proposed. This is an approach to water services provision, which takes people's multiple water needs as starting point, and tries to meet these in an integrated way. In Zimbabwe, the term water for livelihoods has been used to describe a similar situation.

Over the last years, various organizations have taken such a livelihoods approach to water supply services. This has been obvious in areas with high water tables, where families themselves often use family wells for gardening. By adding lifting devices, such as rope pumps, the capacity of these wells to provide water for production has been enhanced. In drier areas, communal boreholes sometimes have been considered for the provision of water for cattle, or for the establishment of community gardens. However, often an ad hoc approach to this has been taken, with little clarity on the types of use to be supported, the way of targeting villages or individual families, or the way of sharing costs of facilities. This may result in some degree of inconsistency in addressing livelihoods between organizations, and even individual professionals, involved. There is need for addressing livelihoods and water for multiple uses in a more structured way in water projects.

This guideline aims to help addressing water for livelihoods in a structured way in different steps of the project cycle. It is geared towards DWSSC members, including NGOs, who work on the provision of water supply to rural communities. It does not aim to replace existing water supply guidelines. Rather, it provides tools and methods which can be used as complement to the existing guidelines, to specifically address livelihoods.

This guide consists of three parts:

- Part 1: conceptual framework. This part aims to define key concepts in relation to the provision of water for livelihoods
- Part 2: addressing water and livelihoods in the project cycle. In this part, an explanation is given of how to address livelihoods issues in each step of the project cycle
- Part 3: tools and methods. This part provides tools and methods that can be used in each of those steps. In addition, it provides references to further background material on the different tools.

Part 1: conceptual framework

Access to water and livelihoods

As mentioned in the introduction, people always use water for multiple purposes. Even if they have very little water, they would use part of that for some cattle or a patch of vegetables. Obviously, the relative size and significance of productive activities, depends on the level of access to water they have. With more water, more productive activities can be undertaken. Water points also need to be relatively close to the point where it will be used. If people spend a long time walking and queuing for water, they will only collect a small amount, and only be able to dedicate limited amounts to productive uses. The relation between access and the types of livelihoods that can be supported by communities are summarized in a water ladder (see figure 1).

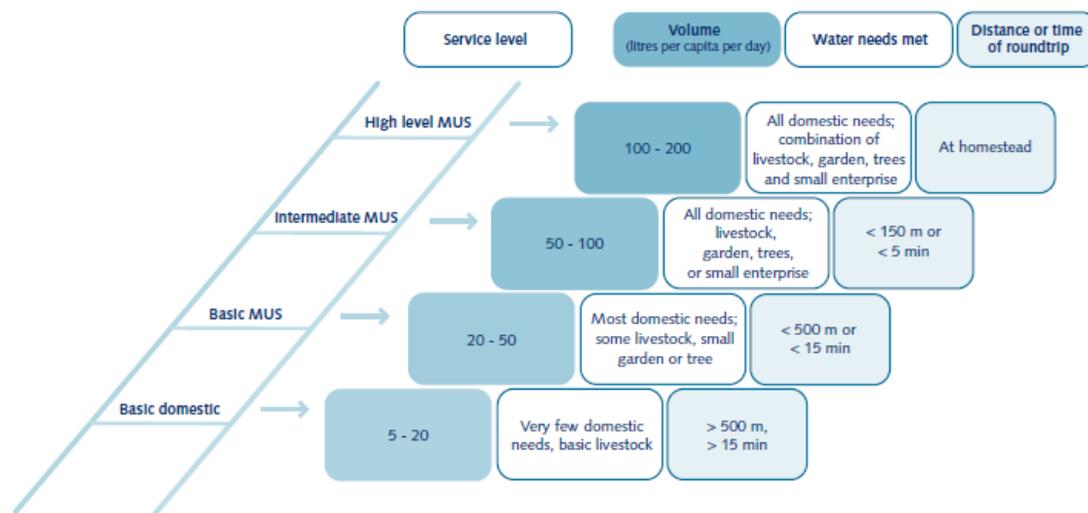


Figure 1: the water ladder (after Van Koppen et al., 2009)

This ladder shows that for a certain access level (as expressed in a volume and distance or time of a roundtrip), the types of water needs that can be met. The more water needs can be met, the more benefits can be obtained, in terms of food produced or income generated.

Water needs also depend on the type of livelihoods of users. If communities are mainly dedicated to cattle ranching, they may not need water for gardens. And there may be differences between large and small-scale users. The water needs of a large cattle rancher are different from a peasant farmer. But so are their possibilities to access water.

Providing access

Access is determined by four factors at the community level: water resources, technology, community institutions and financial arrangements. Let's look at each of them in more detail.

Water resources: The first factor affecting the level of access that can be provided is the water resources. If water is plentifully available, and easily extractable, then of course, it is easier to provide a higher level of access. The contrary is also true; if deep groundwater forms the only available water resource, the possibility to extract it can limit multiple use of water. It is also important to look at all the water resources in the community. Normally in rural water supply, one would only look at improved water sources. However, for many productive uses, that is not required. Yet, one should know what the other water sources are and how these can be used for productive purposes.

Technology: Water resources are closely related to technology. Groundwater obviously needs a borehole or a well, and lifting devices (pumps) to be able to extract water. The type of technology, in relation to the water source, often defines the level of access that can be obtained. Typically, a communal borehole with hand pump can provide some 20-25 litres per person per day, and the corresponding benefits (see above in the ladder). Family wells can provide much more, but may experience seasonal shortages. Different technology options can be linked to the water ladder, so that one can see what kinds of livelihoods can be supported by a certain technology. One shouldn't forget either that a level of access can be provided through a combination of technologies. For example, having a communal borehole and a community cattle dam will provide a total level of access that can meet both domestic and cattle needs.

Community institutions and regulations: As with any rural water supply services, also multiple-use services pose requirements for CBM. In fact, most aspects of CBM relevant for rural water supply are equally relevant for multiple-use services. However, those will not be repeated here. The provision of water for livelihoods, requires that agreements are made within the community on the use of water sources, for example, whether communal bush pumps can be used for cattle watering or not, or which sources are to be used for gardens. During project implementation a great deal of attention needs to be given to the establishment of such rules.

Financing arrangements and cost sharing. Provision of higher levels of access than domestic use only, normally would require higher upfront investments and operational costs. However, research has shown that these can be largely off-set by the benefits generated through multiple-use of water. In addition, livelihoods projects may have start-up investments outside the direct scope of the water sector, such as the costs of seeds or fencing. It needs to be clarified who is responsible for covering which parts of the costs. There may be organisational considerations in this; some organisations could cover both water and non-water costs. But also equity considerations come in. Investments in higher levels of service in one village, may go at the expense of investments in other villages. And big water users are in a better position to contribute own resources into water investments than poorer households. Hence, there must be clarity up to what level, investments are covered by outside agencies, like the RDC or NGOs, and where community contributions are expected. This also applies to the running and sustainability costs of investments. Ideally, there is coordination and consistency among sector agencies on the way they apply financing and cost sharing mechanisms.

Project cycle

As any other service, the development of multiple-use services would need to follow the project cycle in which needs are defined, plans are developed and implemented and results monitored. The figure below gives a typical project cycle for the WASH sector.

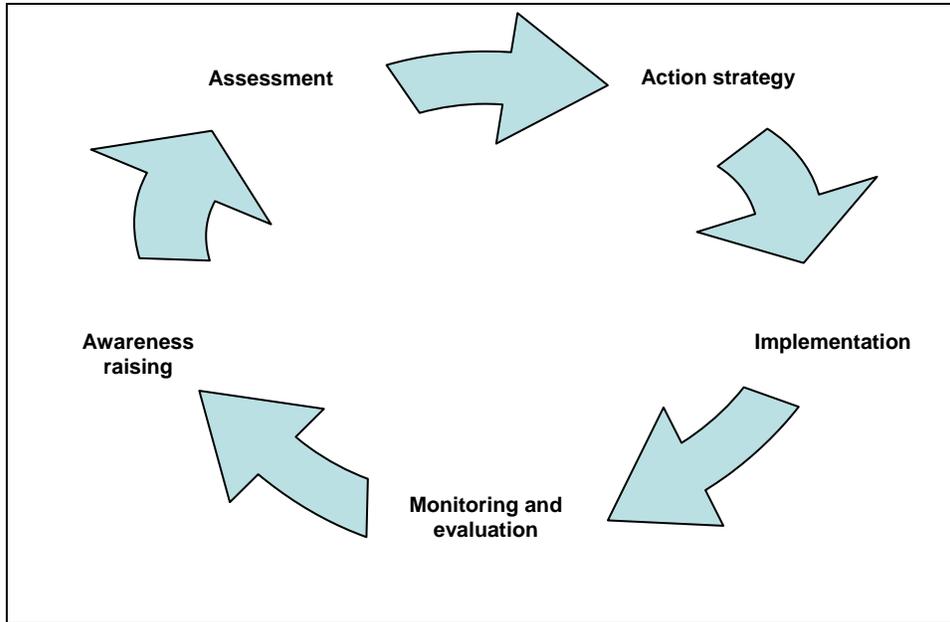


Figure 2: planning cycle for the WASH sector

Details of this generic planning cycle have been elaborated elsewhere (e.g. refer to the briefing note on planning). The main question is now to define how livelihoods issues need to be addressed in the different steps of this planning cycle. That is what will be done in the next section.

Part 2: addressing water and livelihoods in the project cycle

This part of the guidelines provides an approach for considering water and livelihoods in different steps of the project cycle for rural water services. It follows the steps of the cycle as given in the previous section. For each of the step the following is provided:

- Objective; what would be the objective of addressing livelihoods in the respective step
- Key issues, refers to the kinds of questions and issues related to livelihoods to be addressed in the respective step
- Tools that help clarifying the livelihoods-related issues. These are briefly mentioned, while the detailed tools are given in Part 3.

1. Awareness raising

Objective

This is the first stage in the project cycle, in which communities are made aware of the potential of water supply services, and where their interest in these is found out. The specific objective for this phase is to identify interest of the community in water for livelihoods, and the mutual expectations of the community and intervening agency in contributing to the development of such services.

Key issues

During this phase, insight needs to be obtained into the following key issues:

- Existing use of water for livelihoods activities
- Priority target groups within the community, particular of relevance when household options (such as rainwater harvesting or family wells) are considered
- Expectations of community members with regards to livelihood benefits of improved access to water

Tools

These issues can be addressed using the following tool:

- Community meeting (tool 1)
- Focus group discussion (FGD) (tool 2)

Note that both are tools that would normally be used anyway in an awareness raising stage. The livelihoods issues are merely additions to the agenda and questions to be addressed in such meeting.

As can be seen in Part 3, the content of the tools is very similar. It is recommended to administer both tools, when working in a community where different groups (e.g. men and women) have very different views on water and livelihoods, and where it is not easy to bring them together in a discussion in one meeting. In such cases, it is best to administer the FGD first separately for the different sub-groups before proceeding with a full community meeting.

2. Assessment

Objective

In case an interest in water for livelihoods is identified in the first step, the second step of assessment is one of digging deeper to get a full understanding of practices of use of water for livelihoods and potential to enhance those.

Key issues

During this phase, a detailed understanding needs to be obtained into the following key issues:

- Understanding of the main categories of livelihoods in the village; often in a community there are different groups with different livelihood strategies, e.g. small and large farmers, cattle ranchers, or people who live of off-farm employment. Besides, there may be better off and poorer or more vulnerable households. Understanding the main groups of users in the village is important, particularly in view of the next point.
- Understanding of current water use for these groups. These different groups have different current water use practices, as well as potential future water needs. This requires knowing issues, such as how much water is used, and for which purposes. Which potential uses remain unfulfilled?
- Understand current multiple water sources. Apart from knowing the uses, it is necessary to know the different sources of water. As mentioned, for water for productive uses, not necessarily only improved water sources are needed. Certain needs can be met from dams or other open water sources.
- Understand potential yield and use of future sources. In addition to knowing the current water sources, it is necessary to have an understanding of the potential of future sources. For example, if a borehole is envisaged, would it have a yield which would allow productive uses alongside domestic uses? Will family wells have the capacity to water gardens, year round?

Tools

Answers to these questions can be obtained using the following tools:

- User categorization (tool 3)
- Community mapping (tool 4)
- Village walk (tool 5)
- Village water resources assessment (tool 6)

Again, some of these tools could be used anyway in a community planning process. The next section only contains information on the aspects of these tools that are specific to livelihoods.

3. Action planning

Objective:

In this phase, the objective is to define and specify the way in which livelihoods can be supported through WASH interventions, and come to an agreement on those between the community and the intervening agency.

Key issues:

Reaching this objective will imply coming to an agreement on the following, amongst others:

- Water resources and their future use; i.e. there must be an agreement reached which water resources will be developed, and then used for what. For example, if a borehole is to be drilled, it must be agreed whether it will be for domestic use only, and if so, which other sources would be used for productive uses.
- To define technology options and their service level. This implies defining the technology options that will be implemented, and the service level these will provide. This is closely related to the previous point, as technologies and resources are closely linked.
- To define livelihoods that can be supported through these technologies. An agreement on the service levels that can be achieved with certain technologies means that an indication can be given of the livelihoods that can be supported through those.
- To define management arrangements. This is similar as in conventional rural water supply. However, there may be need to agree on specific arrangements, e.g. on the use of water sources for productive purposes.
- To define costs and cost sharing arrangements. An agreement must be reached on what is expected in terms of contribution of the community and of others to the infrastructure to be developed, both for the initial capital costs.
- To define support requirements from agencies outside WASH sector. For water to be used productively, also other inputs are required, e.g. seeds, fertilizers, fencing. Often a WASH project cannot provide those, but other agencies may. Communities themselves often would also need to invest in those. During this phase, agreement must be reached on how these inputs from outside the sector are to be provided and from where additional support may be sought.

A number of iterations may be needed in these steps. For example, a community may aspire for a high level of services, requiring certain technologies. However, if the implications for cost sharing would go beyond their means, they may in the end opt for a lower level of service. What is crucial in this phase, though, is strong participation of different groups in the community in decision making who need to balance their needs and requirement and their possibilities to contribute and manage different options.

Tools

Answers to these questions can be obtained using the following tools:

- Water resources and livelihoods matrix (tool 7)
- Technology selection using the water ladder (tool 8)
- Community meeting and focus group discussion (tool 1 and 2)

4. Implementation

Objective:

In this phase, the objective is to implement the plan according to the specifications developed during the previous phase.

Key issues:

Activities to be carried out in this phase include:

- Infrastructure development, i.e. implementing water infrastructure as agreed
- Setting up and training village structures, so they are able to manage water services, not only for domestic uses, but also for productive purposes
- Setting up financing and management arrangements, so as to be able to sustain the use of these services for livelihoods
- Developing links with agencies providing post-construction support

Again, many of these tasks would need to be done during any water project. Here we only specify those that are specific to water and livelihoods.

Tools:

During this phase the following tools can be used:

- Technology implementation manuals (tool 9)
- Training of water point committee, with specific attention to livelihoods (tool 10)

5. Monitoring and evaluation

Objective:

The objective of this phase is to monitor the use of facilities for water for livelihoods.

Key issues:

The objective of the project may have been to provide water for specific uses. During this phase, an assessment is done of:

- Actual use of water for livelihoods activities; which uses are actually being made of
- Reasons for deviations; these can be positive ones (more uses than originally planned for) or negative ones

Tools:

- Water resources and livelihoods matrix (tool 7)
- Community meeting (tool 1)
- Focus groups discussion (tool 2)

Part 3: tools and methods

This section presents tools and methods to be used in the different steps of the planning cycle. Please refer to section 2 to the step in which it is to be used. The tools that are found here:

- Tool 1: community meeting
- Tool 2: focus group discussion
- Tool 3: user categorization
- Tool 4: community mapping
- Tool 5: village walk
- Tool 6: village water resources assessment
- Tool 7: water resources and livelihoods matrix
- Tool 8: technology selection, using water ladder
- Tool 9: technology implementation manuals
- Tool 10: training of water point committee

It is recommended to prepare each of these tools to be administered before going into the field, in terms of elaborating flip-charts, materials, etc. Besides, it is suggested to prepare the interview and discussion questions in the local language.

Tool 1: Community meeting

Objective

The objective of this is to identify the interest and demand of the community for water for livelihoods, and to clarify expectations on what can be provided for.

Method

The community meeting consists of an open plenary discussion. The facilitator asks guiding questions, which can be discussed in plenary, or sub-groups, depending on the session. Where different opinions exist within a community, it is useful to explore these further. However, it is not necessary to come to final conclusions or consensus yet, as it is only the first step in the process. The responses from the community members are captured on flip charts, or otherwise, and read out aloud, so all attendants know what has been documented. Below a series of guiding questions are given. Note that the community meeting will probably address many other issues, not related to water for livelihoods. Those are not included here.

Guiding questions

The guiding questions provided here are suggestions for use in the awareness raising phase. The community meeting can also be used in other phases of the project cycle, often in combination with another tool. The guiding questions will have to be adjusted accordingly.

Current use of water for livelihoods

- What are the main livelihoods activities in this community? Are there different categories of livelihoods in this village?
- Is water used as input for these? If so, what water sources are used for those?
- What are the current experiences with those? Any limitations in that?

Interest and demand for water for livelihoods

- If access to water for livelihoods activities were to be enhanced, what would be your priority? Which kinds of sources would you consider exploiting? And for which uses?
- Who would be the beneficiaries of that? Are there (sub) groups in the community who would benefit more or less?
- What are current limitations for the community in exploiting these resources more?
- Would the community, and specifically the final beneficiaries, be willing to contribute to such development?

Expectations

- What kind of final benefit (e.g. in terms of time saving, health, production, etc) would you expect after having access to water for livelihoods?
- What would you expect of the project to contribute to that? What would be your own contribution?

Tool 2: Focus group discussion

Objective

The objective of this is to identify the interest and demand of specific groups in the community for water for livelihoods, and to clarify expectations on what can be provided for.

Method

The focus group discussion (FGD) is similar to the plenary community meeting in terms of its scope and guiding questions. However, it is carried out with smaller sub-groups from within the community, for example with women or men only, or with specific groups of users. Normally, a FGD wouldn't consist of more than 10-15 persons. These groups need to be pre-identified before organising them. Depending on the context, an FGD can be done before a full community meeting, if it is expected that large differences would exist within the community. Or, it can be held after such a meeting, when during the meeting large differences within the community are identified in terms of demand and interest within the community.

The FGD is lead by a facilitator who asks guiding questions, and ensures participation from the attendants. The responses from the community members are captured on flip charts, or otherwise. Below a series of guiding questions are given. Note that the community meeting will probably address many other issues, not related to water for livelihoods. Those are not included here.

Guiding questions

The guiding questions provided here are suggestions for use in the awareness raising phase. The FGD can also be used in other phases of the project cycle, often in combination with another tool. The guiding questions will have to be adjusted accordingly.

Current use of water for livelihoods

- What are the main livelihoods activities for you as group within the community?
- Is water used as input for these? If so, what water sources are used for those?
- What are the current experiences with those? Any limitations in that?

Interest and demand for water for livelihoods

- If access to water for livelihoods activities were to be enhanced, what would be your priority? Which kinds of sources would you consider exploiting? And for which uses?
- Are there other (sub) groups in the community who would benefit more or less?
- What are current limitations for you in exploiting these resources more?
- Would you be willing to contribute to such development?

Expectations

- What kind of final benefit (e.g. in terms of time saving, health, production, etc) would you expect after having access to water for livelihoods?

- What would you expect of the project to contribute to that? What would be your own contribution?

Tool 3: User categorization

Objective

The objective of this tool is to identify the main categories of users in the community and their main livelihoods strategies, and to identify the role of water in these.

Method

This tool consists of two steps:

- 1) identification of user categories
- 2) Specifying characteristics of each user group with respect to livelihoods and the role of water in these.

The exercise is done during a focus group discussion with community leaders, guided by a facilitator.

It must be noted that this is not always an easy tool to administer, as communities may see a benefit of being categorised as one group or another, as some other organisations (e.g. ones providing food support) use similar tools. Therefore it must be emphasised that this is not a tool to identify individuals or families as belonging to one category or another, but to identify in broad terms which categories are present in a village.

For the first step, the community is asked to answer the following questions:

- Which livelihoods strategies are employed here?
- What are the different socio-economic living conditions in this community, using local criteria?
- Can you make a categorization out of these?

While the community members answer, the facilitator writes these categories on a flip chart. Typical categories would be small and larger farmers, those that produce for the market and those that only produce for home consumption, cattle owners, people living off cash from elsewhere (pensioners, people living of remittances), employees, etc. But also, poor, better off and rich may be categories. It may be useful to combine some of these. Note that in this step, it is important to highlight that this exercise is not to “place individuals” in a certain category, but rather to get a general idea of the different user categories existing in a village.

In the second step, community members are asked to provide a further characterisation of each group by going through the following questions:

- For each of the categories, what are the key characteristics defining their social and economic conditions, in terms of, for example, housing conditions, land ownership or access to cash? What local criteria exist to differentiate between them?
- For each of the categories, what are their characteristics in terms of access to and use of water? Which sources do they use, and for what purpose?
- For each of the categories, what would be their future water needs? And what is their own capacity to contribute to developing those?

The facilitator writes these characteristics under each user category, coming to a final matrix. An example of such a (theoretical) matrix is given below. Note that the facilitator should not present this matrix upfront, but let the community identify the categories.

Group 1: poor subsistence farmer	Group 2: subsistence farmer	Group 3: families living off cash from elsewhere	Group 4: farmer
<ul style="list-style-type: none"> • Grows rain fed crops (maize) for home consumption as main source of food. Doesn't sell anything of the crop • Doesn't have an additional income • Has a vegetable plot, irrigated from wells 	<ul style="list-style-type: none"> • Grows rain fed crops (maize) for home consumption as main source of food. Sells part of the crop • May have seasonal additional income, from migrant work • Has a vegetable plot, irrigated from wells • Has some cows (less than 5) 	<ul style="list-style-type: none"> • Live in the centre of the village • Live of remittances or of pension • Doesn't grow crops • Only have a small plot next to the house, mainly with flowers and few vegetables • May have some chickens • Brick house 	<ul style="list-style-type: none"> • Grows maize for sale to the market • Has more than 10 cows • Brick house

Tool 4: Community Mapping

Objective

The objective of this exercise is to obtain an overview of water resources and infrastructure in the community, and sites where water is used

Method

This exercise is done with the whole community, but split up in two groups, e.g. men and women, or any other grouping deemed relevant. It consists of the following steps

Step 1: the facilitator invites both groups to draw a map of the community and its surroundings, identifying:

- Reference points (roads, buildings, etc)
- Water resources being used by the community
- Water infrastructure, such as wells, dams, boreholes, even ones that are not being used anymore
- Sites where water is being used, e.g. homesteads, gardens, cattle dips, etc
- If possible, identifying where different user categories are living

Step 2: analysis. In this step, the group members analyse the implications of this map, guided by questions from the facilitator: including:

- What are your observations with respect to availability of water resources?
- What are your observations with respect to the use of these resources?
- Is there a relation between water sources, infrastructure and the location of users?
- What are implications for development of further infrastructure for multiple uses?

Step 3: verifying the community map

- Both groups present their map and analysis results to each other. Based on this, one final map will be made. In order to do so, where the two groups coincide that will be taken as an agreement. Where the two groups have identified different objects or points of analysis, these will be discussed until agreement is reached. If no agreement is reached, this is left for the final step, the village walk.
- The verification continues then in the village walk (Tool 5)

Tool 5: Village Walk

Objective

The objective of the village walk is to get a physical impression of available water resources and their use in the community.

Method

After having done the community mapping, the facilitator may have identified specific areas of interest, such as areas where the water resources are, or where productive activities take place. S/he then selects a path to walk through the community to carry out a physical observation of these points. It would be most relevant to follow a directed walk would be most relevant, past the identified spot. The walk can be carried out with a group of representatives from the community who can explain relevant aspects of their community.

During the walk, the facilitators will need to note down the following:

- Physical observations regarding water resources, infrastructure and water use. Qualitative and quantitative information on these, can be added to the developed map, or captured in the table of the village water resources assessment (see tool 6)
- Informal interviews with people encountered on the way. In many cases, it is useful to have informal talks with households that are visited, or persons accompanying the walk to further dig into examples of how people access and use water.
- Adding information missing from the map.

Tool 6: Village water resources assessment

Objective:

The objective of this exercise is to make a structured overview of quantitative and qualitative information on available water resources, water infrastructure, its current and potential future use.

Method:

The village water resources management is a method through which the, often limited, quantitative information is put together alongside qualitative information.

It is an activity undertaken by the facilitator alone, thereby drawing upon the results of participatory exercises done in the village mapping (tool 4) and village walk (talk 5), and additional information from key informants. Where needed additional secondary data may be obtained from other agencies, such as ZINWA or DDF. It is suggested to start applying the tool in the field but completing it with information from elsewhere when back in the office.

The method consists of the following steps:

- Draw a table with the main water resources identified in the previous participatory exercises. Add as much quantitative and qualitative information on these resources as available.
- Add two columns identifying the infrastructure linked to the water resource and the main uses of these water resources. Also include all available quantitative and qualitative information on both infrastructure and water use. Add untapped resources and potential infrastructure.
- Complement information from secondary sources when back in the office for each of the cells, where available.
- Carry out a desk-top analysis with the group of technicians and facilitators of the DWSSC, focusing on questions such as:
 - o Which (potential and current) uses are insufficiently met?
 - o What is the overall infrastructure status to meet the identified water uses and needs? Is there scope or need to develop additional infrastructure.
 - o What is the status of existing water resources? What are possible untapped resources?

The outcomes of the analysis can serve as input into the water resources and livelihoods matrix for planning.

Below an example is given of a blank and a (theoretical) filled-out table:

Water resource	Infrastructure linked to it	Use

Water resource	Infrastructure linked to it	Use
Dam (no quantitative information available)	Open canal – is in state of need of repair	Irrigation of gardens Seems largely underused. To check with ZINWA on flow of irrigation canal
	Hosepipes. As the open canal needs repairs, farmers have put in hosepipes to irrigate their gardens	Irrigation of gardens for some 20 farmers
Pond – dries up in winter	None	Goats
Groundwater – yield unknown, but to be obtained from DDF	Borehole	Used by around 500 persons at an estimated 20 l/p/d

Tool 7: Water resources and livelihoods matrix

Objectives

The objective of this tool is to identify technology (resources) options and the service level these will provide.

Method

- The facilitator gives the participants pictures of different water sources and let them identify what these sources are. These pictures are provided in the standard set of PHHE tools.
- From the sources identified, participants identify which livelihood activity can be supported by these. These are captured in a table as shown below.
- Analysis; discuss with the community the results of the exercise, focusing on questions such as:
 - o Which livelihoods activities are currently met and unmet? Which groups in the community are mostly affected by this? what interest exists in further developing these livelihoods needs?
 - o Which water resources would need further development to undertake the identified livelihoods activities?
 - o What are the implications for water infrastructure to develop those resources?

An example of a filled-out table is given below

Water Resource	Livelihoods activity				
	Drinking and cooking	Washing	Gardening	Small livestock	Etc
Dam			✓	✓	
Borehole	✓	✓		✓	
Communal well	✓				
Family well	✓		✓		
River/Stream		✓			
Spring					
Etc					

Tool 8: Technology selection, using the water ladder

Objective

The objective of this tool is to facilitate the selection of technology options, considering the needs that technologies can fulfil and the requirements these pose.

Method

The starting point of this is the outcome of tool 6 and 7 – water resources assessment and the water resources and livelihoods matrix. These should have given insight in the needs and demands for water for livelihoods, as well as the water resources options available to meet these needs. After that, the group of facilitators and technicians of the DWSSC identifies the (combination of) resources and technologies that can be used to meet each of the identified water needs. The water ladder, provided in the introductory chapter can act as guide to show which type of technology can provide which use. The technicians elaborate these options further into detailed technology proposals, including costs and benefits of each option. Also funding options to provide the options should be explored here.

After this the facilitator goes back to the village, to propose and discuss the identified technology options. In this, the facilitator indicates what the options are, what their advantages and disadvantages are, and what the implications for community contribution would be. After this, a plenary discussion is held whether these contributions can be met, and if not whether then the ambition level would need to be reduced. For example, a community may identify it wants field scale irrigation and would need a motorised pump for that. However, if this would require a contribution of the community beyond their means, e.g. to pay for diesel, it should reduce its ambition. Several iterations may be needed.

The outcome of this exercise is an agreement on:

- The livelihoods benefits that can be expected
- The combinations of technologies that would bring those
- The contributions of communities to these

Tool 9: Technology implementation manuals

Objective:

To support the correct implementation and construction of different technology options

Method

This is not a tool as the other ones. Rather, these are references to other existing manuals that describe the details of implementing certain technologies. Water for livelihoods will require use of technologies, some of which are not known to communities, builders or even agencies, such as rope pumps, drip kits, rainwater harvesters, etc. This is a list of references to existing material that needs to be used during project implementation

Tool 10: Training of Water Point Committee

Objective:

The objective of this is to train the water point committee on their roles and responsibilities. Whereas it is realised that this is a much broader training, here we only focus on the role and responsibilities with respect to use of water for livelihoods.

Method:

This training is normally done in a focus group discussion session. The facilitator exposes certain issues, after which the group discusses or carries out exercises. Similarly, this would be done for livelihoods. Below is a list of issues to be discussed:

Issues for discussion:

- Control of use of water from water points for different purposes. The WPC needs to know which uses of water from a water point are permitted, and which ones not. For example, can water be taken from a bush pump for a private garden or not. Often this is locally specific.
- Priority setting in case of break-down or shortage. Even though certain uses may be foreseen in planning, it can be that water is not always available. For example, a borehole may provide a community garden. But sometime, the water table drops too far and only enough water is available for domestic uses. The WPC needs then to regulate how the limited amount of water is being used.
- Linkages with other institutions. For many livelihood activities, it may be necessary to draw upon support from other institutions, such as AREX. The WPC can play a key role in linking with such institutions. It is important for the WPC to know its role in this.