

Chapter 7

PREPP tools

7.1 The water ladder

The water ladder is a set of drawings, (between six and 10) each showing a different water source, point or service option/level depending on its intended purpose. The drawings are presented in random order without explanation. The group is asked to sort them into an order that illustrates what they consider to be 'poor', 'acceptable' and 'good' existing water supply, or alternatively to prioritize preferences for new service options. The 'ladder' is created on the floor or a flat surface so that the drawings can be easily moved to create different ladders until a consensus is reached.

In PREPP the water ladder specifically looks at **existing water sources and practices** that are used in the local area. Each PREPP water ladder **MUST** reflect the local situation. Deciding which sources to represent will require research and local knowledge of existing water sources and practices in low-income areas. Below in Figure 7.1 is an example of an existing source water ladder from Uganda. Here photographs have been taken so that the artist can then make a series of drawings from these.

7.2 Voting

Two types of voting are used in PREPP - 'Bean or pebble' voting and 'pocket chart' voting. During the PREPP focus group voting is used in conjunction with the water ladder and costed option ranking. The results of individual and group votes comprise the main quantitative data.

Bean or pebble voting involves each person having a designated number of counters to place against an option, usually on a one person - one vote basis. The voting in this system is open for all to see and people usually vote simultaneously. Pocket chart voting is a system of secret voting. Each person takes a turn at placing his or her counter inside a pocket which is usually placed behind an option. The votes are counted in public after the last person has placed his/her vote.

7.3 Costed option ranking (COR)

Costed option ranking or 'COR' is a simple tool designed to determine a consumer's relative preferences for different water service options. The tool takes consumers through a participatory cost-benefit analysis exercise that imitates the buying decision process described earlier. COR uses simplified elements of willingness to pay surveys, in particular ranking against associated price.



Bicycle vendor



Protected spring



'Bend and fetch' (puddle water)



Traditional shallow well

Figure 7.1. Ugandan water ladder photos

Box 7.1. Water ladder development

The first water ladder was developed for use with rural communities to:

- assist the process of upgrading current supply;
- understand perceptions of 'adequate' supply;
- promote the concept of 'incremental steps' to improve supply;
- promote community ownership and management;
- assist a community to make realistic decisions concerning its water supply;
- discuss the merits and impact of different technology options; and
- link water to community health and environment issues.

Water ladders are always situation specific. For example the ladder developed for use with Zambian communities was found to be inappropriate for use with Zimbabwean communities. This is mainly to do with local practice associated with traditional source collection, technology options and perceptions of the picture representing 'us'. Drawings used in the Caprivi Region of Namibia were found to be inappropriate for use with Namibian communities in the Erongo Region. This was due to differences in culture, dress and technology practices. Drawings used in Southern Asia cannot be used without adaptation in Africa or Central Asia. This means that all drawings must be pre-tested and adapted to suit the environment in which they are being used.

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Like the water ladder, COR is based on a series of drawings, this time on service options that the utility is proposing to market to a particular group of consumers. However unlike the water ladder the engineer first presents each drawing to the group describing the service option and its cost implications. These options are visually compared and discussed. Some are familiar while others may be new. The preferred existing options that emerge from the previous water ladder exercise are included with the list of proposed options in order to reveal the relative demand for existing and proposed options. The drawings are then given to the group to rank in order of preference. This participatory ranking exercise takes a number of factors into account:

- the price to receive the service option by unit, which is usually based on 20 litres or other convenient measure;
- the management implications to the individual or community;
- the technology type;
- the frequency of the supply (hours per day), ease of access and reliability;
- the perceived ownership of the proposed service option ('communal', 'household', 'public', 'shared')
- peer and individual influence; and
- the 'value' of the proposed service option to the consumer when compared to their preferred existing water sources and practices (taken from the earlier completed water ladder).

Note that the quoted price of each service option presented should correspond with the likely charge for that service option assuming it is to be provided in the near future. So the costing could be based on the expected water tariff and connection charge (where appropriate) that is likely to be charged in the next one or two years. Figure 7.2 shows an engineer facilitating discussing of service options for costed option ranking (COR) in Kampala and Box 7.2 highlights the benefits of using COR.

Refer to Figure 7.4 for examples of drawings used for a costed option ranking exercise in Kampala. Note that in some cases more than one drawing is used for each option to convey the process of that service option, for example water vending.

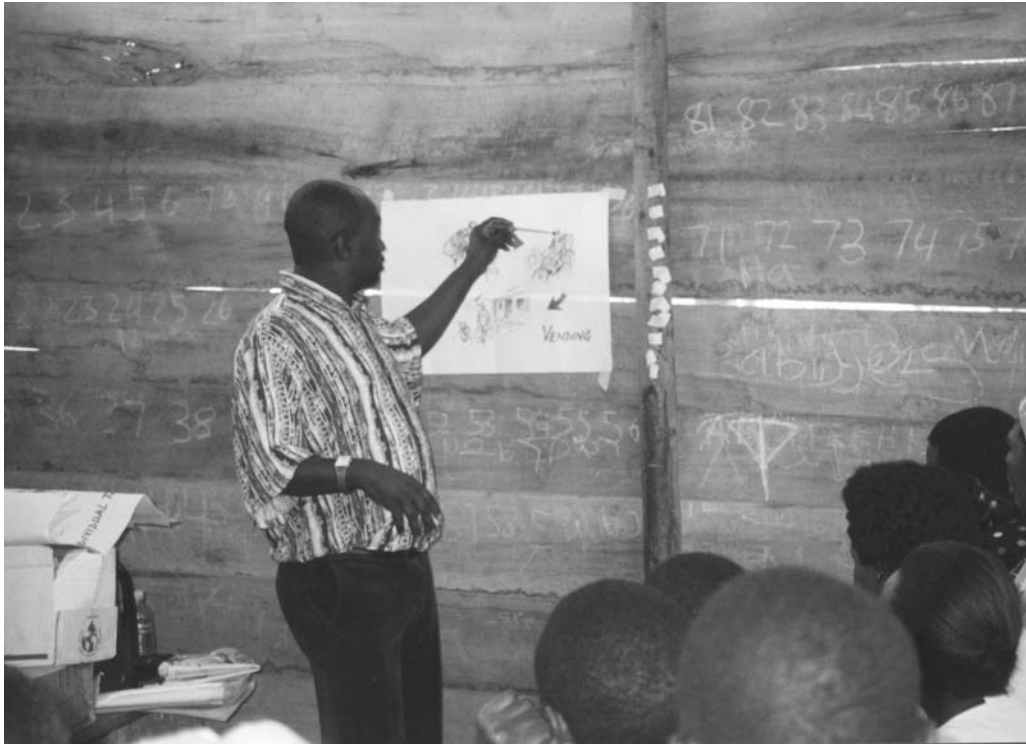


Figure 7.2. Engineer facilitating COR, Kampala Uganda

Box 7.2. Benefits of using Costed Option Ranking

- The utility can determine consumer preferences for different potential service options that it is considering offering based on realistic water charges;
- The utility can improve its understanding of user preferences for their existing sources and coping strategies;
- The utility can improve its relationship with existing and potential customers;
- The ranking exercise includes costs - which are a key determining factor in people's choices for services. The tool is less complicated to use than other methods, for example Willingness to Pay Surveys.
- PREPP is participatory throughout and this provokes a great deal of debate with every participant offering an opinion of the pros and cons of the proposed options.
- The use of visual aids (pictures) to present water supply options greatly simplified the complex work of explaining to participants of varied literacy levels.
- The exercises enable participants to be confident and women especially are able to express opinions and make decisions on improved water supply options.
- The combination of individual and group action in PREPP is very successful in soliciting views of those who cannot speak during group meetings.

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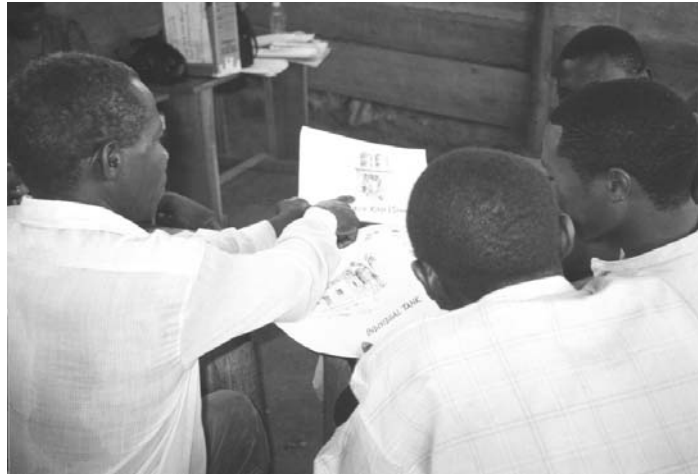


Figure 7.3. Men and women discussing service options (COR)

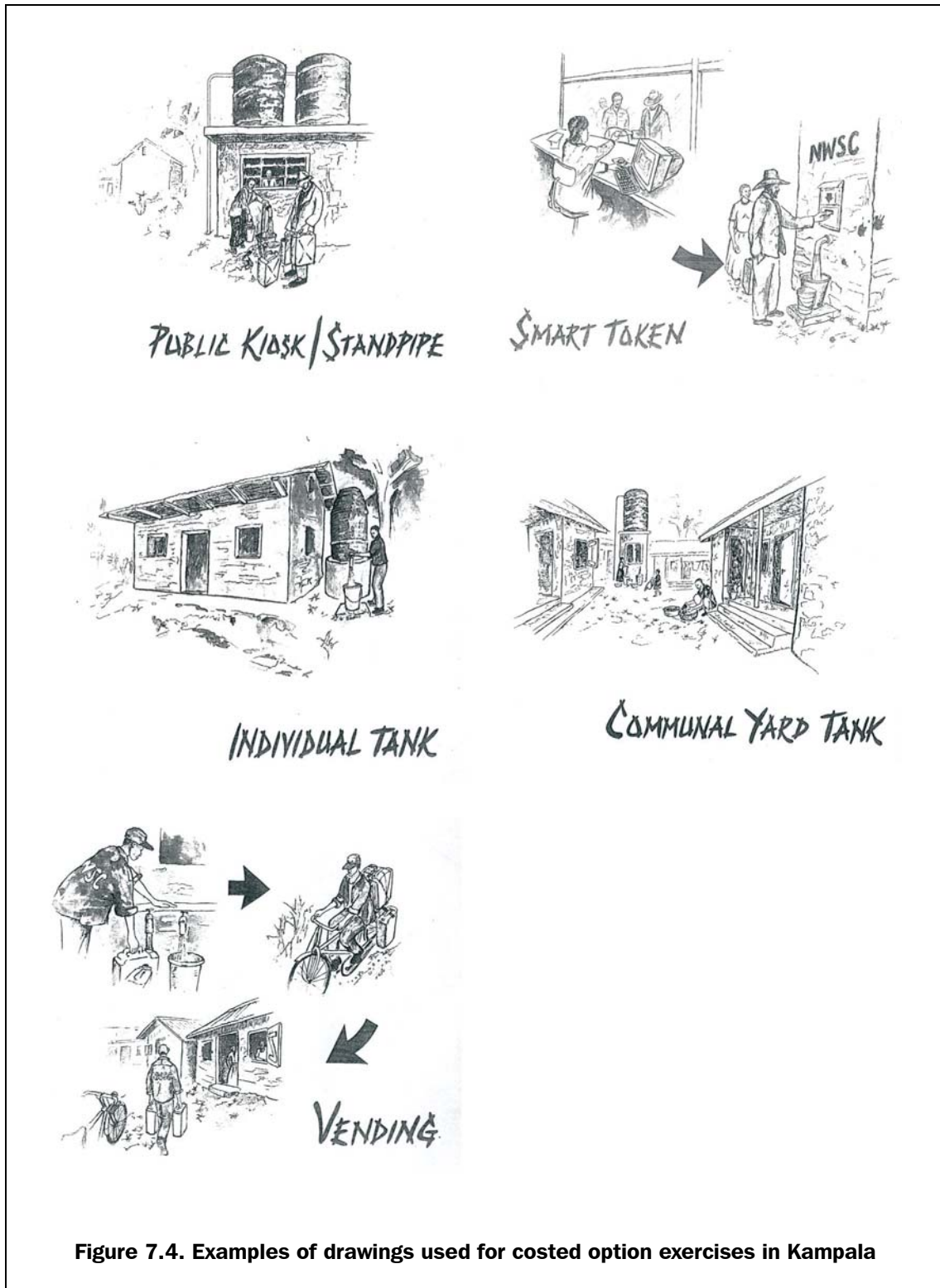


Figure 7.4. Examples of drawings used for costed option exercises in Kampala