

## 11.2 Annex 2: Example WTP survey form

### Opening statement to the bidding game

(To the enumerator: Please read this statement slowly to the respondent)

As you may know, there is a growing deficiency of clean water not only in Kenya, but in the whole world. The available surface water is often polluted and not suitable for human consumption in its present form. Water from the Indian Ocean is salty and would require a lot of money to treat it and make it suitable for human consumption. NWCPD spends a lot of money on electricity, chemicals, pipes, pumps, motors, and other equipment including staff salaries in order to purify the water, store it and transport it to your homes with pipes. Water utilities such as NWCPD should be able to cover all operation and maintenance costs with some money left to finance improvements in water supply. In the past NWCPD has not had enough funds to be able to cover all operating and maintenance costs or even to finance improvements in water supply. This is the main reason why water supply to your house may not be reliable, sometimes resulting in serious water shortages in Mombasa and the surrounding coastal areas.

I will describe the nature of different types of possible service options to you and then ask whether you would like to have the services at a suggested price. During this procedure you shall have to think about the advantages of each type of water service to your household.

NWCPD has the intention of ensuring that each household should pay for water according to the type of service they receive and the amount of water used. Those who use more should pay more. Furthermore NWCPD water tariff entails that those households that use most water pay more per quantity of water than those who use less.

Before NWCPD carries out any improvements to the water services, it is important to know what **type** of water services people want, and **how much money** people are willing to pay for each type of improved service. With this information, NWCPD can then plan to give people the type of water service that the people want and are willing to pay for.

Now I am going to ask you some questions to learn whether your household would be willing to pay more money in order to improve the water supply in Mombasa. It is important that you answer questions, as truthfully as you can so that we can know the amount you are willing to pay for an improved supply of water to your household.

### ***Bidding game***

#### **To the enumerator:**

The bidding game is targeted to three types of respondents, depending on the type and location of the house they reside in (market segment). Please decide in which category (market segment) the respondent belongs. Then under each category several service levels have been specified, starting with the highest service level.

Please guide the respondent through the bidding game, starting with the highest set price. When the respondent chooses a price please tick in the box against that bid, and stop the exercise. Otherwise go through the various service levels in the respondents' category.

ANNEXES

*Category I: Individual house connection - has three service levels but is not included here.*

*Category II: Those living in shared buildings in formal (planned) areas. This includes swahili houses, 1, 2 or 3 roomed dwellings without internal plumbing located in planned areas of the city)*

*(For a respondent who lives in a shared building e.g. Swahili house, constructed of permanent or semi-permanent building materials, and located in a formally planned area. The building does not have an individual water connection with internal plumbing, neither does it have capacity for a water connection with internal plumbing in the future. Instead residents will most likely have a yard tap serving a number of families who live in the shared building).*

**Service Level 4**

Assume that you will be receiving clean piped water through a shared yard connection with adequate pressure providing enough water at the tap in the compound of the house where you stay. Assume that the water is available continuously for 24 hours every day. Assume that your household is able to obtain enough water from the tap in the compound any time of the day or night. Whenever you wish you can also carry out plumbing in your house and extend the water inside your house.

(17) Would you be willing to contribute KSh.2500/- per month towards the water bills for the tap?

If 'Yes' - Willingness to Pay is KSh.2500/- .....END

If 'No' go to (18)

(18) Would you be willing to contribute KSh.2000/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.2000/- .....END

If 'No' go to (19)

(19) Would you be willing to contribute KSh.1800/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.1800/- .....END

If 'No' go to (20)

(20) Would you be willing to contribute KSh.1600/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.1600/- .....END

If "No" go to (21)

(21) Would you be willing to contribute KSh.1400/- per month towards the water bill for the tap?

If "Yes" - Willingness to pay is KSh.1400/.....END

If "No" go to (22)

(22) Would you be willing to contribute KSh1200/- per month towards the water bill for the tap?

If "Yes" - Willingness to pay is KSh.1200/- .....END

If "No", go to (23)

(23) What is the maximum amount of money per month you are willing to contribute towards the water bill for the tap in your compound in order to get a continuous water supply at good pressure 24 hours every day?

I would be willing to pay a maximum of KSh.....per month for water service level 4.

All respondents in this market segment whose willingness to pay is less than KSh.1200/- should be requested to answer questions under SERVICE LEVEL 5 below.

**Now go to the Next Service Option**

*Service Level 5*

Assume that you will be receiving clean piped water through a shared yard connection providing enough water at the tap in the compound of the house where you stay. Assume that NWPC has provided a storage tank next to the existing connection that you share with your neighbours and that the tank receives and stores water so that you can draw the water from your yard connection continuously even during the rationing hours. Assume that because of this storage tank, your household is able to obtain enough water from the tap in the compound any time of the day or night. Whenever you wish you can also carry out plumbing in your house and extend the water inside your house.

(17) Would you be willing to contribute KSh.2500/- per month towards the water bills for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.2500/- .....END

If 'No' go to (18)

(18) Would you be willing to contribute KSh.2000/- per month towards the water bill for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh2000/- .....END

If 'No' go to (19)

(19) Would you be willing to contribute KSh.1800/- per month towards the water bill for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.1800/- .....END

If 'No' go to (20)

(20) Would you be willing to contribute KSh.1,600/- per month towards the water bill for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.1600/- .....END

If "No" go to (21)

(21) Would you be willing to contribute KSh.1400/- per month towards the water bill for the tap and the storage tank?

If "Yes" - Willingness to pay is KSh.1400/.....END

If "No" go to (22)

(22) Would you be willing to contribute KSh1200/- per month towards the water bill for the tap and the storage tank?

If "Yes" - Willingness to pay is KSh.1200/- .....END

If "No", go to (23)

(23) What is the maximum amount of money per month you are willing to contribute towards the water bill for the tap and the storage tank in your compound that will enable you to get a continuous water supply at any time of the day or night?

I would be willing to pay a maximum of KSh.....per month for water service level 5.

**Now go to the Next Service Option.**

*Service Level 6*

Assume that you will be receiving clean piped water through a shared yard connection providing enough water at the tap in the compound of the house where you stay. Assume that the water is supplied on rationing basis, but with good pressure, for 12 hours every day. Assume that your household is able to obtain enough water from the tap in the compound. Whenever you wish you can also carry out plumbing in your house and extend the water inside your house.

(24) Would you be willing to contribute KSh.1200/- per month towards the water bills for the tap?

If 'Yes' - Willingness to Pay is KSh.1200/- .....END

If 'No' go to (25)

(25) Would you be willing to contribute KSh.1000/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.1000/-.....END

If 'No' go to (26)

(26) Would you be willing to contribute KSh.800/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.800/-.....END

If 'No' go to (27)

(27) What is the maximum amount of money per month you are willing to contribute towards the water bill for the tap in order to receive 12 hours of water supply every day (service level 5)?

I would be willing to pay a maximum of KSh.....per month for water service level 6.

*All respondents in this market segment whose willingness to pay for service level (5) is less than KSh.800/- per month should be requested to answer questions under SERVICE LEVEL 7 below. These are the respondents whose answer to question number 27 is less than KSh.800/- per month.*

*Service Level 7*

Assume that you will be receiving clean piped water through a shared yard connection providing enough water at the tap in the compound of the house where you live. Assume that the water is supplied on rationing basis, in the morning and evening for a minimum period of 4 hours every day and that your household is able to obtain water from the tap in the compound only in the mornings and evenings for a total of 4 hours. Whenever you wish you can also carry out plumbing in your house and extend the water inside your house.

(28) Would you be willing to contribute KSh800/- per month towards the water bills for the tap?

If 'Yes' - Willingness to Pay is KSh800/- .....END

If 'No' go to (29)

(29) Would you be willing to contribute KSh700/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh700/- .....END

If 'No' go to (30)

(30) Would you be willing to contribute KSh600/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh600/- .....END

If 'No' go to (31)

(31) Would you be willing to contribute KSh500/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh500/- .....END

If "No" go to (32)

(32) What is the maximum amount of money per month are you willing to contribute towards the water bill for the tap in order to receive 4 hours of water supply every day at your compound (service level 6)? (Remember that you may also extend the water to your house when you carry out plumbing inside your house).

I would be willing to pay a maximum of KSh.....per month for water service level 7.

*Category III: People living in informal settlements*

*(For a respondent who lives in a shared house or individual shack, constructed of semi-permanent or temporary building materials, and located in an informal area or slum. such a building will not have internal plumbing. space for a yard tap and a storage tank might be found if the slum is upgraded.*

*Service Level 8*

Assume that you will be receiving clean piped water through a shared yard connection (shared by about 10 dwellings) providing enough water at the tap in the compound of the dwelling where you stay. Assume that NWCPC has provided a pipeline, a storage tank, and a shared connection next to your dwelling. Assume that you are sharing the connection and the storage tank with your neighbours and that the tank stores water so that you can draw the water from your yard connection continuously even during the rationing hours. Assume that because of this storage tank, your household is able to obtain enough water from the tap in the compound for 18 to 24 hours a day.

(33) Would you be willing to contribute KSh.2500/- per month towards the water bills for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.2500/- .....END

If 'No' go to (34)

(34) Would you be willing to contribute KSh.2,000/- per month towards the water bill for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.2000/- .....END

If 'No' go to (35)

(35) Would you be willing to contribute KSh.1800/- per month towards the water bill for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.1800/- .....END

If 'No' go to (36)

(36) Would you be willing to contribute KSh.1600/- per month towards the water bill for the tap and the storage tank?

If 'Yes' - Willingness to Pay is KSh.1600/- .....END

If "No" go to (37)

(37) Would you be willing to contribute KSh.1400/- per month towards the water bill for the tap and the storage tank?

If "Yes" - Willingness to pay is KSh.1400/.....END

If "No" go to (38)

(38) Would you be willing to contribute KSh1200/- per month towards the water bill for the tap and the storage tank?

If "Yes" - Willingness to pay is KSh.1200/- .....END

If "No", go to (39)

(39) What is the maximum amount of money per month you are willing to contribute towards the water bill for the tap and the storage tank in your compound that will enable you to get a continuous water supply at any time of the day or night?

I would be willing to pay a maximum of KSh.....per month for water service level 8.

All respondents in this market segment whose willingness to pay is less than KSh.1200/- should be requested to answer questions under SERVICE LEVEL 9 below.

*Now go to the Next Service Option for respondents whose willingness to pay is less than KSh.1200 per month*

#### Service Level 9

Assume that you will be receiving clean piped water through a shared yard connection (shared by about 10 dwellings) providing water at the tap in the compound of the dwelling where you stay. Assume that NWCPC does not provide a storage tank next to the connection. Assume that the water is supplied on rationing basis for about 12 hours every day. Assume that your household obtains water from the tap in the compound, that you share with about 10 other dwellings.

(40) Would you be willing to contribute KSh.1200/- per month towards the water bills for the tap?

If 'Yes' - Willingness to Pay is KSh.1200/- .....END

If 'No' go to (41)

(41) Would you be willing to contribute KSh.1000/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.1000/- .....END

If 'No' go to (42)

(42) Would you be willing to contribute KSh.800/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh.800/- .....END

If 'No' go to (43)

(43) What is the maximum amount of money per month you are willing to contribute towards the water bill for the tap in order to receive 12 hours of water supply every day (service level 9)?

I would be willing to pay a maximum of KSh.....per month for water service level (9).

**All respondents in this market segment whose willingness to pay for service level (9) is less than KSh.800/- per month should be requested to answer questions under SERVICE LEVEL 10 below. These are the respondents whose answer to question number 43 is less than KSh.800/- per month.**

Service Level 10 (Shared yard connection without tank)

Assume that you will be receiving clean piped water through a shared yard connection (shared by about 10 dwellings) providing water at the tap in the compound of the house where you live. Assume that NWCP does not provide a storage tank next to the connection. Assume that the water is provided on rationing basis for 2 hours in the morning and 2 hours in the evening, a maximum period of 4 hours every day. Assume that your household obtains water from the tap in the compound, that you share with about 10 other dwellings.

(44) Would you be willing to contribute KSh 800/- per month towards the water bills for the tap?

If 'Yes' - Willingness to Pay is KSh 800/- .....END

If 'No' go to (45)



(45) Would you be willing to contribute KSh 700/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh 700/- .....END

If 'No' go to (46)

(46) Would you be willing to contribute KSh 600/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh 600/- .....END

If 'No' go to (47)

(47) Would you be willing to contribute KSh 500/- per month towards the water bill for the tap?

If 'Yes' - Willingness to Pay is KSh 500/- .....END

If "No" go to (48)

(48) What is the maximum amount of money per month are you willing to contribute towards the water bill for the tap in order to receive 4 hours of water supply every day at your compound (service level 10)?.

I would be willing to pay a maximum of KSh.....per month for water service level (10).

Service level 11 (Privately managed water kiosk with shelter and storage tank)

Assume that you obtain water from an Improved Water Kiosk that is provided with a shelter (suitable building), a storage tank and several taps. The improved water kiosk obtains water from NWCPC's pipelines. The kiosk is metered by NWCPC and is privately managed by an operator who pays the water bill for the water sold to NWCPC. Assume that this kiosk is open from 7 a.m. to 7 p.m. daily, and good quality water from the NWCPC pipeline is available throughout the day with adequate pressure.

(49) Would you be willing to pay KSh.7/- per 20-litre container of water bought from the improved water kiosk?

If 'Yes' - Willingness to Pay is KSh.7/- .....END

If 'No' go to (50)

(50) Would you be willing to pay KSh.6/- per 20-litre container of water bought from the improved water kiosk?

If 'Yes' - Willingness to Pay is KSh.6/- .....END

If 'No' go to (51)

(51) Would you be willing to pay KSh.5/- per container of water bought from the improved water kiosk?

If 'Yes' - Willingness to Pay is KSh 5/- .....END

If "No" go to (52)

(52) Would you be willing to pay KSh 4/-per 20-litre container of water bought from the improved water kiosk?

If 'Yes' - Willingness to Pay is KSh 4/-.....END

If 'No' go to (53)

(53) Would you be willing to pay KSh 3/- per 20-litre container of water bought from the improved water kiosk?

If 'Yes' - Willingness to Pay is KSh 3/-.....END

If 'No' go to (54)

(54) What is the maximum amount of money you are willing to pay for a 20-litre container of good quality water obtained from an improved water kiosk where water is available at good pressure throughout the day?

I would be willing to pay a maximum of KSh.....per 20-litre container of good quality water from an improved water kiosk.

**All respondents in this market segment whose willingness to pay for service level (11) is less than KSh.4/- per 20 litre container should be requested to answer questions under SERVICE LEVEL 12 below. These are the respondents whose answer to question number 54 is less than KSh.4/- per 20 litre container of water.**

*Service level 13 (Community managed water kiosk with shelter and storage tank)*  
Assume that you obtain water from an Improved Water Kiosk that is provided with a shelter (suitable building), a storage tank and several taps. The improved water kiosk obtains water from NWCPC's pipelines. The kiosk is metered by NWCPC and is managed by a community group. The community group operates the kiosk and then pays water bills to NWCPC for the water consumed as measured by the water meter. Assume that this kiosk is open from 7 a.m. to 7 p.m. daily, and good quality water from the NWCPC pipeline is available throughout the day with adequate pressure. In order to make the water affordable to members of the community group, you are required to provide at least one days' of free work (without payment) per month at the water kiosk selling water to other community group members.

(55) Would you be willing to pay KSh 6/- per 20-litre container of water bought from the community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 6/- .....END

If 'No' go to (56)

(56) Would you be willing to pay KSh 5/- per 20-litre container of water bought from the community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 5/-.....END

If 'No' go to (57)

(57) Would you be willing to pay KSh 4/- per 20-litre container of water bought from the community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 4/-.....END

If 'No' go to (58)

(58) Would you be willing to pay KSh 3/- per 20-litre container of water bought from the community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 3/-.....END

If 'No' go to (59)

(59) Would you be willing to pay KSh 2/- per 20-litre container of water bought from a community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 2/-.....END

If "No" go to (60)

(60) Would you be willing to pay KSh 1.50 per container of water bought from a community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 1.50.....END

If "No" go to (61)

(61) Would you be willing to pay KSh 1/- per container of water bought from a community managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 1/-.....END

If "No" go to (62)

(62) Would you be willing to pay K-cents 50 per 20-litre container of water bought from the community managed water kiosk?

If 'Yes' - Willingness to Pay is K-Cents 50.....END

If 'NO' go to (63)

(63) What is the maximum amount of money you are willing to pay for a 20 litre container of water obtained from a community managed water kiosk that is open from 7.00 am to 7.00 pm?

I would be willing to pay a maximum of KSh.....per 20 litre container of water from a community managed water kiosk.

(64) In order to make the cost of water to members of the community group affordable, it is proposed that each community group member should contribute KSh200/-per month towards the cost of employing a kiosk attendant. Once each group member pays Ksh200/-per month, group members would pay reduced charges for each 20-litre container bought from the community water kiosk.

Would you be willing to contribute KSh200/- per month to the cost of employing a kiosk attendant (or alternatively contribute at least one days' free labour per month, working at the community water kiosk)?

A) Yes  B) No

Service level 12 (Privately managed water kiosk without shelter or storage tank, that is ordinary water tap)

Assume that you obtain water from an ordinary Water Kiosk (this is a tap without any storage tank) supplied with water by NWCP pipeline through a water meter to record consumption. An operator, who sells water in units of 20litres and then pays water bills to NWCP, privately manages the Water Kiosk. Assume that this kiosk is open from 7 a.m. to 7 p.m. daily. Sometimes times the pressure of water is low, as there is no storage tank next to the water kiosk.

(65) Would you be willing to pay KSh 4/- per 20-litre container of water bought from the water kiosk?

If 'Yes' - Willingness to Pay is KSh 4/- .....END

If 'No' go to (66)

(66) Would you be willing to pay KSh 3/- per 20-litre container of water bought from the water kiosk?

If 'Yes' - Willingness to Pay is KSh 3/- .....END

If 'No' go to (67)

(67) Would you be willing to pay KSh 2/- per container?

If 'Yes' - Willingness to Pay is KSh 2/- .....END

If "No" go to (68)

(68) Would you be willing to pay KSh 1.50 per container of water bought from the privately managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 1.50.....END

If "No" go to (69)

(69) Would you be willing to pay KSh 1/- per container of water bought from the privately managed water kiosk?

If 'Yes' - Willingness to Pay is KSh 1/-.....END

If "No" go to (70)

(70) What is the maximum amount of money you are willing to pay for a 20-litre container of water obtained from an ordinary privately managed water kiosk? The water kiosk is managed by a private person and is open from 7 am to 7 pm.

I would be willing to pay a maximum of KSh.....per 20 litre container of water from an ordinary privately managed water kiosk.

Now, the bidding game is finished.

END OF QUESTIONNAIRE. *Please thank the respondent for his/her time spent with you.*

**Time questionnaire completed.....**

**Section Seven: To help us with future questionnaires please answer the following questions.**

7:a) How long did you spend completing this questionnaire?.....

7:b) Did you understand all the questions?

A) Yes  B) No

*Please make any other comments about any part of this questionnaire in the space*

.....  
.....  
.....

*Thank you for completing this questionnaire.*

*Eng. Cyrus Njiru, WEDC, Loughborough University, UK. July 2000*

*To the Enumerator:*

*Your Name:.....*

*Supervisors name:.....*

*Supervisor checked completed form (please sign).....*

*Date completed:.....*