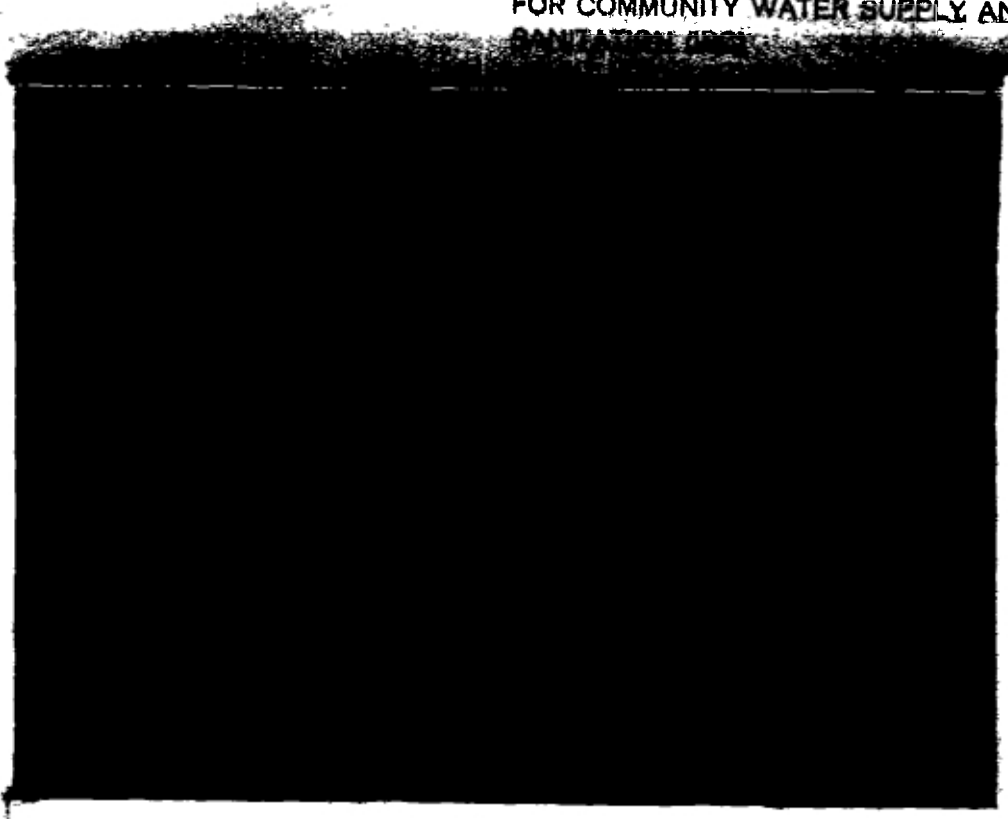


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Annexes

MPOPI

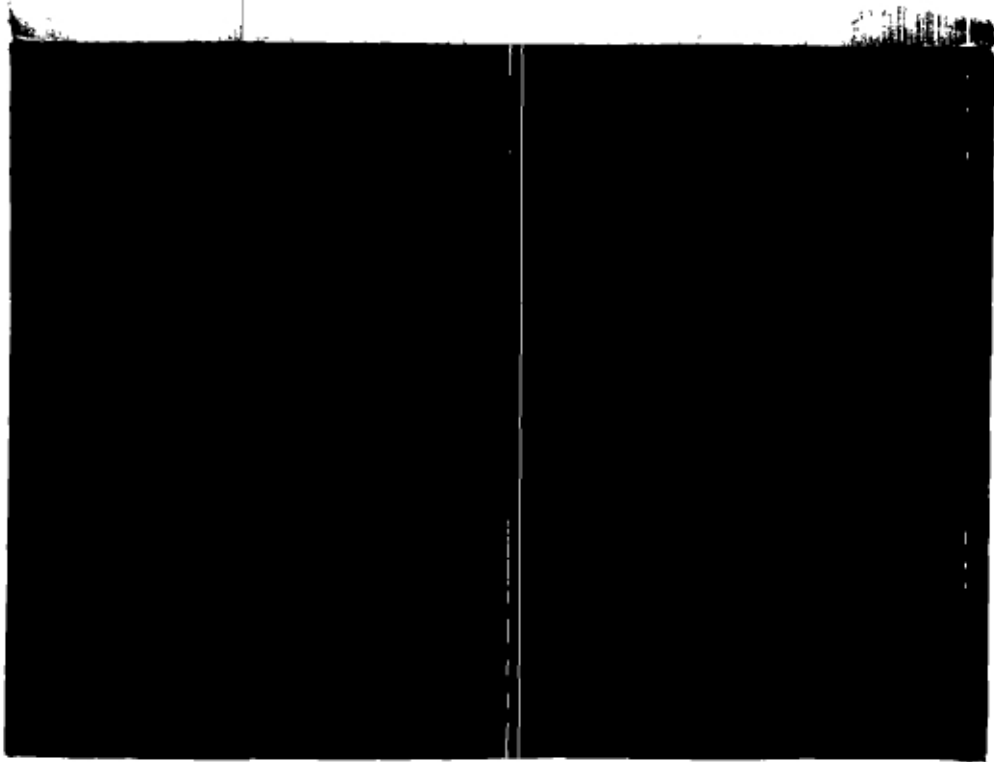
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Grindings of pencils which were handed out during the inquiry

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Mzuzu, August 1993

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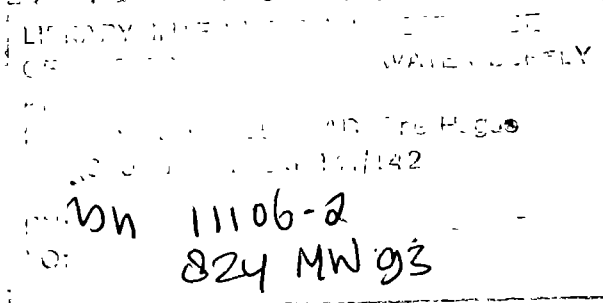
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MPOPI



Grindings of pencils which were handed out during the inquiry .



Marcel van Dorst
Juil de Ridder
Mzuzu, August 1993



Annexes

- Annex 1** Terms of Reference
- Annex 2** Field check list
- Annex 3** Questionnaire
- Annex 4** Results of questionnaire
- Annex 5** Map of Malawi
- Annex 6** Cost calculation of a CWP
- Annex 7** Overview of CWP locations in Mzuzu
- Annex 8** Area description
- Annex 9** Graphs of Consumption, Payment and Balance 1984-1993
- Annex 10** Graphs of Consumption, Payment and Balance 1992-1993
- Annex 11** Treatment plant
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- Annex 15** Guidelines for tap committee & community
- Annex 16** Organisation structure of the Water Department
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- Annex 18** Water rates
- Annex 19** Payment forms
- Annex 20** Household contribution form
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- Annex 22** Fieldvisit
- Annex 23** Stories
- Annex 24** Primary Workplan and adjustments

**Draft Research Proposal
Micro-research CWP's Mzuzu**

I. Introduction

Successful Community Based Urban water supply projects are rare. Unlike the rural water supply programmes, where the concept of community based water supply programmes has gained wide acceptance and extensive experience has been gained, Community based "urban" water supply programmes are relatively new concepts.

With rehabilitation and rapid urbanisation, many countries in Eastern and Central and North Eastern Africa are to embark on community based (peri) urban water supply programmes. However experience with urban water supply programmes in these countries is very limited indeed. Thus there is a need to document successful programmes in this field.

The PSSC programme has been successful in drawing attention to a number a specific schemes which it has supported with finance and additional staff. Much information on these schemes has been gained through PSSC. However little attention was paid to CWP schemes that had not received support of the PSSC. The impression obtained during a recently completed evaluation indicated that CWP schemes, without support of the PSSC, had performed remarkably well, despite the lack of additional project support.

It is this successful performance that the proposed micro research project wishes to target upon. What have been the underlying factors contributing to the success of these (peri) urban schemes? What lessons can be drawn after 12 years of regular operation of these schemes?

It is not and it can not be the intention of this micro research project to deal with these complicated questions in final terms. Such question require a far more thorough approach for which the means and the qualifications are not available at this time. This project essentially aims to provide initial information on the workings of CWP's under normal conditions after 10-12 years of operations without external assistance.

Research topics and methodology of this research to be carried out by two students of the IAHL as part of their training, in conjunction with Water Department staff are described below. It is anticipated that the research project will last over a period of 15 weeks to begin april 11th. final reports to be discussed before departure from Malawi on August 8th.

II. Research Topics

Theme in topic of research are the Communal Water Points standposts in urban areas, as operated by the Water Department and the local committees over the past 10-12 years in piped schemes without external assistance.

It is the assumption that these CWP's have been successful in terms of

- i Operations and Maintenance of the standpost systems
- ii Financial discipline and cost recovery
- iii Institutional sustainability at different levels
- iv Supplying water to low income peri-urban dwellers.

ad i What have been the technical characteristics of successful O&M at scheme level and at standpost level? (reliability of supply, efficiency of repair, maintenance and operation, general demand, etc)

ad ii What have been the financial performances of the CWP's at scheme and standpost level? (income and expenditure analysis, financial discipline, collection procedures, administration and registration etc.)

ad iii What have been the key characteristics of the different directly involved institutions at scheme and standpost level? (demarcation of responsibilities between Water Department and Standpost committees, composition and structure of user groups, structure and composition of WD staff in support of CWP schemes etc.).

ad iv What are the main characteristics of the users of the CWP's? (characteristics of CWP's households, distance to CWP's and alternative water sources of different quality etc.)

It is often argued that large schemes in larger urban settings are more difficult to operate as smaller schemes using community based standposts. In Mzuzu the largest CWP programme has been operating without external support since 1981. Its large number of CWP standposts (61) provides a good opportunity for representative data collection in this field. Besides Mzuzu is a relatively large regional town, representative for an increasing number of rural towns in Africa.

It is therefore proposed that the Mzuzu CWP scheme is selected as the micro research area for this project. Time permitting consideration may be given to select a smaller scheme with a different performance record in the vicinity of Mzuzu (eg. Nkata bay (12 CWP's) or Rumphi (17 CWP's)) as a second research area.

III. Methodology

Research will be divided into two components; research at scheme level and research at standpost level. Questions related to the research topics will be dealt with using different data collection techniques. These are questionnaires, interviews, literature study, observation of water use at standposts, and workshops with Water Department staff and CWP users and committee members.

The collected data will be discussed with the Water Department before and after analysis. Frequently debriefing meetings with the Water Department's Super Intendent and his designated staff are essential, so that correct interpretation of data is safeguarded.

IV. Workplan (Annex 24)

V. Implementation and Supervision

The research will be carried out by Ms. J.de Ridder and Mr. M. van Dorst in conjunction with designated staff of the Water Department. The regional offices of the Water Department in Mzuzu will serve as the basis for research activities.

The day to day supervision of the research will be the responsibility of the Regional Superintendent or someone appointed by him. From the side of the International Agricultural College of Larenstein (IAHL, the Netherlands), Mr.van den Wall Bake will assume the responsibility of supervision.

VI. Logistics and Budget

The costs of the activities will be mainly carried by the students of the IAHL. This includes airfares, insurances, cost of living, regional transport etc.. The Water Department will appoint staff with sufficient relevant knowledge and local experience, to participate in this research project. It will also provide basic office facilities in Mzuzu, as well as assist in the provision of local transport during the research. Besides it will assist in finding basic accommodation for the Dutch students possibly in the project area. Finally the Water Department will provide all the necessary data required to facilitate this research.

Ms J. de Ridder,
Mr. M. van Dorst

Date: 17 March 1993

| AREA | CWP | DATE_OPERA | TAPS | COVER | LOCK | PLATFORM | STANDAREA | DRAB | W M | CONS | BAL_MARCH | BAL_APRIL | BAL_MAY |
|---------------|-----|------------|-----------------------|-------|------|----------|------------|---------|--------|------|-----------|-----------|---------|
| Chibavi | 1 | 01 Jul 84 | 2*75 + 1*60mbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | | 84 | 303 39 | 291 13 | 209 25 |
| Chibavi | 2 | 01 Jul 84 | 2*60mbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/mbr | | 47 | 88 32 | 179 38 | 74 88 |
| Chibavi | 3 | 01 Jul 84 | 2*60mbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/mbr | r | 39 | 53 45 | 103 58 | 81 98 |
| Chibavi | 4 | 01 Jul 84 | 2*60mbr/wd | 1 | 1 | cl/br | hfull/ba/s | nsp/mbr | | 52 | -0 49 | 130 75 | 37 37 |
| Chibavi | 5 | 01 Jul 84 | 1*60 + 1*75mbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | | 72 | 179 43 | 214 57 | 185 95 |
| Chibavi | 8 | 01 Jul 84 | 2*60 + 1*75mbr/wd | 1 | 1 | cl/br | full/ba/s | nsp/br | | 57 | 203 37 | 114 59 | 70 89 |
| Chibavi | 7 | 01 Jul 84 | 3*60mbr/2wd + 1p | 1 | 1 | cl/mbr | full/ba/s | nsp/br | nr | 58 | 122 73 | 229 25 | 121 15 |
| Chibavi | 8 | 01 Jul 84 | 1*60 + 2*75mbr/wd | 1 | 0 | cl/br | full/ba/s | nsp/br | | 28 | 185 58 | 207 84 | 176 58 |
| Chibavi | 9 | 01 Jul 84 | 3*60mbr/wd | 1 | 0 | cl/mbr | full/ba/s | nsp/mbr | | 59 | 22 37 | 157 83 | 89 29 |
| Chibavi | 10 | 01 Jul 84 | 2*60 + 1*75mbr/wd | 1 | 1 | dr/mbr | full/ba/s | nsp/br | | 101 | 194 04 | 108 18 | 18 78 |
| Chibavi | 11 | 01 Jul 84 | 2*60mbr/wd + p | 1 | 0 | cl/mbr | full/ba/s | nsp/mbr | | 85 | 307 78 | 274 88 | 293 94 |
| Chibavi | 12 | 01 Jul 84 | 2*60mbr/wd | 1 | 1 | dr/mbr | full/ba/s | nsp/mbr | nr | 80 | 87 76 | 190 28 | 154 40 |
| Salsbury | 13 | 01 Jul 84 | 2*60mbr/wd | 0 | 1 | dr/mbr | full/ba/s | nsp/mbr | r | 50 | 371 85 | 488 15 | 512 81 |
| Salsbury | 14 | 01 Jul 84 | 2*60mbr/wd | 1 | 1 | dr/br | hfull/ba/s | nsp/br | r | 35 | 24 49 | 41 89 | 79 81 |
| Salsbury | 15 | 01 Jul 84 | 2*60mbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | | 112 | 107 22 | 215 22 | 123 22 |
| Mzilawayingwe | 16 | 01 Mar 85 | 3*75mbr/wd | 1 | 0 | cl/br | full/ba/s | nsp/br | nr | 65 | 82 81 | 24 85 | 33 11 |
| Mzilawayingwe | 17 | 01 Mar 85 | 2*60mbr/wd | 0 | 0 | dr/br | full/ba/s | nsp/br | r | 34 | 58 12 | 86 82 | 49 80 |
| Mzilawayingwe | 18 | 01 Apr 85 | 2*75mbr/wd | 1 | 1 | dr/br | hfull/ba/s | nsp/mbr | nr | 39 | 151 88 | 143 00 | |
| Mzilawayingwe | 19 | 01 Nov 84 | 2*75mbr/wd | 1 | 1 | dr/br | hfull/ba/s | nsp/br | r | 40 | 251 81 | 311 51 | 278 85 |
| Chiputula | 20 | 01 Nov 84 | 2*60mbr/wd | 1 | 1 | dr/br | hfull/ba/s | nsp/br | r | 52 | 121 98 | 99 68 | 51 82 |
| Chiputula | 21 | 01 Nov 84 | 1*60 + 1*75mbr/wd | 1 | 1 | cl/br | none | none | nr | 44 | 227 50 | 178 74 | 129 98 |
| Chiputula | 22 | 01 Nov 84 | 2*60mbr/wd | 1 | 1 | cl/br | full/ba/s | nsp/br | r | 41 | 205 59 | 72 05 | 123 11 |
| Chiputula | 23 | 01 Nov 84 | 3*60mbr/wd | 0 | 1 | cl/mbr | full/ba/s | nsp/br | | 26 | 243 40 | 317 98 | 270 14 |
| Chiputula | 24 | 01 Nov 84 | 2*60 + 1*75/2br/wd | 0 | 1 | dr/br | hfull/ba/s | nsp/br | r | 49 | 194 83 | 192 23 | 178 43 |
| Chiputula | 25 | 01 Nov 84 | 2*60 + 1*75mbr/wd | 0 | 1 | dr/br | hfull/ba/s | nsp/br | | 60 | 45 72 | 72 92 | 142 92 |
| Chiputula | 28 | 01 Dec 84 | 2*60 + 1*75mbr/wd + p | 1 | 1 | dr/br | hfull/ba/s | nsp/br | r | 88 | 320 19 | 408 89 | 350 11 |

Field check list

| AHEA | CWP | DATE_OPERA | TAPS | COVER | LOCK | PLATFORM | STANDAREA | DRAIN | W M | CONS | BAL_MAR85 | BAL_APRIL | BAL_MAY |
|--------------|-----|------------|--------------------|-------|------|----------|-------------|---------|--------|------|-----------|-----------|---------|
| Zolozolo | 27 | 01 Apr 85 | 2*50/nbr/wd | 1 | 1 | cl/br | full/ba/s | nsp/br | r | 36# | 45 00 | 30 83 | 113 83 |
| Zolozolo | 28 | 01 May 85 | no taps | 1 | 1 | cl/br | full/ba/s | nsp/br | no | 0 | 145 13 | 145 13 | 145 13 |
| Zolozolo | 29 | 01 Apr 85 | 1*50 + 1*75/nbr/wd | 1 | 1 | cl/br | full/ba/s | nsp/br | ni | 85# | 164 71 | 127 91 | 191 11 |
| Zolozolo | 30 | 01 Oct 84 | 3*75/nbr/wd | 1 | 0 | cl/br | full/ba/s | nsp/br | nr | 83 | 429 31 | 342 83 | 258 35 |
| Zolozolo | 31 | 01 Nov 84 | 1*75/nbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | r | 30# | 33 42 | 50 44 | 67 00 |
| Zolozolo | 32 | 01 Nov 84 | 2*75/nbr/wd | 1 | 1 | cl/br | full/ba/s | nsp/mbr | ni | 120# | 278 01 | 139 38 | 271 38 |
| Zolozolo (W) | 33 | 01 May 85 | 2*50/1br/wd | 1 | 0 | cl/br | full/no/s | nsp/br | r | 50# | 288 25 | 243 83 | 198 09 |
| Zolozolo (W) | 34 | 01 May 85 | 1*50 + 1*75/1br/wd | 1 | 0 | cl/br | full/ba/s | nsp/br | r | 90# | 85 47 | 149 57 | 195 11 |
| Masasa | 35 | 01 Aug 85 | 2*75/nbr/wd + p | 1 | 1 | cl/br | full/ba/na | nsp/br | r | 37# | 64 35 | 24 45 | 118 87 |
| Masasa | 36 | 01 Aug 85 | 2*50/nbr/wd + p | 1 | 1 | cl/br | full/ba/s | nsp/br | r | 30 | 38 53 | 81 61 | 4 09 |
| Masasa | 37 | 01 Aug 85 | 2*75/nbr/wd | 1 | 1 | cl/br | full/ba/na | nsp/br | r | 21 | 3 70 | 62 12 | 82 60 |
| Masasa | 38 | 01 Aug 85 | 2*75/nbr/wd | 1 | 1 | cl/br | full/ba/na | nsp/br | r | 17 | 83 88 | 3 14 | 0 80 |
| Masasa | 39 | 01 Aug 85 | 2*75/nbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | r | 29 | 207 37 | 211 03 | 174 69 |
| Masasa | 40 | 01 Aug 85 | 2*75/nbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | r | 20 | 109 49 | 155 40 | 201 49 |
| Masasa | 41 | 01 Aug 85 | 2*50 + 1*75/nbr/wd | 1 | 1 | cl/mbr | full/ba/s | nsp/br | r | 0 | 79 17 | 169 33 | 224 53 |
| Masasa | 42 | 01 Aug 85 | 2*75/nbr/wd | 1 | 1 | cl/mbr | hfull/ba/s | sp/br | r | 40 | 84 83 | 74 30 | |
| Masasa | 43 | 01 Aug 85 | 2*50/nbr/wd | 1 | 0 | cl/mbr | hfull/ba/s | sp/mbr | | 40 | 245 11 | 127 81 | 133 79 |
| Masasa | 44 | 01 Aug 85 | 1*50 + 1*75/nbr/wd | 1 | 0 | cl/mbr | hfull/ba/s | sp/br | r | 33 | 82 82 | 30 02 | 42 62 |
| Masasa | 45 | 01 Aug 85 | 2*75/nbr/wd | 1 | 1 | cl/br | full/ba/na | nsp/br | r | 56 | 113 19 | 114 09 | 7 81 |
| Masasa | 46 | 01 Aug 85 | 1*50/1*75/nbr/wd | 1 | 1 | cl/mbr | hfull/ba/na | sp/mbr | r | 24# | 6 60 | 83 31 | 129 31 |
| Masasa | 47 | 01 Aug 85 | 2*50/nbr/wd + p | 1 | 0 | cl/mbr | hfull/ba/na | sp/br | r | 0# | 339 60 | 307 88 | 276 58 |
| Masasa | 48 | 01 Aug 85 | 1*50/1*75/nbr/wd | 1 | 1 | cl/br | full/ba/s | nsp/br | ni | 90 | 241 00 | 407 72 | 527 55 |
| Masasa | 49 | 01 Aug 85 | 2*50/nbr/wd | 1 | 1 | cl/mbr | hfull/ba/na | sp/mbr | nr | 30# | 109 71 | 109 71 | 7 71 |
| Masasa | 50 | 01 Aug 85 | 2*50/nbr/wd + p | 1 | 0 | cl/mbr | full/ba/s | nsp/br | r | 118 | 110 19 | 242 18 | |
| Masasa | 51 | 01 Jan 86 | 2*75/nbr/wd | 1 | 0 | cl/br | full/ba/s | sp/br | nr | 58 | 170 84 | 105 40 | |

| AREA | CWP | DATE_OPERA | TAPS | COVER | LOCK | PLATFORM | STANDAREA | DRAIN | W M | CONS | BAL_MARCH | BAL_APRIL | BAL_MAY |
|---------------|-----|------------|----------------------|-------|------|----------|-------------|---------|--------|------|-----------|-----------|---------|
| Clubanja | 52 | 01 Apr 85 | 2" 75/mb/wd | 1 | 0 | cl/bx | full/bx/s | nsp/bx | nr | 80# | 180 47 | 135 38 | 181 21 |
| Chibanja | 53 | 01 May 85 | 1" 75/mb/wd | 1 | 0 | dr/bx | htfull/bx/s | sp/bx | r | 80# | 217 21 | 281 03 | 224 23 |
| Ching anibo | 54 | 01 Nov 85 | 1" 50 + 1" 75/1br/wd | 1 | 1 | cl/bx | full/no/s | nsp/bx | r | 50# | 289 83 | 114 13 | 16 49 |
| Ching anibo | 55 | 01 Nov 85 | 2" 50/1br/wd + p | 1 | 0 | cl/mbx | full/no/s | nsp/bx | nr | 4/# | 186 27 | 224 87 | 187 53 |
| Ching anibo | 56 | 01 Jan 88 | 2" 75/mb/wd | 1 | 1 | dr/bx | full/no/s | nsp/bx | nr | 55# | 547 74 | 610 54 | 712 00 |
| Ching anibo | 57 | 01 Dec 85 | 2" 50/1br/wd | 1 | 1 | dr/bx | full/no/s | nsp/bx | r | 56 | 82 14 | 183 06 | 227 90 |
| Mzilawayingwe | 58 | 01 Oct 90 | 2" 75/mb/wd | 1 | 1 | cl/mbx | htfull/bx/s | nsp/mbx | r | 42 | 103 10 | 118 54 | 0 00 |
| Zolozolo | 59 | 01 Nov 90 | 2" 75/mb/wd | 0 | 0 | cl/bx | none | nsp/mbx | r | 80# | 706 59 | 767 19 | 724 41 |
| Katawa | 60 | 01 Feb 81 | 1" 75 + 1" 50/mb/wd | 0 | 0 | cl/bx | none | nsp/bx | r? | 55 | 148 67 | 5 86 | 53 88 |
| Zolozolo | 61 | 01 May 82 | 2" 75/mb/wd | 0 | 0 | cl/mbx | none | nsp/bx | | 76 | 258 87 | 333 03 | 285 65 |
| Clubanja | 62 | 01 Aug 82 | 2" 50/mb/wd | 0 | 0 | cl/bx | none | nsp/bx | r | 81 | 523 54 | 441 20 | 334 52 |
| Lupeso | 75 | 01 Jan 84 | 2" 50/2br/wd | 1 | 1 | cl/mbx | htfull/ps/s | nsp/bx | r | 80# | 10 08 | 56 05 | 102 05 |

All the visits were made between 26th of April and 11th of May 1993.

Codes used in Dbase

AREA: Chibavi, Salisbury, Mzilawayingwe, Chiputula, Zolozolo, Zolozolo(W), Masasa, Chibanja, Ching'ambo, Katawa, Lupaso

CWP: 1 t/m 62, 75

DATE_OPERA: Date on which it was brought into use

TAPS: The size and amount of the taps which are present

- 1br : one is broken or not working
- 2br : two are broken or not working
- nbr : all taps are working
- wd : the official tap brought from wd
- p : other the official ones
- 2wd + 1p : two official ones and one un-official

COVER:

- 1 : there is a cover fixed in such a way that when it is locked it is not possible to enter the meterchamber
- 0 : there is no cover or it is fixed in such a way that you can enter the meterchamber even when it is locked.

LOCK:

- 1 : there is a good working lock present and it locks the meter-chamber
- 0 : there is no lock present, or it is present but it is not locking the meterchamber

PLATFORM: This is the part of the structure were the buckets are standing under the tap while filling.

- cl : clean, it is clean and free of sand and free of dirt, like sugarcane-rests, grass, alg tarnish.
- dr : dirty, there is dirt or sand or alg tarnish
- nbr : not broken, when it is smooth, level and in the condition when it was constructed
- br : broken, when there is/are whole(s) (bad because animals can use it as a drinkingplace or children can playing with it) or when a border is crumbled off or when cracks

STANDAREA: The standingarea is the part of the structure where the consumers can put there full or empty bucket.

- none : there is no standingarea present
- hfull : when the standingarea is not filled up to the border either with stones or sand or something else
- full : when the standingarea is filled up to the border either with stones or sand or something else
- bs : big stones, when the top layer (± 5 cm) is composed of big stones (bricks, natural stones) either with sand or without
- ss : small stones, when the top layer (± 5 cm) is composed of small stones (small pieces of bricks or small natural stones) either with sand or without
- ns : no stones, when there are no stones in the top layer (± 5 cm), only sand

s : sand, when there is sand present in the standing area, either with big stones or small stones or no stones
 ns : no sand, when the standing area is free from sand, only filled with stones
DRAIN:
 none : when no drain is attendant, not even fragments
 sp : a soak away pit is present either it is working or not, depending on the condition of the drain.
 nsp : no soak away pit, when there is no soak away pit constructed or present.
 nbr : not broken, when the drain is smooth without cracks and proper connected to the platform
 br : broken, when the drain is cracked or not connected properly to the platform
WM: Water meter
 r : running, the meter is running
 nr : not running, the meter is stucked.
CONS: The number of consumers using the CWP
BAL_MARCH The amount of money in credit or debit of the month March
BAL_APRIL The amount of money in credit or debit of the month April
BAL_MAY The amount of money in credit or debit for the month May

English

Introduction: The use of a Communal Water Point by your community is an example from which people can learn. Please, are you willing to co-operate by answering this questionnaire? In this way we can get a good view of the use of a Communal Water Point. Your answers will be kept in confidence. Thank you very much

1. Name of the interviewee
2. Sex of interviewee Female Male
3. How many people are living in your house?
Adult
Children:
4. Are you renting your house?
 yes no
5. For how long do you live in the house you are in now?(Only one answer possible)
 3 months
 Half year
 1 year
 2 years
 3-5 years
 6 years and longer
6. What is your income per month?.i.e.whether working, whether doing business Kwacha
7. How many relatives of you are in the same Communal Water Point Community?
Mention their names
8. How far away is the Communal Water Point from your house?
metres
9. How long does it take to go to the Communal Water Point?
minutes
10. How much water is collected each day?
buckets
11. Who collects the water?
 Children, girls
 Children, boys
 Adults, females
 Adults, males
 Every one in the house hold except for small children
12. For what purpose is the tapwater collected being used?
Drinking and cooking buckets per day
Washing of food and utensils "
Personal washing "
Washing of clothes "
Watering of the garden "
Watering of animals "
13. How often do you clean your bucket?(Only one answer possible)
 Every time you fill the bucket
 Once a day
 Once a week
 Never
14. Do you wash your clothes, dishes or children at the Communal Water point?
 yes no
15. How do you store your water?
 Just in the bucket
 In drums
 In pots and pans
 In a tank
16. Are you boiling the water before consuming?
 no yes
17. Do you think your Communal Water Point is clean?
 yes no
18. Do you contribute anything towards the maintenance of the Communal Water Point, like cleaning or repairing?
 yes no

19. How often do you clean the surroundings of the Communal Water Point?(Only one answer possible)
- Daily
 - Weekly
 - Once in the 2 weeks
 - Monthly
 - Once every 2 months
 - Once a year
 - Less than once a year
 - Only when there is a problem
 - Never
 - Don't know
20. Why are you keeping your Communal Water Point clean?
- Somebody from Water Department said so
 - Somebody from Ministry of Health said so
 - When it is dirty it causes diseases
 - Don't know
21. What do you think about the water of the Communal Water Point?
- Is it causing diseases? yes no
 - Does it taste good? yes no
 - Do you need a lot of soap? yes no
22. Which household members are using the water of Communal Water Point for drinking and personal washing?
- Mother
 - Father
 - Children
 - None
23. Are there times the Communal Water Point is broken?
- yes, did you report it? yes no
 - no
24. If yes, how frequently was the Communal Water Point broken? (Only one answer possible)
- More than once a month
 - Once month
 - Once every three months
 - Rare
 - Very rare
25. What is the usual cause of such problems?(Only one answer possible)
- Taps break down
 - People steal parts
 - Breakdown in meter chamber
 - Don't know
26. Who undertook the repairs?(Only one answer possible)
- Committee
 - A community member
 - A local mechanic
 - Water Department
 - Not yet repaired
 - Don't know
27. Did you report the breakdown to the Water Department?
- no yes
28. When was the last time there was no water at the Communal Water Point?(Only one answer possible)
- Now
 - Less than 1 week ago
 - 1 to 2 weeks ago
 - 3 to 4 weeks ago
 - 5 to 12 weeks ago
 - Can't remember
29. Do you know exactly what went wrong when there was no water?
- Lack of pressure
 - Repairs at main line
 - Did not pay the bill
 - Don't know

30. How long did it take when the supply was restored?(Only one answer possible)
- A few hours
 - The whole day
 - A few days
 - 1 week
 - 1 to 3 weeks
 - 4 to 8 weeks
 - Not yet rectified
 - Can't remember
31. Please, mention all sources of water supply where you take water from!
- Shallow well
 - River
 - Private connection
 - Rain water
 - Hand pump
 - Communal Water Point
 - Others
32. Why are you taking water from a alternative source other than the Communal Water Point?
- Taste
 - Colour
 - Breakdown Communal Water Point
 - Better for washing
 - Cheaper
 - Healthier
 - others
33. How far away is the alternative water source, not including the Communal Water Point, from your house?
- metres
34. How long does it take to go to the water source not including the Communal Water Point, fetch water and come back?
- minutes
35. What do you think about the water other than the Communal Water Point?
- Is it causing diseases? yes no
 - Does it taste good? yes no
 - Do you need a lot of soap? yes no
36. If the price per month of water is increasing are you able to continue to be a consumer of the Communal Water Point?
- yes no
37. Is the tap closed for limited hours?
- yes, because:
- Children are playing with water
 - Leakage of taps
 - Misusing of water
 - To control the amount of water taken from the tap
- no
38. Are you satisfied with the opening hours?
- yes no
39. Who said that you have to pay for the water from the Communal Water Point?
- The committee
 - Mr. Msukwa(Monitoring Assistant)
 - The Water Department
 - The City Council
 - The Ward Councillor
 - Don't know
40. What would you like to be changed at your Communal Water point?
- Nothing
 - Standing area
 - Platform
 - Taps
 - Cover,Lock
 - Drain, Soak away pit
 - Tap wall
 - Height
 - Bucket place
41. Why would you want the item mention above to be changed?
- Not working
 - Useless
 - Uneasy
 - Dangerous, causing problem

42. Do you think it is fair to pay for the water?
- no, because.
 - Must be a social service provided by the government
 - The necessities of life
 - Other people are also not paying
 - Don't know
 - yes, because
 - Treated water
 - Near to my house
 - Taste is good
 - Causing no diseases
 - Fresh
 - Reliable
 - Don't know
43. If you know that a consumer is not paying, do you still allow her to draw water?
- yes
 - no
44. Who do you think should be responsible for the maintenance of the Communal Water Point?(Only one answer possible)
- Committee
 - Water Department
 - Community
 - Ward Councillor
 - Others
 - Don't know
45. To whom does the Communal Water Point belong?(Only one answer possible)
- Ward Councillor(City Council)
 - Community
 - Water Department
 - Don't know
46. If the Water Department is not able to assist in maintaining the Communal Water Point, what do you think will happen?(Only one answer possible)
- The facility will break down
 - The community will maintain it
 - Another institution will have to take over
 - Don't know
47. Do you think the committee is doing the things they are responsible for in your opinion?
- yes
 - no
48. How do you check if members are paying?(Only one answer possible)
- No checking
 - Observation on day of payment
 - Going to their houses
49. Is it good that every member pays the same amount for the water?
- no
 - yes
50. Who should decide when and on what to spend the contributed money?(Only one answer possible)
- Ward Councillor
 - Water Department
 - Community
 - Committee
51. What are the responsibilities of the Community?
- Keeping the Communal Water Point clean
 - Control the payment of each member
 - Welcome the persons who are not members and tell them to pay
 - Going to the Water Department office and report damages
52. To whom is the committee responsible?(Only one answer possible)
- Ward Councillor
 - Water Department
 - Mr Msukwa(Monitoring Assistant)
 - City Council
 - Community
 - Don't know

53. How often does the Community hold meetings?(Only one answer possible)
- Weekly
 - Once in the 2 weeks
 - Monthly
 - Once every 2 months
 - 4 times a year
 - Once a year
 - Less than once a year
 - Only when there is a problem
 - Never
 - Don't know

Chichewa

Chidziwitso Kugwiritsa utchito Madzi pa mpopi ndi mzinda wa anthu, ndi chitsanzo chomwe anthu anga Mpunzi-re Chonde, mungafuna kuti tigwizane poyankha mafunso awa mu ujira yotere, kuti tigwiritse bwino madzi pa mpopi Manyankho anu adzasungika nitima, Dzikomo.

1. Dzina la munthu ofunsidwa.
2. Mkazi kapena Mwamuna
3. Ndi anthu angati akukhala mu nyumba?
Anthu akulu Ana:
4. Mumalipira ndarama kunyumba? (rent) Inde (yes) or Iyayi (no)
5. Mwakhala nthawi yotalika bwanji mu nyumba teono? (Yankho limodzi)
 Miyezi itatu; Pakati pa chaka, Chaka chimodzi; Zaka ziwiri; Zaka zitatu papena zisanu;
 Zaka zisanu ndi chimodzi kapena kuposa opo
6. Mumapeza ndalama zingati pamwezi? i.e Kaya mukugwira ntchito, Kaya mulindi ndi business etc Kwacha
7. Muli udi abale angati omwe muma tunga nawo madzi pa mpopi? Tchulani maina awo.
8. Mtunda wautali bwanji kuchoka panyumba kupita kotunga madzi ku pompi? metres
9. Mumatenga ma ola angati popita ku mpompi? minutes
10. Mumatunga dowa zingati pa tsiku? Ndowa
11. Ndani amatunga madzi?
 Ana: Anyamata, Ana: atsikana; Akulu: Akazi; Akulu: Amuna, Aliyense wankulu panyumba
12. Muma gwiritsa ntchito yanji madzi otungidwa pa pompi?
- Kumwa kapema kuphikira Ndowa zake pa tsiku
- Kutsuka zakudya ndi zodyelamo Ndowa zake pa tsiku
- Kuchapa zovala Ndowa zake pa tsiku
- Kumwetsa ziweto Ndowa zake pa tsiku
- Kuwumbila njelwa Ndowa zake pa tsiku
- Kuthirira mtewu Ndowa zake pa tsiku
13. Mumatsuka kangati ndowa zanu? (Yankho limodzi)
 Nthawi iriyonse mukamatunga madzi; Kamodzi pa dzuwa; Kamodzi pa mlungu; Osachapa iyayi
14. Mumachapa zobvala, kutsuka mbale kepana kusambitsilapo ana pa mpopi? Inde (yes) or Iyayi (no)
15. Muma sunga bwanji madzi?
 Mu ndowa; Mu ma dramu; Mu miphika ndi ma pani; Mu thakhi;
16. Mumaphitsa madzi akumwa? Iyayi (no) or Inde (yes)
17. Mumaganiza kuti madzi omwe mumatunga ku mpopi ndi abwino?
 Inde (yes) or Iyayi (no)
18. Mumasonkha udarama za mpopi muka fuma kukhonzika kapena ku khonzetsa? Inde (yes) or Iyayi (no)
19. Muma sesa kangati pa mpopi? (Yankho limodzi)
 Tsikundi tsiku, Pa mlungu, Kamodzi pa mlungu iwiri; Pa mwezi, Kamodzi pa miyezi iwiri, Kamodzi pa chaka, Kuchepera kamodzi pa chaka; Pakakhala bvuto; Kapena osakhozapo ayi; Kapena simukudziwa
20. Ndichifukwa chiani, muma sesapo pa mpopi?
 Wima wake kuchoka ku water Department anadzaku uzani, Mwina kuchokera kwa a Health a nakudzaukuzani, Chifukwa chakuti (padzi) kuonongeka kuti pangabweretse matenda,
 Simukudziwa

21. **Mukuganiza bwanji za madzi a mipopi?**
 Kubweretsa nthenda Inde (yes) or Iyayi (no)
 Madzi abwino Inde (yes) or Iyayi (no)
 Amafuna sopo wambiri Inde (yes) or Iyayi (no)
22. **Kodi ndi anthu ati panyumba panu omwe amagwiritsa nthito madzi a ku mpopi pa kumwa kapena ku chapira?**
 A mai, A bambo, Ana,
23. **Pali nthawi yina mpopi unathyoka?**
 Inde (yes), Muna panga lipoti Inde (yes) or Iyayi (no)
 Iyayi (no)
24. **Ngati ndi choncho, pafupi- fupi kangati mpopi unaonongeka? (Yankho limodzi)**
 Kuposa kamodzi pamwezi, Kamodzi pa mwezi; Kamodzi pa miyezi yitatu; Kapena ayi;
 Ayi
25. **Kodi chimapangitsa mabvuto otele ndi chiyani? (Yankho limodzi)**
 Mipopi imaonongeka, Anthu amaba zipangizo zake, Kuonongeka ma metre chambers.(Zigawo za mipopi); Simukudziwa
26. **Ndi ndani yemwe anakonza? (Yankho limodzi)**
 A committee, Mmodzi wa mmudzi, Mekeniki a mudzi A ku Water Department; Sunakonzedwe; Simukudziwa,
27. **Munakawauza a Water Department.**
 Iyayi (no) or Inde (yes) (a Bugwe la madzi)
28. **Ndi liti, panalibe madzi pa mpopi? (Yankho limodzi)**
 Tsopano; Milungu watha; Milungu iwiri yadutsayi; Milungu inayi yadutsayi; Milungu 5 kapena milungu 12; Mwina simukukumbukira
29. **Kodi munadziwa chomwe chinachitika pomwe kumalibe madzi?**
 Kusowa kwa mpamvu zamadzi; Kusakhonza pa main line; Chifukwa chosalipira;
 Simukudziwa
30. **Panatenga nthawi yanji kuti madzi abwere nso? (Yankho limodzi)**
 Ma ola ochepa; Tsiku lonse; Masiku ochepa; Milungu umodzi; Milungu umodzi ndi itatu;
 Milungu inayi kuzafika milungu 8; Mwina mpaka pano; Simunga kumbukira
31. **Kodi madzi omwe mumagwiritsa nthito mumatunga kuti!**
 Chitsime chosazama kwambiri; Mtsinje, mpopi wanu; Madzi a mvula;
 Mipopi ya manja- i.e Borehole; Mipopi; Ndi malo ena
32. **Ndichifukwa chiani mumatunga madzi mudzitsime zina kuleka mmipopi?**
 Kukoma, Mtundu, Kuwonongeka mipopi; Amayeretsa zobvala; ofsikamtengo; Otetedzeka ku matenda
 Ndizifukwa zina
33. **Mtunda wake ndi wotalika bwaji kuchokera ku chitsime chomwe mumatunga madzi kupatula mipopi? metres**
34. **Umakutengerani ma ola angati kuti mukatunge madzi ku zitsime ndi ku bwerera? minutes**
35. **Mumaganiza bwanji za madzi ochokera kwina kusiyana a mu mipopi?**
 A'mabweretsa matenda Inde (yes) or Iyayi (no)
 Ndimadzi abwino Inde (yes) or Iyayi (no)
 Amafuna sopo wambiri Inde (yes) or Iyayi (no)
36. **Ngati mtengo wa madzi wakwera, mungathe kutungabe madzi pa mpopi? Inde (yes) or Iyayi (no)**
37. **Kodi mpopi amateka pa nthawi ina?**
 Inde (yes) chifukwa:
 Ana amaseweretsa madzi, Kudontha kwa madzi kuchokaku mpopi,

Kusagwiritsa ntchito madzi munthi a yosayenera; Kusunga kuchuluka kwa madzi mu mpopi

Iyayi (no)

38. Muli okondweretsedwa ndi nthawi imene amatsegula seka kwa madzi ndi kusegula kwa madzi?
 Inde (yes) or Iyayi (no)
39. Ndi ndani anakuuzani kuti muziripira madzi a mumpopi?
 The committee (Kabungwe koyangawira madzi); Mr Msukwa (monitoring assistant);
 Bungwe la madzi (Water Department); The city council; The ward council; Simukudziwa
40. Ndi chiyani mungafune kusintha pa mpopi?
 Palibe; Malo oyimirapo, Choyimapo Togwirira potsegula madzi; malo otseka ndi loko;
 Moyenda madzi ndi dzenje loikamo miyala, Chipupa cha mpopi, Utali, Malo oyika ndowa
41. Chifukwa chiyani cimene mwachulaci kuti cisinthike?
 Chifukwa sizikugwira ntchito; Zopanda ntchito; Chifukwa zikubvuta,
 Zoopsya chifukwa zikubweretsa mavuto
42. Kodi ndikoyenera kuti tizilipira madzi?
 Iyayi (no), Chifukwa:
 Nkoyenera kuti zonse izilipira boma; Ndichofunika ku umoyo wa munthu; anthu ena sakulipira;
 Mwina simukudziwa
 Inde (yes), Chifukwa.
 Amathira mankhwala, Ali paupu ndi nyumba; Ndi a bwino (okoma);
 Alibe matenda; Abwino; odalilika; Mwina simukudziwa
43. Kodi amene akanika kulipira mumawalolabe kutunga madzi? Inde (yes) or Iyayi (no)
44. Muganiza ndi udindo wayani kukonza mpopi? (Yankho limodzi)
 Committee (Bungwe); Water Department (Bungwe loyang'anira madzi); Community
 Ward councillor; Ena; mwina simukudziwa
45. Kodi mpopi kapena mipopi ndi ya ndani? (Yankho limodzi)
 Ward councillor (city council); Community (gulu la anthu); Water Department; Simukudziwa
46. Ngati Water Department sikukhonza mpopi, ndi chiyani chingachitike? (Yankho limodzi)
 Zisulo zikhoza kuonongeka, Gulu la anthu lingakhonze; Mwina Department yima yingakhonze; Mwina simukudziwa
47. Mukuganiza kuti committee yanu ikuchita zinthu zoyenera anthu? Inde (yes) or Iyayi (no)
48. Muma dziwa bwanji kuti aliyense alipira? (Yankho limodzi)
 Mwina osawayanganira Kumawona tsiku lolipira; Mumapita kunyumba zawo;
49. Kodi ndi bwino kuti munthu aliyense azilipira mtengo ofanana? Iyayi (no) or Inde (yes)
50. Ndani amagamula kugwiritsa ntchito ndarama zosonkherana za madzi? (Yankho limodzi)
 Ward councillor; Water Department; Community; Committee
51. Kodi ndi ntchito ziti gulu limayenela kucita?
 Kusesa malo ozingulira mpopi; Kuona malipilo a mamembala;
 Kulandira anthu omwe sali mamembala, ndi ku wa udza zolipira;
 Kumapita ku bungwe la madzi (Water Department) ndiku waudza zomwe zaonongeka pa mpopi,
52. Kodi committee iyang'aniridwa ndi ndani? (Yankho limodzi)
 Ward Councillor, Water Department, Mr Msukwa (Monitoring assistant); City council,
 Community, Kapena simukudziwa
53. Kodi misonkhano imachitika kangati? (Yankho limodzi)
 Mulungu uli onse, Kamodzi pa milungu iwiri, Mwezi uli onse, Kamodzi pa miyezi iwiri, Kanayi pa chaka, Komdzi pachaka, Mwina kuskira kamodzi pachaka, Pokhapo pakakhala bvuto, Osasonkhana ayi, Simukudziwa

PILOT QUESTIONNAIRE

source:Ref.2, Ref.6

Introduction: The use of a Communal Water Point by your community is an example from which people can learn. Please, are you willing to co-operate by answering this questionnaire? In this way we can get a good view of the use of a Communal Water Point. Your answers will be kept in confidence Thank you very much.

- 1 Name of the interviewee
2. Sex of interviewee Female Male
3. How many people are living in your house?
Adult.
Children:
4. How many relatives of you are in the same Communal Water Point Community?
Mention their names:
5. What are your daily pursuits (occupation)?
 Drawing water
 Cooking, washing
 Raise Children
 Selling at market(business)
 Farming
 Employee
 School
 None
6. How far away is the Communal Water Point from your house?
metres
7. How long does it take to go to the Communal Water Point fetch water and come back?
minutes
8. How much water is collected each day?
buckets or
litres
9. How many times a day is water collected?
times before 9:00 o'clock
times between 9.00 and 16:00
times after 16:00
10. Who collects the water?
 Children, girls
 Children, boys
 Adults, females
 Adults, males
 Every one in the house hold except for small children
11. For what purpose is the tapwater collected being used?
Drinking and cooking

| | buckets per day | litres per day |
|------------------------------|-----------------|----------------|
| Washing of food and utensils | " | " |
| Personal washing | " | " |
| Washing of clothes | " | " |
| Watering of animals | " | " |
| Watering of the garden | " | " |
12. How often do you clean your bucket?
 Every time you fill the bucket
 Once a day
 Once a week
 Never
13. Please, mention all sources of water supply where you take water from!
 Shallow well
 River
 Private connection
 Rain water
 Hand pump
 Communal Water Point
 Others
14. Why are you taking water from a alternative source not including the Communal Water Point?
 Breakdown Communal Water Point
 Taste
 Colour
 Better for washing
 Cheaper
 Healthier
 others

15. How far away is the alternative water source, not including the Communal Water Point, from your house?
metres
16. How long does it take to go to the water source not including the Communal Water Point, fetch water and come back?
minutes
17. What do you think about the water other than the Communal Water Point?
- Is it causing diseases? yes no
- Is it hard water? yes no
- Does it taste good? yes no
- Is the water fresh? yes no
- Do you need a lot of soap? yes no
18. Do you think your Communal Water Point is clean?
 yes no
19. How often do you clean the surroundings of the Communal Water Point?
 Weekly
 Once in the 2 weeks
 Monthly
 Once every 2 months
 Once a year
 Less than once a year
 Only when there is a problem
 Never
 Don't know
20. Why are you keeping your Communal Water Point clean?
 Somebody from Water Department said so
 Somebody from Ministry of Health said so
 When it is dirty it causes diseases
 Don't know
21. What do you think about the water of the Communal Water Point?
- Is it causing diseases? yes no
- Is it hard water? yes no
- Does it taste good? yes no
- Is the water fresh? yes no
- Do you need a lot of soap? yes no
22. How do you store your water?
 Just in the bucket
 In drums
 In pots and pans
 In a tank
23. Are you boiling the water before consuming?
 yes no
24. Which household members are using the water of Communal Water Point for drinking and personal washing?
 Mother
 Father
 Children older than 15 years
 Children between 5 and 15 years
 Children younger than 5 years
 Others
25. When was the last time there was no water at the Communal Water Point?
 Now
 Less than 1 week ago
 1 to 2 weeks ago
 3 to 4 weeks ago
 5 to 12 weeks ago
 Can't remember
26. Do you know exactly what went wrong when there was no water?
 yes, because of:
 Lack of pressure
 Repairs at main line
 Did not pay the bill
 no
27. How long did it take when the supply was restored?
 A few hours
 The whole day
 A few days
 1 week
 1 to 3 weeks
 4 to 8 weeks
 Not yet rectified
 Can't remember

28. Who undertook the repairs?
 Committee
 A community member
 A local mechanic
 Water Department
 Not yet repaired
 Don't know
29. Are there times the Communal Water Point is broken?
 yes, did you report it? yes no
 no
30. If yes, how frequently is the Communal Water Point broken?
 More than once a month
 Once month
 Once every three months
 Rare
 Very rare
31. What is the usual cause of such problems?
 Taps break down
 People steal parts
 Breakdown in meter chamber
 Don't know
32. Did you report the breakdown to the Water Department?
 yes no
33. If there was a need for new part to be fitted. Who supply this?
 Committee bought from shop or market
 Provided by individual
 Don't know
34. Are you prepared to pay more if the Water Department takes over all responsibilities of maintenance, like broken taps, drain etc.?
 yes no
35. If yes how much more are you prepared to pay? MK
36. If the price per month of water is increasing are you able to continue to be an consumer of the Communal Water Point?
 yes no
37. Is the tap closed for limited hours?
 yes, because:
 Children are playing with water
 Leakage of taps
 Missusing of water
 To control the amount of water taken from the tap
 no
38. Are you satisfied with the opening hours?
 yes no
39. How much do you pay for the water services? MK
 - Do you think that is enough? yes no
 - Do you think that is too much? yes no
40. How said that you have to pay for the water from the Communal Water Point?
 The committee
 Mr Msukwa(Monitorng Assistant)
 The Water Department
 The City Council
 The Ward Councillor
 Don't know
41. Do you contribute anything towards the maintenance of the Communal Water Point, like cleaning or repairing?
 yes no
42. Do you pay anything for the maintenance of the Communal Water Point?
 yes, How much: MK per year
 no
43. What would you like to be changed at your Communal Water point?
 Standing area
 Platform
 Taps
 Cover, Lock
 Drain, Soak away pit
 Tap wall
 Height
 Bucket place
44. Why would you want the item mention above to be changed?
 Not working
 Useless
 Uneasy
 Dangerous, causing problems

45. Do you think it is fair to pay for the water?
 yes, because
 Treated water
 Near to my house
 Tast is good
 Causing no diseases
 Fresh
 Reliable
 Don't know
 no, because.
 Must be a social service provide by the government
 The nessecaries of life
 Other people are also not paying
 Don't know
46. If you know that a consumer is not paying, do you still allow her to draw water?
 yes no
47. Who keeps the money that you contribute or raise?
 - Name:
48. Are you happy with this arrangement?
 yes no
49. Who do you think should be responsible for the maintenance of the Communal Water Point?
 Committee
 Both Committee and Water Department
 Water Department
 Ward Councillor
 Both Community and Committee
 Others
 Don't know
50. If the Water Department is not able to assist in maintaining the Communal Water Point, what do you think will happen?
 The facility will break down
 The community will maintain it
 Another institution will have to take over
 Don't know
51. To who does the Communal Water Point belong?
 Ward Councillor(City Council)
 Community
 Water Department
 Don't know
52. Who keeps the key of the meter chamber?
 Name:
53. Do you think the committee is doing the things they are responsible for in your opinion?
 yes no
54. Do you think one of the committee members is taking to much responsibilities comparing to other committee members?
 yes no
55. If yes, who takes to much responsibilities?
 Chairman
 Vice chairman
 Secretary
 Vice Secretary
 Treasure
 Committee member
56. How much do you think a household can contribute each month for the water?
 MK
57. How do you check if members are paying?
 Observation on day of payment
 Going to their houses
 No checking
58. Are there people in the community who can not or will not pay the contribution?
 yes, how many:
 no
59. Is it good that every member pays the same amount for the water?
 yes no
60. Is it better to pay according to the amount of water used?
 yes no
61. Who should decide when and on what to spend the contribute money?
 Ward Councillor
 Water Department
 Community
 Committee

62. What are the responsibilities of the Committee?
- Keeping the Communal Water Point clean
 - Control the payment of each member
 - Chasing the children away from the Communal Water Point
 - Take care that the Community keeps the Communal Water Point clean
 - Welcome the persons who are not members and tell them to pay
 - Going to the Water Department office and report damages
 - Taking care people are not missusing the water
 - Keeping out persons who are not members from entering the Communal Water Point
63. What are the responsibilities of the Community?
- Keeping the Communal Water Point clean
 - Control the payment of each member
 - Chasing the children away from the Communal Water Point
 - Take care that the Community keeps the Communal Water Point clean
 - Welcome the persons who are not members and tell them to pay
 - Going to the Water Department office and report damages
 - Taking care people are not missusing the water
 - Keeping out persons who are not members from entering the Communal Water Point
64. To whom is the committee responsible?
- Ward Councillor
 - Water Department
 - Mr. Msukwa(Monitoring Assistant)
 - City Council
 - Community
 - Don't know
65. How often does the Community hold meetings?
- Weekly
 - Once in the 2 weeks
 - Monthly
 - Once every 2 months
 - 4 times a year
 - Once a year
 - Less than once a year
 - Only when there is a problem
 - Never
 - Don't know
66. How frequently have family members malaria?
- Weekly
 - Once in the 2 weeks
 - Monthly
 - Once every 2 months
 - 4 times a year
 - Once a year
 - Less than once a year
 - Only when there is a problem
 - Never
 - Don't know
67. How frequently have family members diarrhoea?
- Weekly
 - Once in the 2 weeks
 - Monthly
 - Once every 2 months
 - 4 times a year
 - Once a year
 - Less than once a year
 - Only when there is a problem
 - Never
 - Don't know
68. Was there ever any kind of education in the community?
- yes, When was the last time it was given, year:
 - no
69. What was the education talk about?
- Sanitation
 - Water Supply
 - Raising Children
 - Cooking and Washing
 - Others
70. Who gave this education talk?
- Volunteers
 - The Ministry of Health
 - The City Council
 - The Water Department
 - Others
71. Do you wash your clothes, dishes or children at the Communal Water point?
- yes
 - no

72. Do you think the Communal Water Point is an improvement if you compare it with the time you were using other sources?
 yes no
73. Do you own your house?
 yes no
74. Are you renting your house?
 yes no
75. For how long do you live in the house you're in now?
 3 months
 Half year
 1 year
 2 years
 3-5 years
 6 years and longer

The following tables give the results of the questionnaires. The questions are assorted on their indicators.

During the 7 meetings hold, none of the women or men refused to fill in the questionnaire unless she or he was illiterate.

| Number of people who participated on the questionnaire | | | | | | | | |
|--|----|----|-----|----|----|----|----|-------|
| CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Total |
| Number of participants | 35 | 23 | 47 | 45 | 21 | 49 | 53 | 273 |
| Percentage of female participants | 67 | 96 | 77 | 82 | 52 | 88 | 94 | 85 |
| Percentage of male participants * | 3 | 4 | 23 | 18 | 48 | 12 | 6 | 15 |
| Category of age (Y:young, D:diverse, O:old) | Y | D | D | D | Y | D | O | |
| Number of households using the CWP | 57 | 49 | 120 | 90 | 22 | 55 | 81 | 474 |
| Percentage of households participating | 61 | 47 | 39 | 50 | 95 | 89 | 65 | 58 |
| Number of committee members participating | 3 | 3 | 2 | 1 | 3 | ? | 6 | 18 |

* The wives of the male participants were not present during the meeting. This is checked on the name, number of person in house and renting of house.

| 2. Sex of interviewee | | | | | | | | |
|-----------------------|----|----|----|----|----|----|----|-----|
| CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Female % | 66 | 87 | 68 | 62 | 52 | 82 | 83 | 71 |
| Male % | 3 | 4 | 23 | 18 | 48 | 12 | 6 | 16 |
| No answer % | 31 | 4 | 9 | 16 | 0 | 6 | 8 | 11 |
| False % | 0 | 4 | 0 | 4 | 0 | 0 | 4 | 2 |

| 11. Who collects the water? | | | | | | | | |
|------------------------------|-----|----|-----|-----|-----|-----|-----|-----|
| CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Children, girls % | 11 | 0 | 2 | 4 | 0 | 8 | 4 | 4 |
| Children, boys % | 6 | 0 | 30 | 27 | 14 | 16 | 26 | 17 |
| Adults, females % | 66 | 43 | 51 | 62 | 71 | 55 | 74 | 60 |
| Adults, males % | 20 | 9 | 9 | 4 | 10 | 14 | 8 | 11 |
| Every one in the household % | 9 | 35 | 19 | 18 | 19 | 16 | 13 | 18 |
| No answer % | 11 | 17 | 9 | 2 | 5 | 12 | 2 | 8 |
| More than one answer % | -23 | -4 | -19 | -18 | -19 | -22 | -25 | 12 |

INDICATOR 1

| 3. How many people are living in your house? | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Indic. 1 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Adult(average) | | 2.5 | 3.5 | 2.4 | 2.2 | 2.0 | 2.3 | 2.8 | 2.5 |
| Adult(stand.dev.) | | 0.9 | 1.8 | 0.9 | 0.9 | 0.5 | 0.9 | 4.2 | 1.4 |
| Adult(no answer) % | | 20 | 4 | 4 | 11 | 0 | 6 | 2 | 7 |
| Child(average) | | 3.6 | 3.2 | 3.6 | 2.9 | 3.2 | 2.9 | 3.1 | 3.2 |
| Child(stand. dev.) | | 2.6 | 2.2 | 1.9 | 1.9 | 2.0 | 1.8 | 1.8 | 2.0 |
| Child(no answer) % | | 20 | 4 | 11 | 13 | 0 | 4 | 6 | 8 |

| 10. How much water is collected each day? | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Indic. 1 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Buckets(average) | | 6.4 | 3.3 | 5.1 | 5.1 | 5.0 | 4.8 | 5.9 | 5.1 |
| Buckets(stand. dev.) | | 4.3 | 3.3 | 3.0 | 2.4 | 2.4 | 2.1 | 3.2 | 3.0 |
| No answer % | | 6 | 13 | 0 | 4 | 0 | 6 | 4 | 4.7 |

INDICATOR2

| 13. How often do you clean your bucket? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Every time you fill the bucket % | | 37 | 65 | 70 | 76 | 62 | 39 | 55 | 58 |
| Once a day % | | 37 | 22 | 19 | 7 | 29 | 43 | 19 | 25 |
| Once a week % | | 3 | 0 | 0 | 0 | 0 | 2 | 4 | 1 |
| Never % | | 3 | 0 | 4 | 0 | 0 | 0 | 2 | 1 |
| No answer % | | 20 | 9 | 6 | 11 | 0 | 12 | 17 | 11 |
| False % | | 0 | 4 | 0 | 7 | 10 | 4 | 4 | 4 |

| 14. Do you wash your clothes, dishes or children at the Communal Water Point? | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 11 | 0 | 6 | 7 | 10 | 4 | 13 | 7 |
| No % | | 71 | 83 | 85 | 82 | 90 | 92 | 77 | 83 |
| No answer % | | 17 | 17 | 9 | 9 | 0 | 4 | 9 | 9 |
| False % | | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 1 |

| 15. How do you store your water? | | | | | | | | | |
|----------------------------------|-----|-----|----|----|-----|-----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Just in the bucket % | | 60 | 65 | 74 | 78 | 90 | 84 | 74 | 75 |
| In drums % | | 29 | 26 | 11 | 9 | 14 | 4 | 13 | 15 |
| In pot and pans % | | 17 | 4 | 4 | 11 | 14 | 4 | 2 | 8 |
| In a tank % | | 0 | 0 | 2 | 4 | 0 | 0 | 2 | 1 |
| Others % | | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 1 |
| No answer % | | 14 | 13 | 11 | 4 | 0 | 12 | 11 | 9 |
| More than one answer % | | -20 | -9 | -2 | -13 | -19 | -4 | -4 | -10 |

| 16. Are you boiling your water before consuming? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| No % | | 46 | 39 | 43 | 29 | 48 | 59 | 34 | 43 |
| Yes % | | 43 | 52 | 45 | 56 | 52 | 37 | 55 | 49 |
| No answer % | | 9 | 9 | 11 | 13 | 0 | 4 | 11 | 8 |
| False % | | 3 | 0 | 2 | 2 | 0 | 0 | 0 | 1 |

| 17. Do you think your Communal Water Point is clean? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 69 | 78 | 70 | 69 | 95 | 94 | 91 | 81 |
| No % | | 26 | 13 | 23 | 20 | 5 | 0 | 6 | 13 |
| No answer % | | 3 | 9 | 6 | 7 | 0 | 6 | 4 | 5 |
| False % | | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 1 |

| 19. How often do you clean the surroundings of the Communal Water Point? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Daily % | | 57 | 37 | 72 | 77 | 81 | 76 | 66 | 74 |
| Weekly % | | 3 | 4 | 15 | 2 | 10 | 12 | 11 | 8 |
| Once in the 2 weeks % | | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 1 |
| Monthly % | | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| Once every 2 months % | | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |
| Once a year % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than once a year % | | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Only when there is a problem % | | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Never % | | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| Do not know % | | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| No answer % | | 11 | 0 | 11 | 9 | 5 | 2 | 6 | 6 |
| False % | | 9 | 9 | 2 | 11 | 5 | 6 | 4 | 7 |

| 21. What do you think about the water of the Communal Water Point? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| It is causing diseases | | | | | | | | | |
| Yes % | | 11 | 4 | 13 | 23 | 0 | 8 | 6 | 9 |
| No % | | 14 | 26 | 36 | 20 | 48 | 35 | 25 | 29 |
| No answer % | | 74 | 70 | 51 | 57 | 52 | 57 | 70 | 62 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Does it taste good | | | | | | | | | |
| Yes % | | 77 | 78 | 77 | 64 | 81 | 71 | 79 | 75 |
| No % | | 0 | 0 | 6 | 0 | 5 | 0 | 4 | 2 |
| No answer % | | 23 | 22 | 17 | 36 | 14 | 29 | 17 | 23 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Do you need a lot of soap | | | | | | | | | |
| Yes % | | 3 | 9 | 21 | 11 | 19 | 24 | 9 | 14 |
| No % | | 11 | 22 | 23 | 16 | 24 | 10 | 19 | 18 |
| No answer % | | 86 | 70 | 53 | 73 | 57 | 65 | 72 | 68 |
| False % | | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |

| 35. What do you think about the water other than the Communal Water Point? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 2 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Is it causing diseases | | | | | | | | | |
| Yes % | | 54 | 61 | 66 | 56 | 67 | 57 | 65 | 61 |
| No % | | 6 | 4 | 13 | 7 | 10 | 12 | 11 | 9 |
| No answer % | | 40 | 35 | 21 | 38 | 24 | 31 | 25 | 31 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Does it taste good | | | | | | | | | |
| Yes % | | 9 | 22 | 6 | 9 | 14 | 2 | 17 | 11 |
| No % | | 9 | 13 | 36 | 22 | 24 | 37 | 15 | 22 |
| No answer % | | 83 | 65 | 57 | 69 | 62 | 61 | 68 | 66 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Do you need a lot of soap | | | | | | | | | |
| Yes % | | 6 | 35 | 36 | 11 | 33 | 24 | 17 | 23 |
| No % | | 11 | 4 | 4 | 16 | 10 | 12 | 8 | 9 |
| No answer % | | 83 | 61 | 60 | 73 | 57 | 63 | 75 | 67 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INDICATOR 3

| 28. When was the last time there was no water at the Communal Water Point? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 3 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Now % | | 9 | 22 | 6 | 0 | 14 | 0 | 2 | 8 |
| Less than one week ago % | | 6 | 9 | 57 | 25 | 14 | 27 | 15 | 22 |
| 1 to 2 weeks ago % | | 0 | 9 | 6 | 23 | 19 | 12 | 6 | 11 |
| 3 to 4 weeks ago % | | 9 | 0 | 2 | 9 | 10 | 12 | 9 | 7 |
| 5 to 12 weeks ago % | | 9 | 13 | 0 | 16 | 19 | 16 | 17 | 13 |
| Can not remember % | | 40 | 26 | 13 | 9 | 10 | 20 | 42 | 23 |
| No answer % | | 26 | 22 | 15 | 16 | 10 | 10 | 9 | 15 |
| False % | | 3 | 0 | 0 | 0 | 5 | 2 | 0 | 1 |

| 29. Do you know exactly what went wrong when there was no water? | | | | | | | | | |
|--|-----|----|----|----|----|-----|----|----|-----|
| Indic. 3 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Lack of pressure % | | 20 | 39 | 70 | 59 | 71 | 29 | 26 | 45 |
| Repairs at the main line % | | 26 | 26 | 6 | 23 | 14 | 18 | 30 | 20 |
| Did not pay the bill % | | 3 | 0 | 4 | 5 | 10 | 4 | 11 | 5 |
| Do not know % | | 29 | 30 | 4 | 11 | 14 | 39 | 25 | 22 |
| No answer % | | 29 | 4 | 13 | 11 | 5 | 8 | 9 | 11 |
| More than one answer % | | -9 | 0 | 0 | -9 | -14 | 0 | -2 | -1 |
| False % | | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 1 |

| 30. How long did it take before the supply was restored? (Only one answer possible) | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|
| Indic. 3 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| A few hours % | | 17 | 17 | 17 | 7 | 52 | 47 | 38 | 28 |
| The whole day % | | 20 | 22 | 60 | 16 | 29 | 20 | 23 | 27 |
| A few days % | | 11 | 4 | 4 | 13 | 5 | 6 | 8 | 7 |
| 1 Week % | | 6 | 0 | 0 | 27 | 0 | 0 | 2 | 5 |
| 1 to 3 weeks % | | 3 | 0 | 0 | 7 | 5 | 4 | 4 | 3 |
| 4 to 8 weeks % | | 0 | 9 | 0 | 13 | 5 | 2 | 2 | 4 |
| Not yet rectified % | | 0 | 22 | 0 | 0 | 0 | 2 | 0 | 3 |
| Can not remember % | | 11 | 17 | 2 | 0 | 0 | 8 | 11 | 7 |
| No answer % | | 29 | 4 | 11 | 7 | 5 | 10 | 9 | 11 |
| False % | | 3 | 4 | 6 | 11 | 0 | 0 | 4 | 4 |

INDICATOR 4

| 8. How far away is the Communal Water Point from your house? | | | | | | | | | |
|--|-----|-----|-----|-----|-----|----|----|-----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Meters(average) | | 97 | 132 | 192 | 127 | 16 | 22 | 110 | 99 |
| Meters(stand. dev.) | | 155 | 442 | 258 | 168 | 23 | 40 | 229 | 188 |
| No answer % | | 14 | 13 | 6 | 4 | 5 | 31 | 11 | 12 |

| 9. How long does it take to go to the Communal Water Point? | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Minutes(average) | | 14 | 6 | 35 | 26 | 12 | 15 | 15 | 18 |
| Minutes(stand. dev.) | | 15 | 7 | 37 | 30 | 26 | 23 | 15 | 22 |
| No answer % | | 17 | 17 | 15 | 4 | 5 | 12 | 8 | 11 |

| 18. Do you contribute anything towards the maintenance of the Communal Water Point, like cleaning or repairing? | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 40 | 43 | 62 | 61 | 90 | 61 | 45 | 57 |
| No % | | 40 | 39 | 23 | 32 | 5 | 24 | 45 | 30 |
| No answer % | | 17 | 17 | 15 | 7 | 5 | 14 | 9 | 12 |
| False % | | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| 23. Are there times the Communal Water Point is broken? | | | | | | | | | |
|---|-----|----|----|----|----|-----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 66 | 83 | 85 | 93 | 100 | 76 | 74 | 82 |
| - and reported it % | | 24 | 47 | 70 | 41 | 48 | 43 | 33 | 44 |
| - and not reported it % | | 3 | 5 | 3 | 12 | 0 | 14 | 18 | 8 |
| - no answer % | | 72 | 47 | 28 | 46 | 52 | 43 | 49 | 48 |
| No % | | 3 | 9 | 2 | 0 | 0 | 14 | 15 | 6 |
| No answer % | | 14 | 9 | 13 | 7 | 0 | 10 | 6 | 8 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 |

| 24. If yes, how frequently was the Communal Water Point broken? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| More than once a week % | | 69 | 39 | 15 | 34 | 29 | 18 | 8 | 30 |
| Once a month % | | 20 | 17 | 17 | 23 | 14 | 22 | 2 | 16 |
| Once every three months % | | 23 | 13 | 53 | 27 | 48 | 29 | 17 | 30 |
| Rare % | | 11 | 4 | 0 | 2 | 0 | 4 | 13 | 5 |
| Very rare % | | 6 | 4 | 0 | 5 | 5 | 8 | 49 | 11 |
| No answer % | | 31 | 22 | 15 | 7 | 5 | 16 | 9 | 15 |
| False % | | 6 | 0 | 0 | 2 | 0 | 2 | 2 | 2 |

| 25. What is the usual cause of such problems? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Taps break down % | | 9 | 4 | 13 | 7 | 48 | 18 | 6 | 15 |
| People steal parts % | | 23 | 22 | 55 | 14 | 10 | 8 | 26 | 23 |
| Breakdown in the meter chamber % | | 20 | 39 | 4 | 52 | 29 | 37 | 25 | 29 |
| Do not know % | | 17 | 17 | 4 | 7 | 10 | 10 | 30 | 14 |
| No answer % | | 23 | 4 | 15 | 11 | 5 | 27 | 13 | 14 |
| False % | | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 5 |

| 32. Why are you taking water from a alternative source other than the Communal Water Point? | | | | | | | | | |
|---|-----|-----|----|----|-----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Taste % | | 3 | 4 | 0 | 4 | 0 | 2 | 0 | 2 |
| Color % | | 3 | 0 | 0 | 2 | 0 | 0 | 4 | 1 |
| Breakdown Communal Water Point % | | 43 | 74 | 77 | 80 | 76 | 71 | 57 | 68 |
| Better for washing % | | 14 | 9 | 0 | 2 | 5 | 8 | 2 | 6 |
| Cheaper % | | 3 | 0 | 2 | 7 | 10 | 2 | 2 | 4 |
| Healthier % | | 0 | 0 | 2 | 4 | 10 | 2 | 6 | 3 |
| Others % | | 3 | 4 | 4 | 4 | 0 | 2 | 8 | 4 |
| No answer % | | 40 | 9 | 15 | 7 | 5 | 14 | 21 | 16 |
| More than one answer % | | -14 | -4 | 0 | -11 | -5 | -2 | -2 | -5 |

| 33. How far away is the alternative water source, not including the Communal Water Point, from your house? | | | | | | | | | |
|--|-----|-----|-----|-----|-----|----|----|-----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Meters (average) | | 59 | 121 | 362 | 157 | 28 | 44 | 46 | 117 |
| Meters (stand. dev.) | | 119 | 120 | 909 | 161 | 36 | 80 | 149 | 225 |
| No answer % | | 46 | 9 | 17 | 16 | 5 | 37 | 17 | 21 |

| 34. How long does it take to go to the water source, not including the Communal Water Point, fetch water and come back? | | | | | | | | | |
|---|-----|----|----|-----|-----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Minutes (average) | | 21 | 19 | 95 | 86 | 21 | 21 | 14 | 40 |
| Minutes (stand. dev.) | | 30 | 15 | 123 | 128 | 20 | 20 | 13 | 50 |
| No answer % | | 49 | 13 | 19 | 22 | 5 | 18 | 21 | 21 |

| 40. What would you like to be changed at your Communal Water Point? | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Nothing % | | 20 | 13 | 15 | 11 | 33 | 18 | 13 | 18 |
| Standing area % | | 9 | 9 | 13 | 18 | 10 | 2 | 15 | 11 |
| Platform % | | 11 | 9 | 4 | 11 | 0 | 2 | 13 | 7 |
| Taps % | | 14 | 43 | 11 | 40 | 14 | 6 | 8 | 19 |
| Cover, lock % | | 0 | 13 | 9 | 11 | 10 | 18 | 26 | 12 |
| Drain, soak away pit % | | 9 | 26 | 17 | 29 | 19 | 31 | 17 | 21 |
| Tap wall % | | 0 | 0 | 4 | 7 | 0 | 2 | 2 | 2 |
| Height % | | 3 | 4 | 0 | 4 | 5 | 0 | 13 | 4 |
| Bucket place % | | 3 | 26 | 30 | 16 | 24 | 10 | 17 | 18 |
| No answer % | | 43 | 17 | 19 | 7 | 5 | 18 | 9 | 17 |
| More than one answer % | | -11 | -52 | -23 | -58 | -19 | -12 | -34 | -30 |
| False % | | 0 | 0 | 2 | 4 | 0 | 6 | 0 | 2 |

| 41. Why would you want the item mention above to be changed? | | | | | | | | | |
|--|-----|----|-----|----|-----|----|----|----|-----|
| Indic. 4 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Not working % | | 31 | 43 | 26 | 36 | 24 | 31 | 9 | 29 |
| Useless % | | 3 | 9 | 0 | 13 | 14 | 12 | 4 | 8 |
| Uneasy % | | 23 | 26 | 13 | 38 | 24 | 14 | 25 | 23 |
| Dangerous, causing problems % | | 9 | 26 | 30 | 18 | 29 | 16 | 49 | 25 |
| No answer % | | 43 | 9 | 34 | 7 | 10 | 29 | 17 | 21 |
| More than one answer % | | 9 | -13 | -2 | -11 | 0 | -2 | -4 | -6 |

INDICATOR 5

| 22. Which household members are using the water of the Communal Water Point for drinking and personal washing? | | | | | | | | | |
|--|-----|-----|------|-----|-----|-----|-----|-----|-----|
| Indic. 5 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Mother % | | 77 | 83 | 74 | 93 | 86 | 82 | 85 | 83 |
| Father % | | 34 | 70 | 34 | 43 | 48 | 53 | 44 | 47 |
| Children % | | 37 | 78 | 32 | 34 | 38 | 39 | 47 | 44 |
| No answer % | | 11 | 22 | 17 | 7 | 5 | 10 | 9 | 12 |
| More than one answer % | | -60 | -152 | -57 | -77 | -76 | -84 | -89 | -85 |

INDICATOR 6

also - 2.1: table
 was 2.7? to be removed!

| 12. For what purpose is the tapwater collected being used? | | | | | | | | | |
|--|-----|-----|-----|------|-----|-----|------|-----|------|
| Indic. 6 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Drinking and cooking | | | | | | | | | |
| - average | | 2.3 | 3.3 | 2.3 | 2.5 | 2.4 | 2.7 | 2.9 | 2.6 |
| - standard deviation | | 1.9 | 2.7 | 1.2 | 1.5 | 1.9 | 2.0 | 2.1 | 1.9 |
| - no answer % | | 9 | 22 | 9 | 7 | 5 | 16 | 13 | 11.6 |
| Washing of food and utensils | | | | | | | | | |
| - average | | 2.6 | 2.1 | 1.7 | 1.9 | 1.7 | 1.5 | 2.2 | 2.0 |
| - standard deviation | | 2.6 | 1.5 | 1.3 | 1.4 | 0.8 | 1.3 | 1.5 | 1.5 |
| - no answer % | | 23 | 39 | 11 | 20 | 10 | 25 | 17 | 20.7 |
| Washing of clothes | | | | | | | | | |
| - average | | 3.0 | 3.3 | 6.0 | 3.4 | 2.5 | 3.2 | 3.4 | 3.5 |
| - stand deviation | | 1.6 | 1.3 | 7.8 | 1.8 | 1.3 | 3.0 | 1.8 | 2.7 |
| - no answer % | | 40 | 57 | 21 | 25 | 24 | 29 | 17 | 30.4 |
| Watering of animals | | | | | | | | | |
| - average | | 0.5 | 0 | 2.7 | 2.8 | 1 | 1.3 | 2.3 | 1.5 |
| - standard deviation | | 0.9 | 0 | 3.2 | 1.9 | 0 | 0.5 | 1.8 | 1.2 |
| - no answer % | | 69 | 100 | 72 | 78 | 95 | 82 | 83 | 68.4 |
| Making bricks | | | | | | | | | |
| - average | | 4.3 | 12 | 15.3 | 77 | 7.5 | 9.0 | 8.1 | 19.0 |
| - standard deviation | | 7.5 | 0 | 17.9 | 153 | 3.5 | 10.4 | 5.9 | 28.3 |
| - no answer % | | 66 | 91 | 83 | 78 | 90 | 86 | 85 | 82.7 |
| Watering of the garden | | | | | | | | | |
| - average | | 2.6 | 4.0 | 5.0 | 7.5 | 2.0 | 2.8 | 3.5 | 3.9 |
| - standard deviation | | 3.3 | 0 | 5.3 | 5.6 | 1.4 | 2.2 | 2.0 | 2.8 |
| - no answer % | | 74 | 96 | 79 | 71 | 90 | 82 | 81 | 81.9 |
| Personal Washing* | | | | | | | | | |
| - average | | | 2.6 | | 2.5 | 1.7 | 1.6 | | 2.1 |
| - standard deviation | | | 2.6 | | 1.5 | 0.8 | 1.4 | | 1.6 |
| - no answer % | | | 70 | | 64 | 71 | 59 | | 66.0 |
| No answer | | 3 | 22 | 6 | 2 | 5 | 16 | 13 | 9.6 |

* We discovered after three questionnaires that the answers were wrongly translated. We adjusted the questionnaire.

| 31. Please, mention all sources of water supply where you take water from! | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|----|-----|
| Indic. 6 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Shallow well % | | 6 | 22 | 15 | 38 | 19 | 33 | 17 | 21 |
| River % | | 11 | 17 | 15 | 7 | 0 | 2 | 2 | 8 |
| Private connection % | | 20 | 17 | 15 | 11 | 52 | 37 | 23 | 25 |
| Rain water % | | 6 | 0 | 2 | 11 | 5 | 0 | 0 | 3 |
| Hand pump % | | 11 | 9 | 0 | 2 | 5 | 8 | 4 | 6 |
| Communal Water Point % | | 26 | 48 | 53 | 47 | 33 | 29 | 47 | 40 |
| Others % | | 3 | 13 | 2 | 7 | 0 | 6 | 4 | 5 |
| No answer % | | 29 | 4 | 13 | 4 | 0 | 6 | 9 | 9 |
| More than one answer % | | -11 | -30 | -15 | -27 | -14 | -18 | -6 | -17 |

INDICATOR 7

| 4. Are you renting your house? | | | | | | | | | |
|--------------------------------|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 46 | 13 | 49 | 51 | 24 | 43 | 43 | 38 |
| No % | | 49 | 78 | 47 | 42 | 76 | 53 | 47 | 56 |
| No answer % | | 6 | 9 | 4 | 4 | 0 | 4 | 8 | 5 |
| False % | | 0 | 0 | 0 | 2 | 5 | 0 | 2 | 1 |

| 5. For how long do you live in the house you are living in now? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| 3 months % | | 3 | 0 | 9 | 13 | 10 | 10 | 8 | 8 |
| Half a year % | | 9 | 17 | 4 | 7 | 5 | 12 | 6 | 9 |
| 1 year % | | 11 | 0 | 11 | 11 | 10 | 14 | 13 | 10 |
| 2 years % | | 17 | 9 | 30 | 22 | 19 | 12 | 9 | 17 |
| 3-5 year % | | 17 | 22 | 32 | 9 | 14 | 16 | 32 | 20 |
| 6 year and longer % | | 37 | 39 | 28 | 31 | 33 | 27 | 23 | 31 |
| No answer % | | 6 | 13 | 9 | 2 | 0 | 6 | 8 | 6 |
| False % | | 0 | 0 | 0 | 4 | 10 | 2 | 2 | 3 |

| 7. How many relatives of you are in the same Communal Water Point Community? | | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|--|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg | |
| Relatives % | | 29 | 30 | 45 | 38 | 43 | 51 | 36 | 39 | |
| No-relatives % | | 0 | 70 | 30 | 49 | 38 | 31 | 40 | 37 | |
| No answer % | | 71 | 0 | 26 | 13 | 19 | 18 | 25 | 25 | |

| 26. Who undertook the repairs? (Only one answer possible) | | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|--|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg | |
| Committee % | | 0 | 0 | 11 | 5 | 43 | 6 | 2 | 10 | |
| A community member % | | 0 | 0 | 4 | 7 | 0 | 12 | 0 | 3 | |
| A local mechanic % | | 3 | 0 | 2 | 0 | 10 | 2 | 0 | 2 | |
| Water Department % | | 49 | 65 | 51 | 73 | 38 | 39 | 72 | 55 | |
| Not yet repaired % | | 0 | 13 | 2 | 5 | 0 | 6 | 8 | 5 | |
| Do not know % | | 6 | 4 | 0 | 0 | 0 | 18 | 4 | 5 | |
| No answer % | | 40 | 13 | 13 | 9 | 0 | 16 | 9 | 14 | |
| False % | | 3 | 4 | 17 | 2 | 10 | 0 | 8 | 6 | |

| 27. Did you report the breakdown to the Water Department? | | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|--|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg | |
| No % | | 17 | 9 | 6 | 2 | 0 | 8 | 11 | 8 | |
| Yes % | | 49 | 78 | 81 | 91 | 95 | 76 | 72 | 77 | |
| No answer % | | 34 | 13 | 13 | 7 | 0 | 16 | 17 | 14 | |
| False % | | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | |

| 39. Who said that you have to pay for the water from the Communal Water Point? | | | | | | | | | | |
|--|-----|----|----|-----|-----|-----|----|-----|-----|--|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg | |
| The committee % | | 11 | 26 | 17 | 7 | 19 | 22 | 26 | 18 | |
| Mr. Msukwa (Monitoring Assistant) % | | 9 | 9 | 6 | 2 | 5 | 4 | 25 | 9 | |
| The Water Department % | | 29 | 52 | 62 | 80 | 71 | 55 | 64 | 59 | |
| The City Council % | | 0 | 0 | 2 | 7 | 10 | 2 | 6 | 4 | |
| The Ward Councillor % | | 0 | 4 | 2 | 2 | 0 | 0 | 0 | 1 | |
| Do not know % | | 6 | 13 | 4 | 2 | 5 | 6 | 2 | 5 | |
| No answer % | | 43 | 4 | 17 | 11 | 0 | 10 | 4 | 13 | |
| More than one answer % | | 0 | -9 | -11 | -13 | -10 | -2 | -26 | -10 | |
| False % | | 3 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | |

| 43. If you know that a consumer is not paying, do you still allow her to draw water? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 11 | 4 | 6 | 11 | 5 | 10 | 11 | 8 |
| No % | | 54 | 87 | 79 | 78 | 90 | 78 | 81 | 78 |
| No answer % | | 34 | 9 | 15 | 9 | 5 | 12 | 8 | 13 |
| False % | | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |

| 44. Who do you think should be responsible for the maintenance of the Communal Water Point? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Committee % | | 6 | 0 | 9 | 2 | 19 | 2 | 8 | 7 |
| Water Department % | | 43 | 91 | 70 | 80 | 67 | 71 | 83 | 72 |
| Community % | | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Ward Councillor % | | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 1 |
| Others % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Do not know % | | 6 | 0 | 2 | 0 | 10 | 4 | 0 | 3 |
| No answer % | | 40 | 4 | 15 | 7 | 0 | 10 | 2 | 11 |
| False % | | 3 | 4 | 2 | 9 | 5 | 12 | 8 | 6 |

| 45. To whom does the Communal Water Point belong? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Ward Councillor % | | 0 | 0 | 4 | 0 | 0 | 10 | 9 | 3 |
| Community % | | 9 | 4 | 17 | 7 | 38 | 22 | 21 | 17 |
| Water Department % | | 46 | 83 | 62 | 69 | 43 | 45 | 57 | 58 |
| Do not know % | | 6 | 4 | 4 | 0 | 5 | 4 | 6 | 4 |
| No answer % | | 34 | 4 | 13 | 13 | 10 | 14 | 6 | 13 |
| False % | | 6 | 4 | 0 | 11 | 5 | 4 | 2 | 5 |

| 46. If the Water Department is not able to assist in maintaining the Communal Water Point, what do you think will happen? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| The facility will break down % | | 23 | 57 | 36 | 56 | 48 | 51 | 38 | 44 |
| The community will maintain it % | | 6 | 0 | 30 | 4 | 29 | 2 | 17 | 13 |
| Another institution will have to take over % | | 17 | 22 | 4 | 20 | 5 | 0 | 17 | 12 |
| Do not know % | | 11 | 4 | 9 | 2 | 10 | 27 | 23 | 12 |
| No answer % | | 40 | 13 | 21 | 16 | 10 | 16 | 6 | 17 |
| False % | | 3 | 4 | 0 | 2 | 0 | 4 | 0 | 2 |

| 47. Do you think the committee is doing the things they are responsible for in your opinion? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Yes % | | 40 | 30 | 66 | 67 | 76 | 61 | 72 | 59 |
| No % | | 29 | 52 | 19 | 22 | 14 | 24 | 25 | 26 |
| No answer % | | 31 | 9 | 15 | 11 | 0 | 14 | 4 | 12 |
| False % | | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 1 |

| 50. Who should decide when and on what to spend the contributed money? (Only one answer possible) | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Ward Concillor % | | 0 | 0 | 0 | 2 | 5 | 6 | 11 | 3 |
| Water Department % | | 54 | 61 | 32 | 62 | 62 | 53 | 57 | 54 |
| Community % | | 3 | 4 | 6 | 7 | 10 | 4 | 2 | 5 |
| Committee % | | 3 | 17 | 45 | 16 | 19 | 16 | 17 | 19 |
| No answer % | | 40 | 4 | 17 | 11 | 5 | 20 | 13 | 16 |
| False % | | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 1 |

| 51. What are the responsibilities of the Community? | | | | | | | | | |
|--|-----|-----|------|-----|------|-----|-----|-----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Keeping the Communal Water Point clean % | | 37 | 78 | 66 | 71 | 71 | 71 | 68 | 66 |
| Control the payment of each member % | | 11 | 43 | 32 | 29 | 19 | 27 | 38 | 28 |
| Welcome the persons who are not members and tell them to pay % | | 14 | 43 | 21 | 31 | 38 | 16 | 26 | 27 |
| Going to the Water Department office and report damages % | | 37 | 57 | 30 | 56 | 19 | 31 | 32 | 37 |
| No answer % | | 37 | 4 | 15 | 18 | 10 | 10 | 6 | 14 |
| More than one answer % | | -37 | -135 | -64 | -104 | -57 | -55 | -70 | -75 |

| 52. To whom is the committee responsible? | | | | | | | | | |
|---|-----|----|----|----|-----|----|-----|-----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Ward Concillor % | | 0 | 0 | 2 | 2 | 5 | 0 | 11 | 3 |
| Water Department % | | 26 | 61 | 49 | 87 | 43 | 51 | 34 | 50 |
| Mr. Msukwa (Monitoring Assistant) % | | 0 | 17 | 15 | 9 | 24 | 18 | 34 | 17 |
| City Council % | | 0 | 9 | 0 | 18 | 10 | 6 | 4 | 7 |
| Community % | | 23 | 9 | 0 | 0 | 10 | 4 | 8 | 8 |
| Do not know % | | 6 | 9 | 13 | 2 | 10 | 16 | 11 | 10 |
| No answer % | | 43 | 4 | 23 | 13 | 5 | 16 | 8 | 16 |
| More than one answer % | | 0 | -9 | -2 | -22 | -5 | -12 | -13 | -9 |
| False % | | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |

| 53. How often does the Community hold meetings? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 7 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Weekly % | | 6 | 4 | 6 | 4 | 19 | 0 | 4 | 6 |
| Once in the 2 weeks % | | 9 | 0 | 9 | 4 | 10 | 6 | 9 | 7 |
| Monthly % | | 9 | 0 | 26 | 36 | 14 | 18 | 26 | 18 |
| Once every two months % | | 0 | 4 | 13 | 0 | 10 | 0 | 9 | 5 |
| 4 times a year % | | 3 | 0 | 9 | 4 | 0 | 0 | 4 | 3 |
| Once a year % | | 6 | 9 | 19 | 2 | 0 | 2 | 2 | 6 |
| Less than once a year % | | 0 | 0 | 0 | 2 | 5 | 2 | 0 | 1 |
| Only when there is a problem % | | 0 | 26 | 4 | 16 | 29 | 16 | 9 | 14 |
| Never % | | 11 | 35 | 0 | 0 | 0 | 4 | 2 | 7 |
| Do not know % | | 14 | 13 | 0 | 4 | 0 | 33 | 21 | 12 |
| No answer % | | 43 | 4 | 13 | 11 | 10 | 12 | 8 | 14 |
| False % | | 0 | 4 | 2 | 16 | 5 | 6 | 6 | 6 |

INDICATOR 8

| 6. What is your income per month? e.g. Whether working, whether business. | | | | | | | | | |
|---|-----|-----|----|-----|----|----|-----|----|-----|
| Indic. 8 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Kwacha(average)* | | 178 | 99 | 162 | 88 | 75 | 112 | 70 | 112 |
| Kwacha(stand. dev) | | 113 | 59 | 198 | 44 | 30 | 64 | 49 | 80 |
| No answer % | | 74 | 57 | 36 | 38 | 43 | 53 | 53 | 51 |

All amounts lower than MK 20 = are not taken serious and left out of consideration

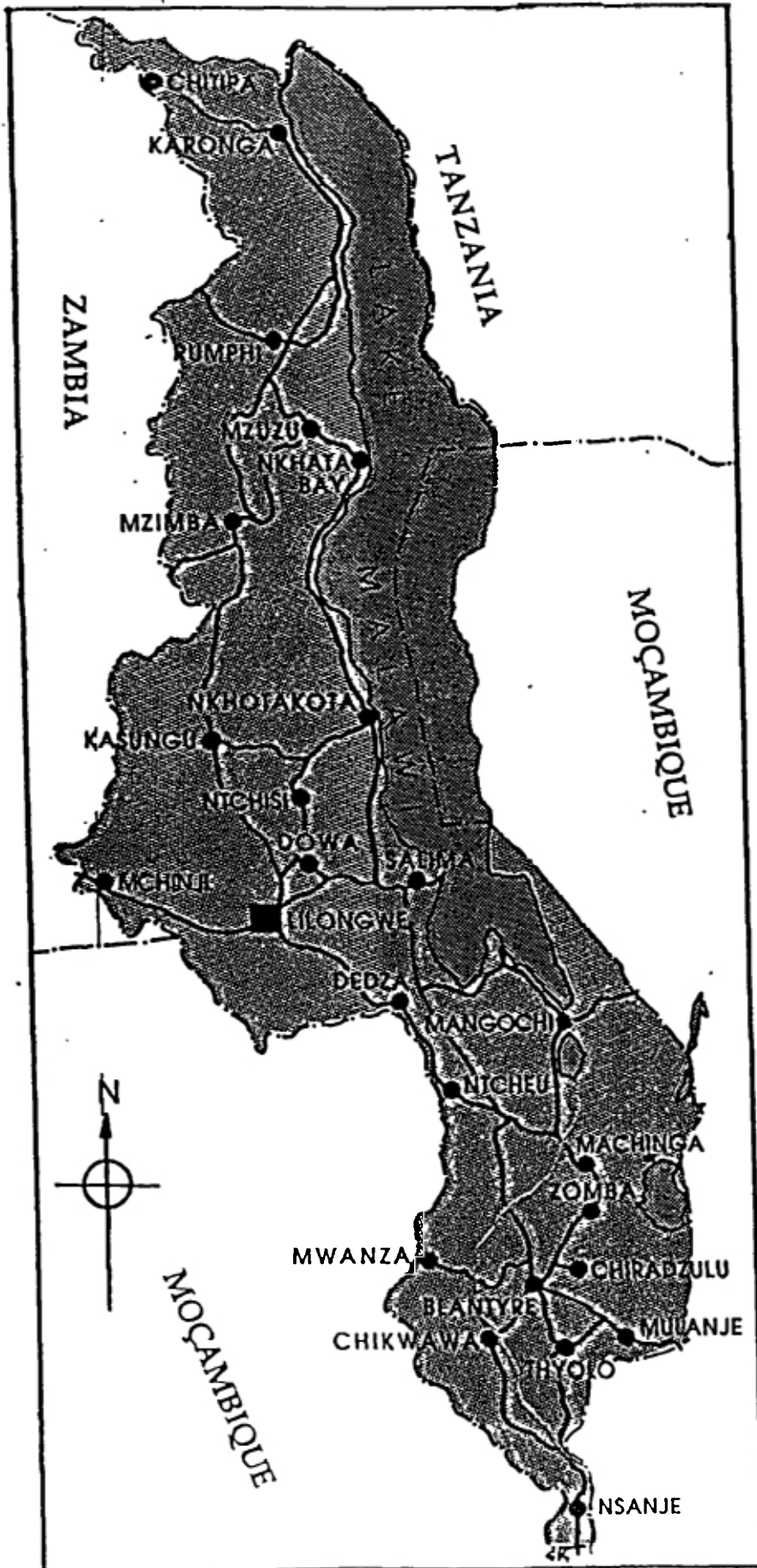
| 48. How do you check if members are paying? (Only one answer possible) | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 8 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| No checking % | | 11 | 0 | 2 | 2 | 5 | 2 | 9 | 4 |
| Observation on day of payment % | | 51 | 70 | 74 | 80 | 81 | 63 | 68 | 70 |
| Going to their houses % | | 3 | 0 | 11 | 2 | 0 | 6 | 11 | 5 |
| No answer % | | 31 | 26 | 13 | 7 | 14 | 29 | 11 | 19 |
| False % | | 3 | 4 | 0 | 9 | 0 | 0 | 0 | 2 |

| 49. Is it good that every member pays the same amount for the water? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 8 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| No % | | 20 | 13 | 9 | 11 | 10 | 10 | 6 | 11 |
| Yes % | | 43 | 78 | 81 | 80 | 86 | 80 | 89 | 77 |
| No answer % | | 37 | 9 | 11 | 9 | 5 | 10 | 6 | 12 |
| False % | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

This question was asked to find out if people agree with this payment system where small families subsidize the bigger families. What we discovered afterwards is that Committee Members can have the opinion that they should pay less because of their duties. The reasons we can not test.

INDICATOR 9

| 20. Why are you keeping your Communal Water Point clean? | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|-----|
| Indic. 9 | CWP | 6 | 24 | 32 | 34 | 37 | 56 | 62 | Avg |
| Somebody from Water Department said so % | | 3 | 9 | 4 | 5 | 5 | 6 | 2 | 5 |
| Somebody from Ministry of Health said so % | | 11 | 17 | 9 | 5 | 0 | 14 | 4 | 9 |
| When it is dirty it causes diseases % | | 77 | 61 | 64 | 73 | 95 | 67 | 75 | 73 |
| Do not know % | | 0 | 13 | 9 | 7 | 0 | 2 | 4 | 5 |
| No answer % | | 11 | 4 | 15 | 9 | 0 | 10 | 15 | 9 |
| More than one answer % | | 0 | -4 | 0 | -2 | 0 | -2 | 0 | -1 |
| False % | | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 1 |



In this annex there are two cost calculation worked out. The first one is a estimate for a request for a new CWP in Masasa (April '93). The second one is the calculation of the CWP constructed in 1984.

Calculation 1.

| Item | Description | MK |
|------|---------------------------------|---------|
| 1 | 1 no 32mm*32mm PVC Tee | 11.07 |
| 2 | 1 no 32mm PVC Adaptor | 6.99 |
| 3 | 50 no 32mm PVC Pipes | 1065.00 |
| 4 | 6 no 25mm GI Pipes | 270.48 |
| 5 | 5 no 25mm GI Elbows | 18.90 |
| 6 | 1 no 25mm GI Tee | 6.05 |
| 7 | 4 no 25mm*20mm R. Bushes | 11.80 |
| 8 | 2 no 3/4" GI Pipes | 63.12 |
| 9 | 1 no 3/4" Meter | 158.28 |
| 10 | 2 no 25mm Gate Valves | 75.70 |
| 11 | 2 no 25mm Nipples | 5.10 |
| 12 | 2 no 20mm Bib Taps | 63.12 |
| 13 | 5 tins solvent Cement | 96.00 |
| 14 | 8 tins Cleaning fluid | 52.00 |
| 15 | 5 no Hacksaw Blades | 15.00 |
| 16 | 500 Bricks | 40.00 |
| 17 | 10 Packets Cement | 300.00 |
| 18 | 5 m ³ Crushes stones | 50.00 |
| 19 | 1 Steel BRC Wire | 150.00 |
| 20 | 1 Mutton clothes | 15.45 |
| 21 | 3 no Thread tapes | 45.00 |

| | |
|-----------------------------------|---------|
| SUB - TOTAL COST OF MATERIALS | 2519.00 |
| Add % Charge in price (stores) 7% | 176.33 |
| Sub - Total | 2695.39 |
| Add % Surcharge handling 5% | 134.77 |
| Sub - Total | 2830.16 |
| Labour | 300.00 |
| Sub - Total | 3130.16 |
| Transport | 200.00 |
| Sub - Total | 3330.16 |
| Constigency 10% | 333.02 |
| Sub - Total | 3663.18 |
| Agency Fee 25% | 915.80 |
| TOTAL COST | 4578.98 |

Total 2519.00

Calculation 2.

- CWP Structure

(Ref. Drawing WT/O/159) Excluding meter box and drain)

| | | |
|----------------------------|---|------------------|
| 7 no. | Packets cement at MK 8.80 | = MK 61.60 |
| 550 | Bricks Grade III at MK 21.00/Thousand | = MK 11.55 |
| 1.1m ³ | Sand | |
| 0.8m ³ 1.06 cu. | Quarrystone 1/2" 3/4" at MK 19.45/cu.yd | = MK 20.60 |
| | | Total = MK 93.75 |

- Each meter box

| | | |
|-------------------------------|--|------------------|
| 1.2 No. | Bucket cement at MK 8.80 | = MK 10.56 |
| 170 | Bricks Grade III at MK 21.00/Thousand | = MK 3.57 |
| 0.2m ³ | Sand | |
| 0.08 m ³ 0.1 cu.yd | Quarrystone 1/2" 3/4" at MK 19.45/cu.yd | = MK 1.95 |
| 1/5 no. | Mild steel plate 8' *4' *3/4" at MK 117.32 | = MK 23.46 |
| 0.3m | Round bar 6mm at 3t/ft | = MK 0.03 |
| 1 no. | 1/2" *12" bolt at MK 1.34 | = MK 1.34 |
| 0.2m | Flat bar 30mm*4mm at MK 1.25/ft | = MK 1.25 |
| 1 no. | Padlock | = MK 2.31 |
| | | Total = MK 44.47 |

- Drain for each CWP

| | | |
|---------|---------------------------------------|------------------|
| 1.8 no. | Packet cement at MK 8.80 | = MK 15.84 |
| 300 | Bricks Grade III at MK 21.00/Thousand | = MK 6.30 |
| | | Total = MK 22.14 |

- Each Valve Chamber (Pipe type)

| | | |
|-----------------------------|---|------------|
| 0.37 no. | Packets cement at MK 8.80 | = MK 3.26 |
| 50 | Bricks Grade III at MK 21.00/Thousand | = MK 1.05 |
| 1m | Pipe AC (or strong PVC) 5" preferable (minimum 4"). In as much as possible rejects | = MK 10.00 |
| 0.03m ³ | Sand | |
| 0.06m ³ 0.08 no. | Quarry stone 1/2" at MK 19.45/cu.yd | = MK 1.56 |
| 3m 1/4 no. | Round bar 6mm * 1/4" * 40' at 3t/ft | = MK 0.30 |
| | Total = | MK 16.17 |

19 CWP Structure, Meterchamber and Drains

13 Valve Chambers

739 Lengths Pipe

Approximate period of work

= 10 weeks

No. of Labourers Trench/Task Work

= 25 Labourers

Also Required : 2 Builders, 1 Plumber, 1 Foreman

4 Labourers to assist Builders, Plumber, Foreman

29 Labourers at MK 0.98/day * 50 days = MK 1421.00

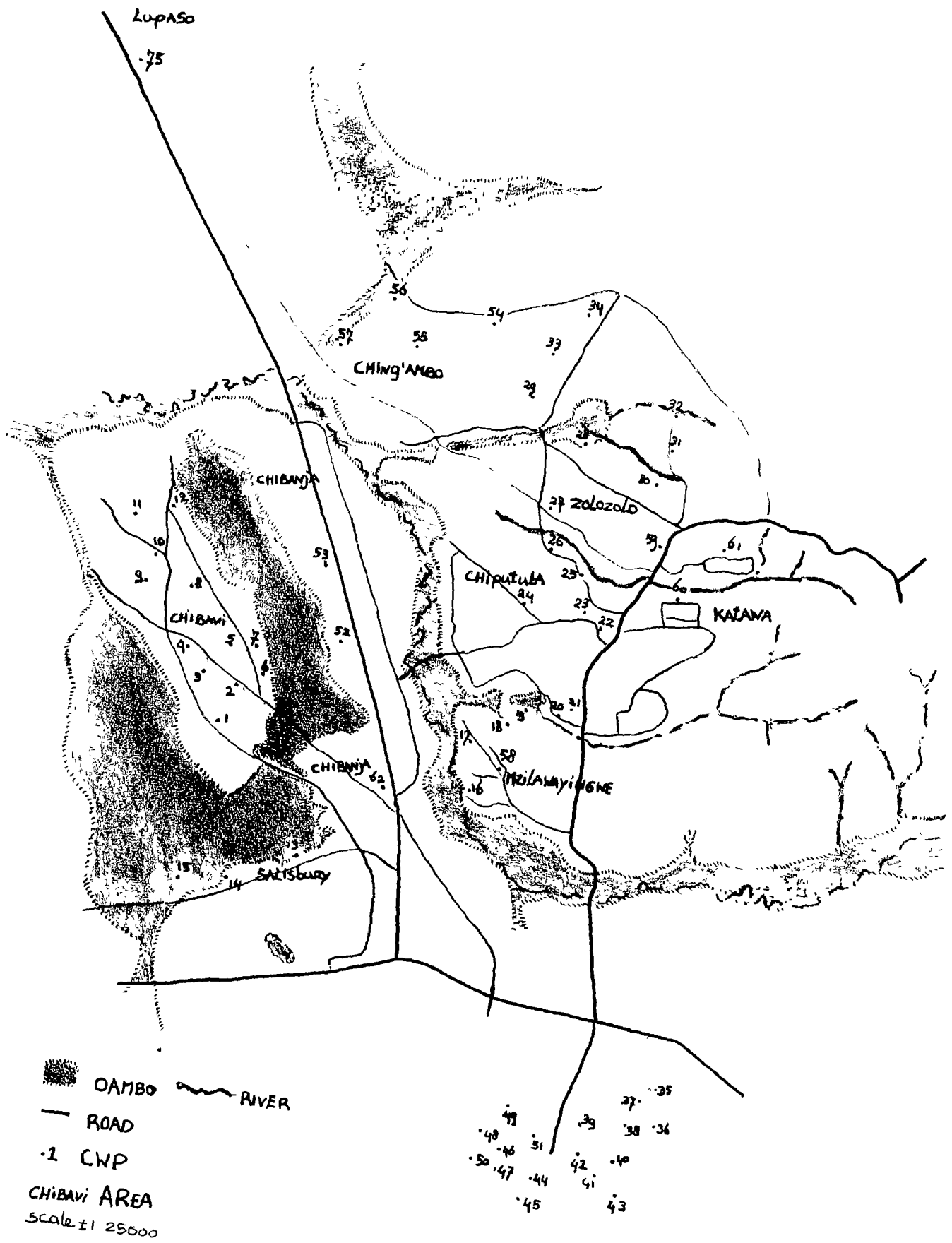
2 Builders at MK 15.30/day * 10 weeks = MK 306.00

1 Plumber at MK 15.30/week * 10 weeks = MK 153.00

1 Foreman at MK 25.00/week * 10 weeks = MK 250.00

Total Estimated Cost MK 2130.00

(Rate of exchange, Dec 1983: 1 US Dollar = MK 1.32)



Mzuzu

- Housing

There are five main types of housing area:

- low density
- medium density
- high density (permanent)
- high density site and service and upgraded housing area.
- unplanned traditional housing area

There is a rapid growth of unplanned traditional housing. The conventional housing can not react quickly enough with sufficient cheap housing to meet demand from in-migrants. As a result the only solution for the most newcomers is to construct a house on self-help bases in a traditional housing area and attempt to find a more permanent solution from there.

- Sanitation

The present situation

Sewage disposal in the city is either to septic tanks or pit latrines. There is no sewerage system or sewage treatment works in the city at the present time. Basically, all permanent buildings have water borne sanitation and use septic tanks I.E. approximately 30% of all buildings. The remaining 70% are dependent on pit latrines.

- Transport

Except for Masasa, Chibanja and Mzilawayingwe high density traditional housing areas, high density residential areas have been located on sites further away from the central area of the city. This practice in the past was largely in response to colonial ideology that the central area of the city should remain attractive. The result has been that some unplanned housing settlements (THAs) are located in less accessible areas or on the fringes of the severe problems because most residents of these areas are low income earners. They do not have access to the use of private cars nor can they afford use of transport on a regular basis. The inhabitants of these areas comprising almost 60% of the total urban population who work and seek services in the city centre are subjected to travelling long distances.

Generally, there is very little provision of pedestrian infrastructure in the city despite being the most common means of travel. Some of the routes have followed the existing road network which are long and created by the passage of people's feet and these are the short cuts. These shortcuts have passed through dambo (swamp) areas which become very muddy and unsafe to cross particularly in the wet season. The CC, in an effort to improve the effectiveness and operation of pitlatrines in the city, took over the San Centre Project from the WD in 1988. This project aims to improve pit latrine technology at low cost to provide a better method of sewage disposal for the bulk of the population. A major boost to the project was given by the Secondary Centres Development Project in Mzuzu where San-Centre technology was used in upgrading the Mzilawayingwe.

As a result, the project is beginning to prove successful in getting the message across to pit latrine users that they can improve their latrines dramatically at relatively low-cost.

Cleaning services in the city are provided by the CC who carry-out refuse collection and street cleaning around the city centre and dispose of it tips at Mchengautuwa. The vehicles available for these services are inadequate to solve to the whole city and the bulk of domestic waste will continue to be disposed of in pits and burnt or buried.

- Traditional housing areas

What we think a traditional house is, according to what we have seen: A house build by sun dried bricks and plastered with clay. The roofs are made of sticks covered with plastic and straw or with iron sheets. The sizes vary roughly from 9 square meters to 25 square meters.

| | Traditional |
|--|---------------|
| Plot area (m ²) | 375-1000 |
| Minimum plot width (m) | 15 |
| Minimum plot length (m) | 25 |
| Minimum building lines (m) | |
| -front | 3 |
| -side | 3 |
| -rear | 3 |
| -servants quarters | - |
| Main housefloor area (m ²) | - |
| Servant quarters (no.living rooms) | - |
| Building materials | Traditional |
| Roofing finish | Permanent |
| Water supply | Selling point |
| Sanitation | Pit latrine |
| One site parking spaces(minimum) | - |
| Design of vehicular access(minimum) | - |

Table Site standards for residential development(source: Standard guidelines, town planning)

All areas discribed are high density traditional housing area, according to the map of Mzuzu Urban Structure Plan.

Every area has its own ward councillor. It is a person working for the city council who supervise the area.

| Area | Area size (ha) ¹ | Nr of CWP | Total households (CWPs) ² | Private connections ³ | Alternative sources ⁴ |
|--------------|-----------------------------|-----------|--------------------------------------|----------------------------------|----------------------------------|
| Chibavi | 100 | 12 | 720 | 250 | no |
| Chibanja | 30 | 3 | 241 | 70 | sh.well |
| Salisbury | 8 | 3 | 197 | 10 | sh.well |
| Mzilwayingwe | 30 | 5 | 178 | 120 | stream |
| Chiputula | 80 | 7 | 362 | 100 | sh.well |
| Zolozolo | 180 | 9 | 629 | 238 | stream |
| Masasa | 120 | 17 | 717 | 15 | stream |
| Ching'ambo | 55 | 4 | 250 | 254 | stream |
| Katawa | 35 | 1 | 17 | 255 | ? |
| Lupaso | ? | 1 | 90 | 4 | ? |

Source: ¹ map of City of Mzuzu
² "household contribution" form and oral information
³ meter readers of Mzuzu
⁴ observation, MR, well technician (there is no write information about shallow wells, not at WD, nor at CC, nor Min of Health)

The city of Mzuzu has 66,400 inhabitants (last census '87 it was 44,238 and it has a growth of 7%, source: CC).

What is calculate beneath is how many people are supplies with threated water in the different areas.

For an average plot size in the traditional housing areas is taken: 1000m₂. This size is also including roads, which were also include when calculating the area sizes. To prove this the following calculation is made.

The total surface of the 9 areas (exclude Lupaso) is 638 ha. The total number of plots is (638/0.1) 6380. For an average household is taken 6 people according to the questionnaire results. These nine areas given an population of 38,280 people. The other 28,120 people live in the other areas were there are no CWP's, only private connections, like Chafesu, Katoto, Kaningina.

Chibavi: 1000 plots - 720 plots (CWP households) - 250 plots (private connections) = 30 households which are not supplied

Chibanja: 300 plots - 241 plots (CWP households) - 70 plots (private connections) = 11 households supplied from outside

Salisbury: 80 plots - 197 plots (CWP households) - 10 plots (private connections) = 127 households supplied from outside

Mzilwayingwe: 300 plots - 178 plots (CWP households) - 120 plots (private connections) = 2 households which are not supplied

Chiputula: 800 plots - 362 plots (CWP households) - 100 plots (private connections) = 338 households which are not supplied

Zolozolo: 1800 plots - 629 plots (CWP households) - 238 plots (private connections) = 933 households which are not supplied

Masasa: 1200 plots - 717 plots (CWP households) - 15 plots (private connections) = 468 households which are not supplied

Ching'ambo: 550 plots - 250 plots (CWP households) - 254 plots (private connections) = 46 households which are not supplied

Katawa: 350 plots - 55 plots (CWP households) - 255 plots (private connections) = 40 households which are not supplied

Chibavi

This area was already developed before any town planning came. The roads are not tumbled and a lot of them are very curved. All the CWP's are situated along the roads. Only little arable land is found between the houses. There are some facilities like a primary school, six churches, a petrol station without electricity, a little market and small groceries.

Chibanja

This area can be divided into three parts. Chibanja north and the Chibanja centre is situated along the main tumbled road to Rumphu. The southern part is called Salisbury which will be discussed later.

Chibanja north has 2 CWP along the wide clay road which is situated 50m from and parallel to the main road. It is an open area. There are some houses made of bricks alternated with traditional houses. Some maize and bananas are growing along the road.

Chibanja centre was developed before any town planning came. There is 1 CWP

Salisbury line (Chibanja south)

A sandy road is crossing this area. At the north side of this road there are traditional houses, at the south side there is only arable land. The CWP's are along the road, of which 1 CWP is at the side of the arable land. Also this area was already developing before any planning came in. The area is 1200m long, along the road, and only 60m wide.

Ching'ambo

This area is fairly flat with light-coloured sand. It is a woody area (planted) with a lot of reed, bananas and even pine trees. The roads are very bad. There is no primary school but a church is present. The area is still unplanned.

Zolozolo

The area is divided into zolozolo and zolozolo-west. The soil is sandy. The roads are bad and narrow. There are some big houses and a grocery. CWP 32 is situated at a high top of a hill. There are a kind of terraces around with bananas and maize.

Zolozolo-west has 2 CWP's. It is a quiet area. Erosion occurs.

The area is surrounded by eucalyptus trees. The houses are far apart from each other, ± 50m. It is alternated with banana trees, sugarcane, and dried out maize.

Zolozolo itself is a bit hilly and has 8 CWP's. There is a primary school. Zolozolo is partly planned but Zolozolo-west is developed without any planning.

Katawa

The area is partly developed and partly planned. There is only 1 CWP. This was a kiosk before.

Masasa

It is very hilly, the roads are perpendicular on the contours. It is impassable for cars or motors as the small roads pass between the houses with a lot of height difference, except from the road which directs to the area. The soil is red-coloured and rocky and there is no arable land in between the houses. There is a lot erosion which affected the roads. The area is high populated. There are only very few brick houses. The area is unplanned. It has a primary school which is overpopulated.

Mzilawayinqwe

The area is first developed before is was planned.

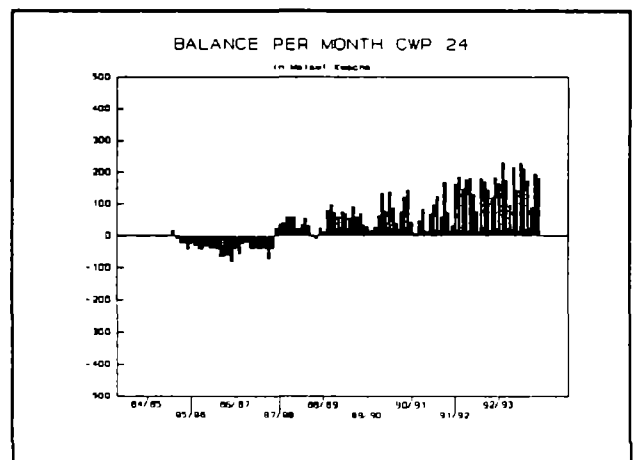
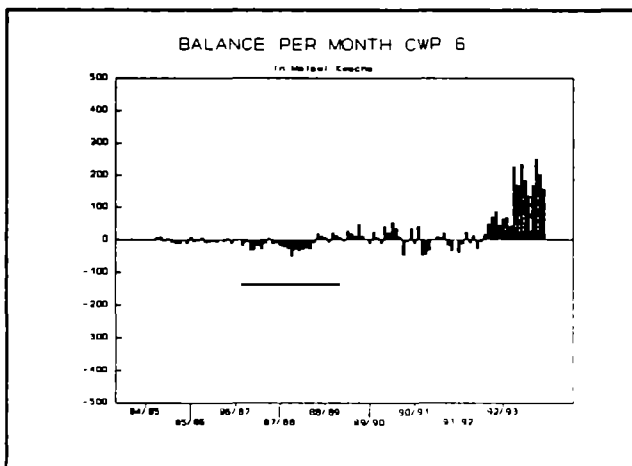
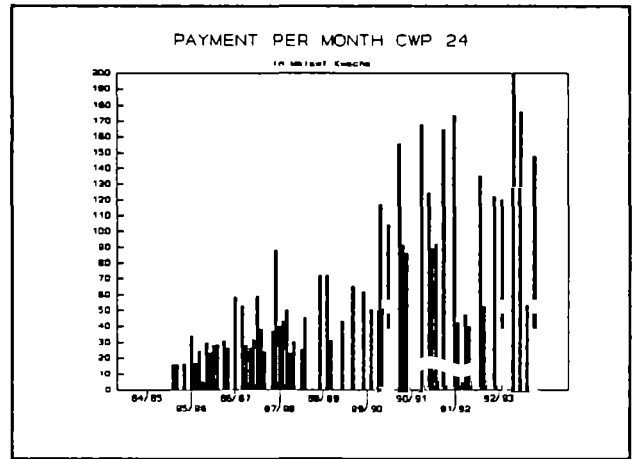
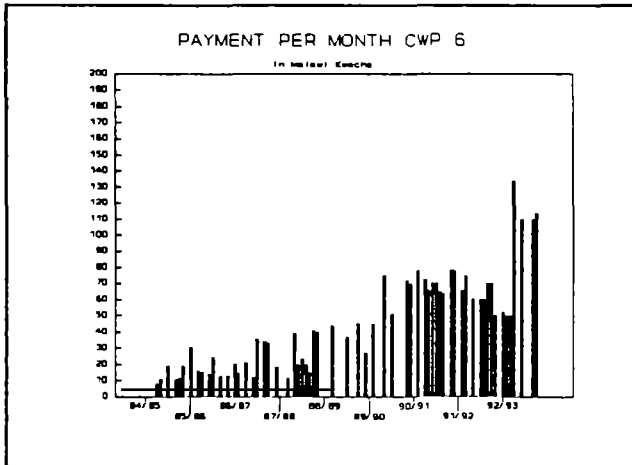
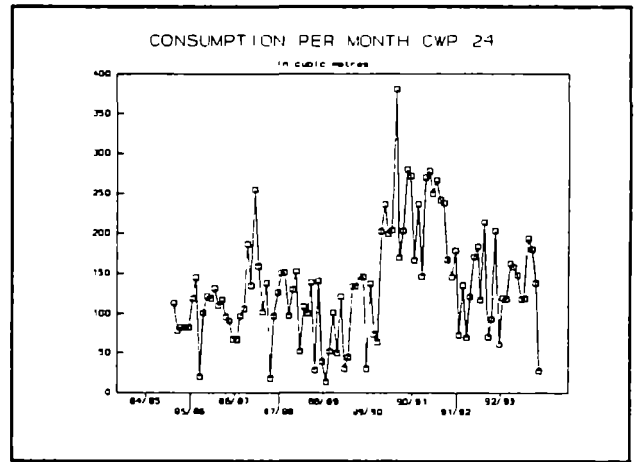
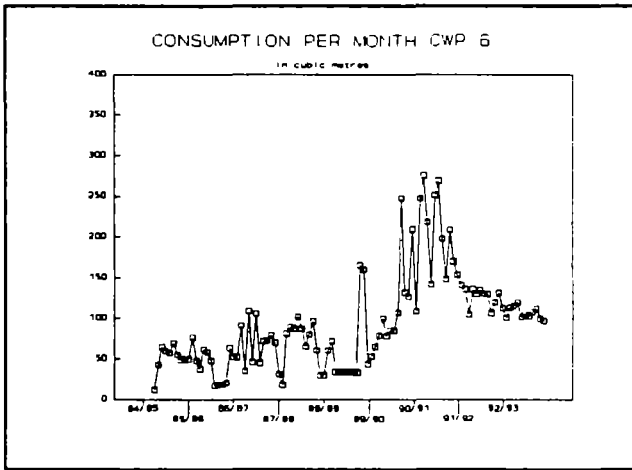
Chiputula

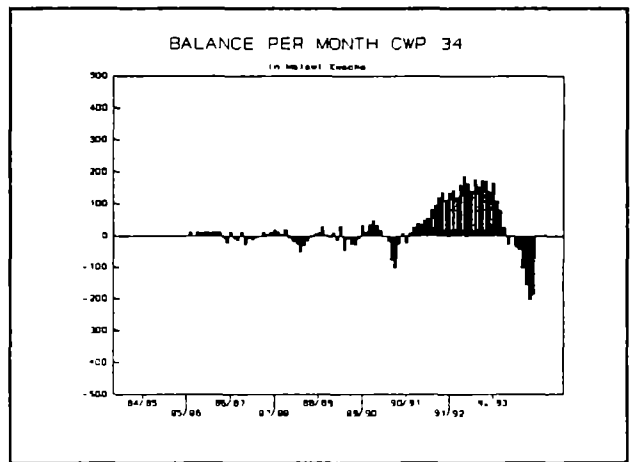
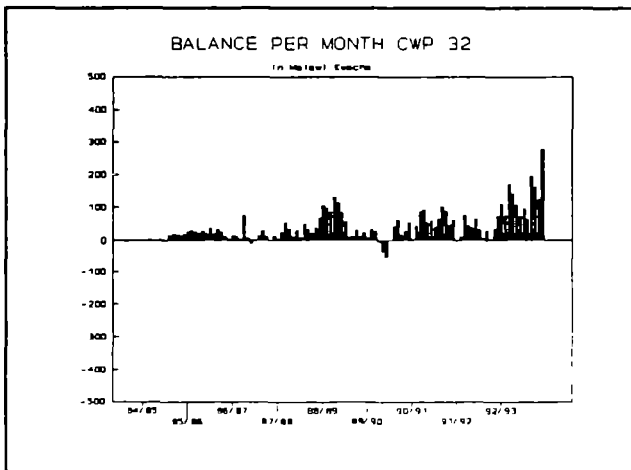
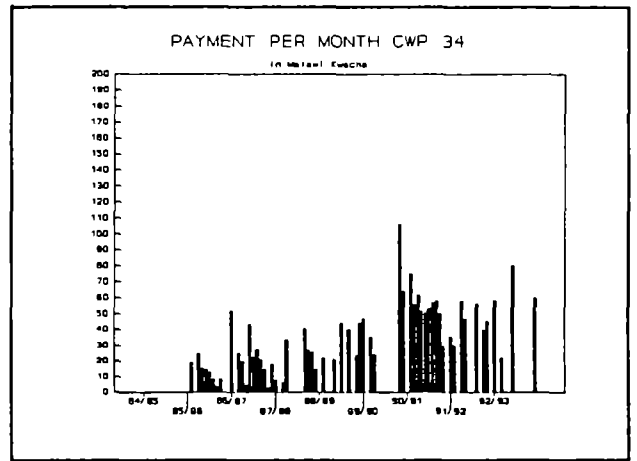
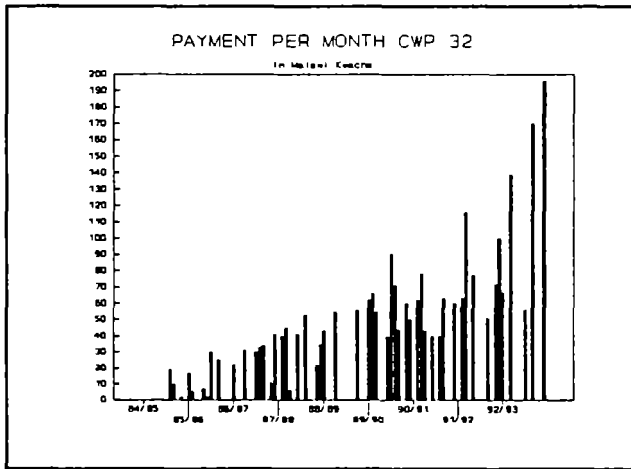
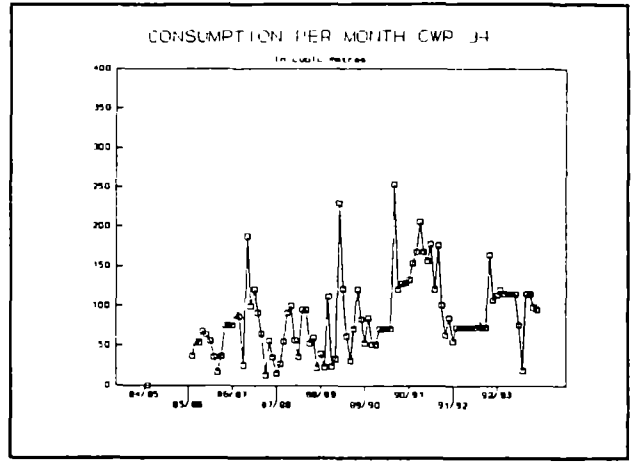
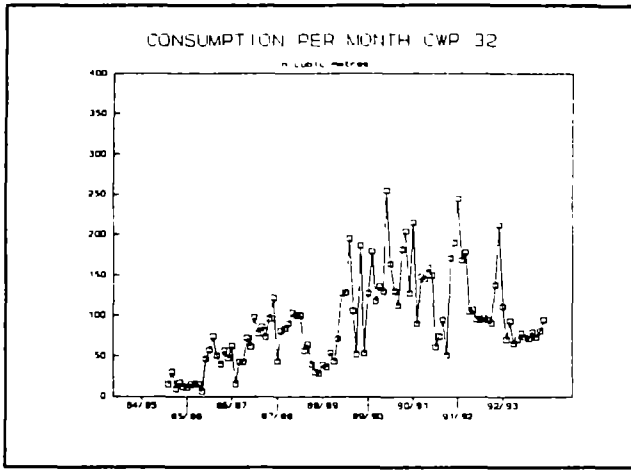
The soil is erosion sensitive. The area is unplanned but with a section to be planned soon. The area is sandy with the so-called traditional houses around 10 to 15 metres from each other. People screen their compound with Lantana, sugarcane and bananas. There is a sandy road of 4 metre width crossing the area. The houses with thatched roof and iron sheets take turns. The rainwater infiltrates quickly into the ground. There are many Eucalyptus planted and some Pine trees.

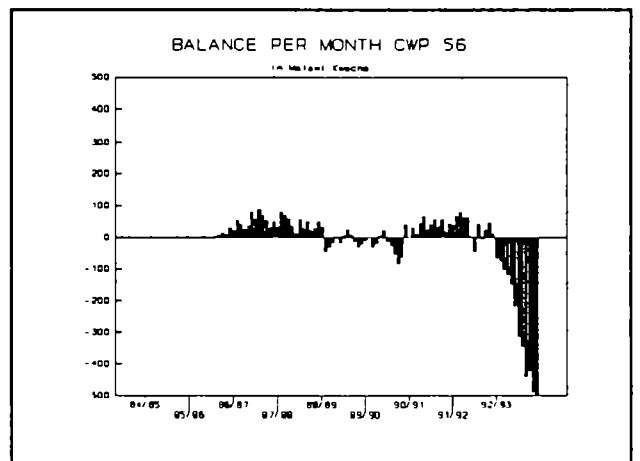
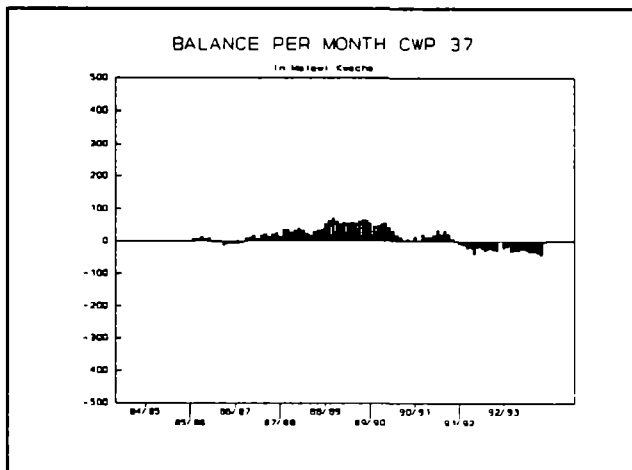
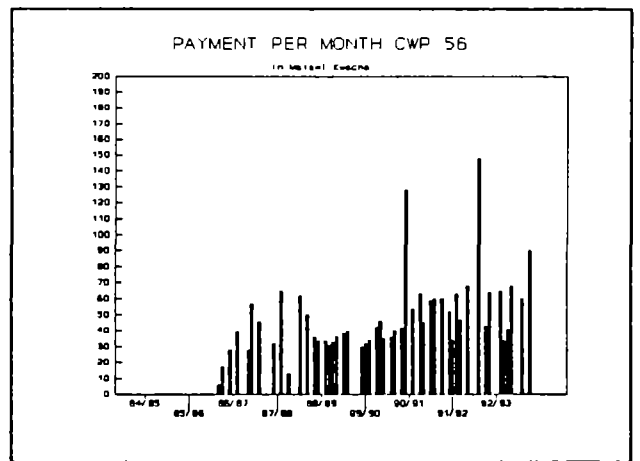
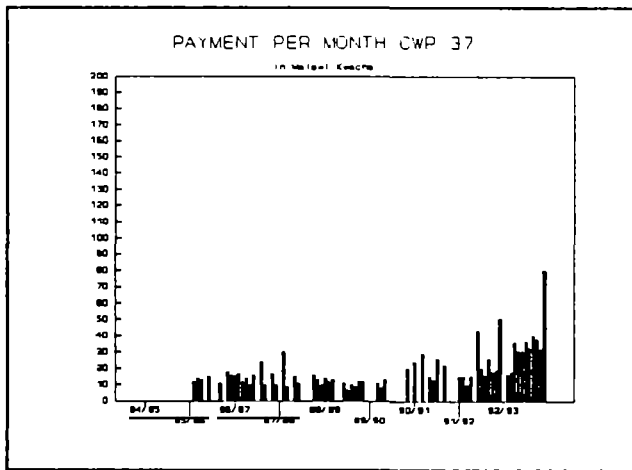
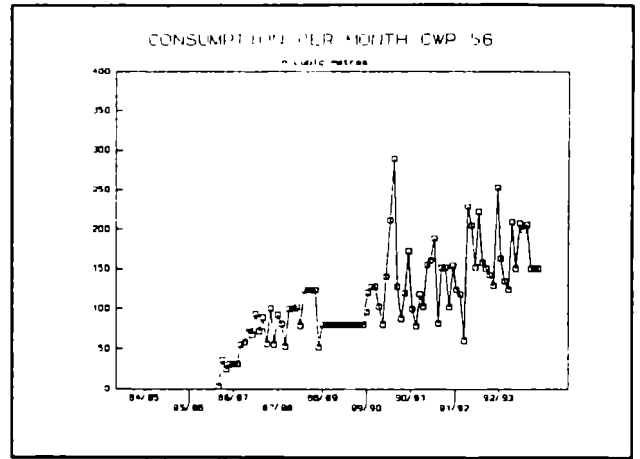
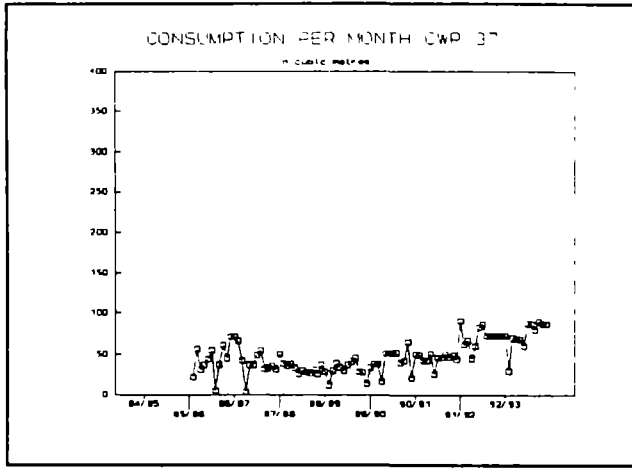
Lupaso

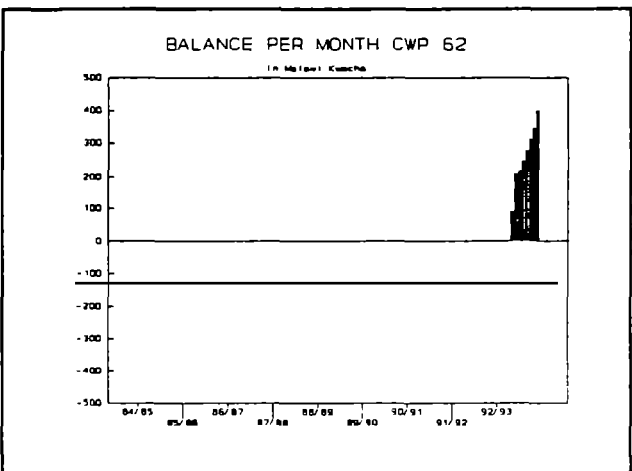
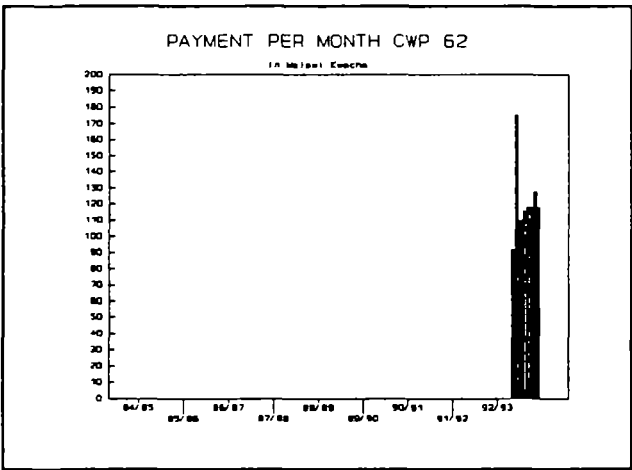
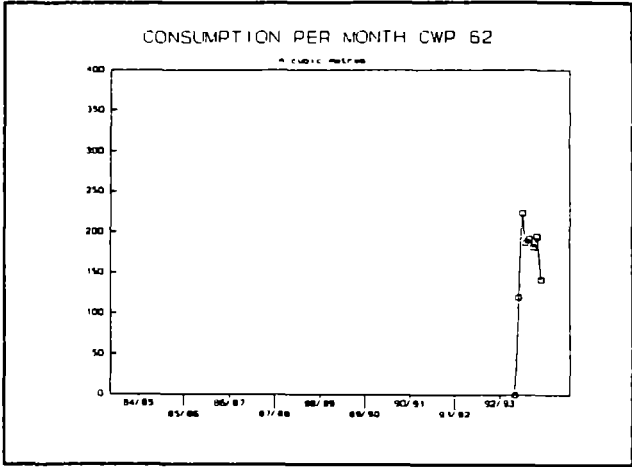
It is a secluded area, about 10 km outside the town. there is only 1 CWP. Lupaso has a big square, a primary school. The houses are red-coloured like the soil. Mais and bananas are growing there. It look alike rural areas. There is not yet a plan made for this area.

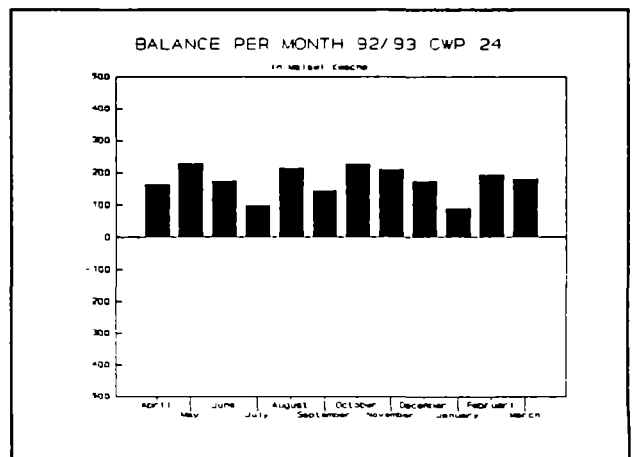
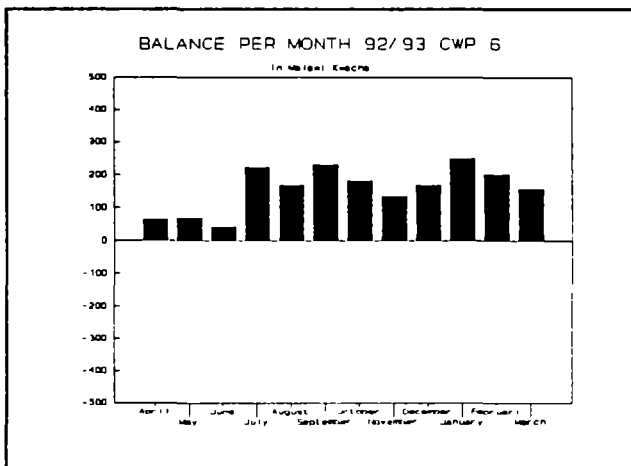
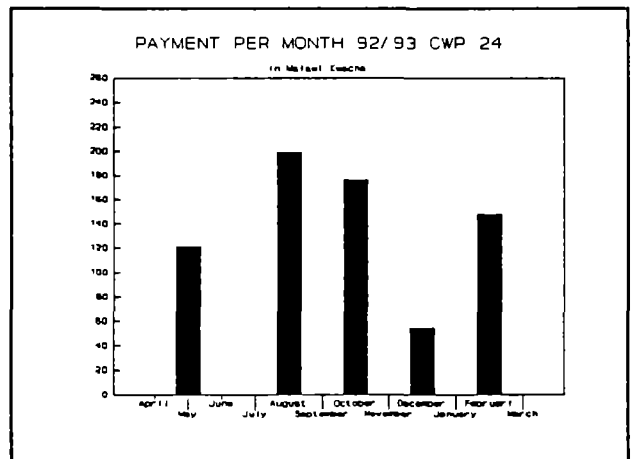
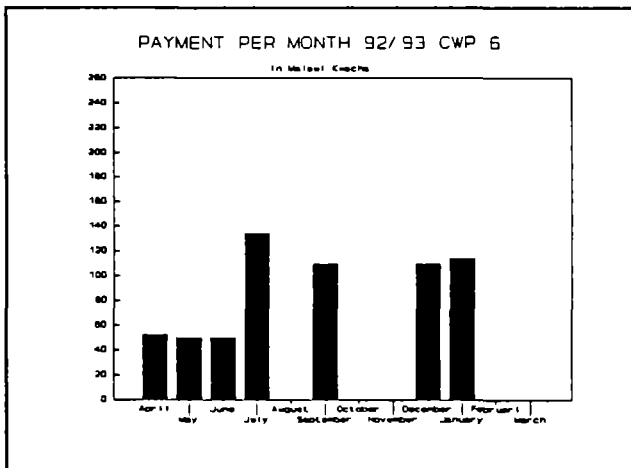
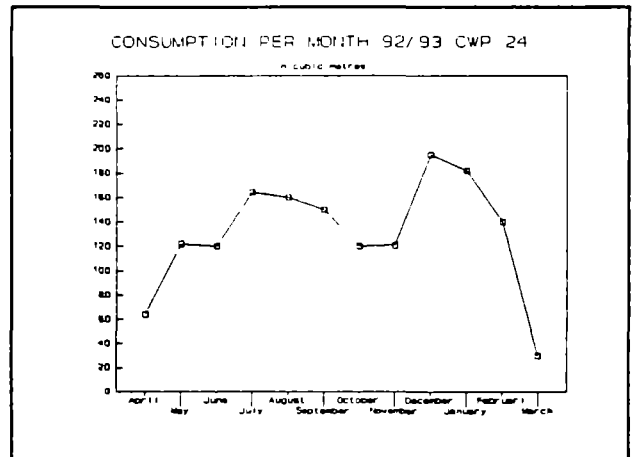
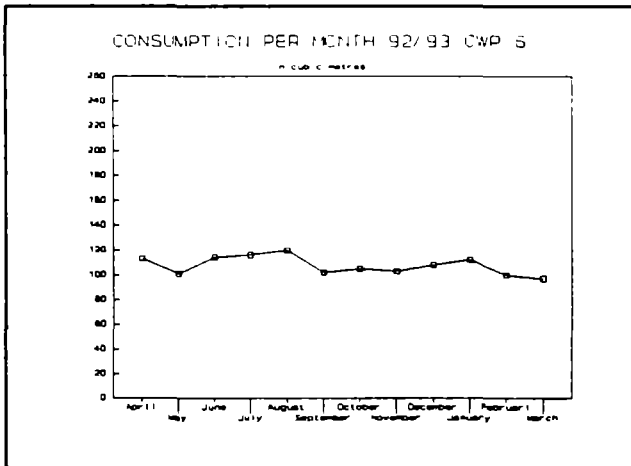
Graphs of Consumption, Payment and Balance 1984-1993 Annex 9

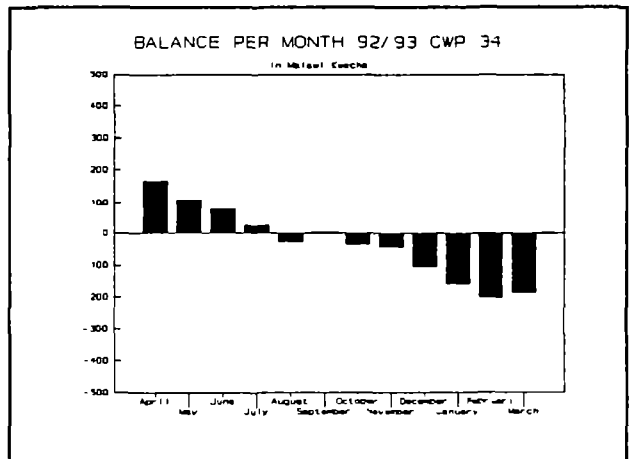
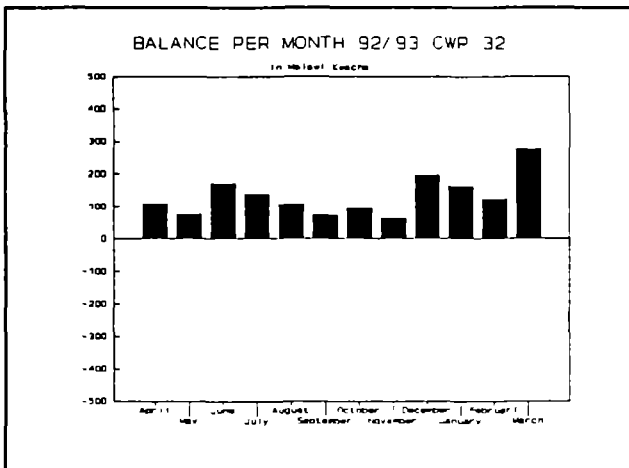
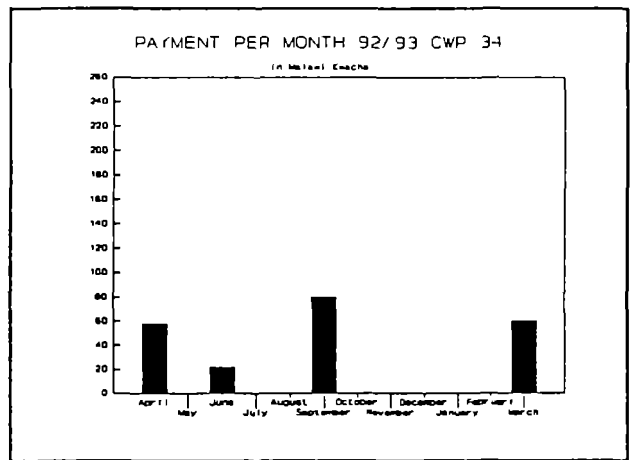
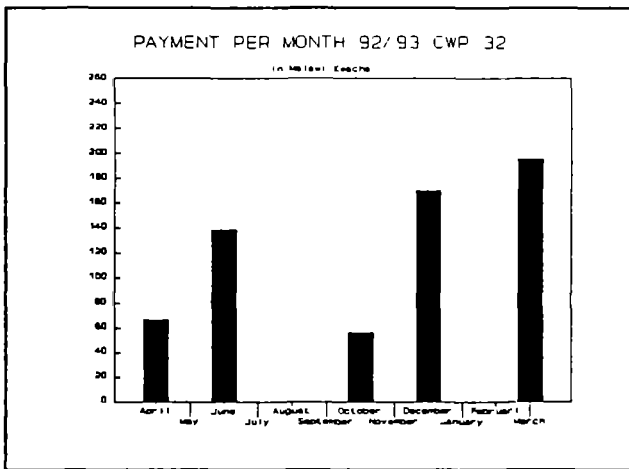
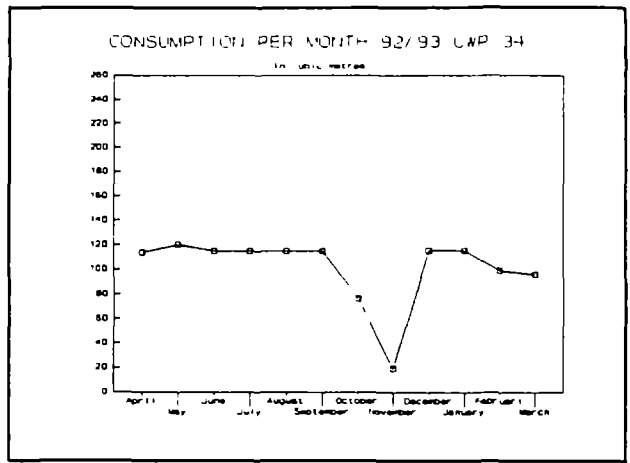
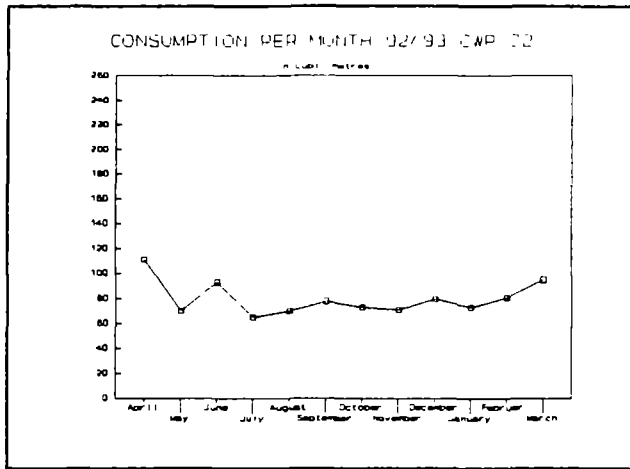




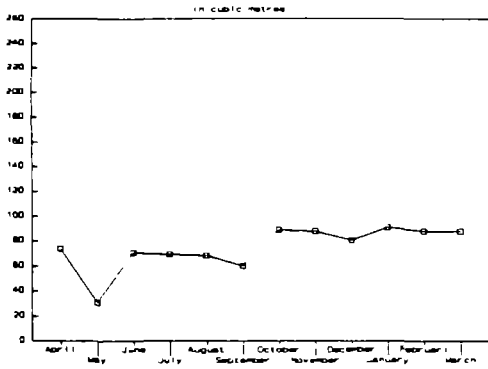




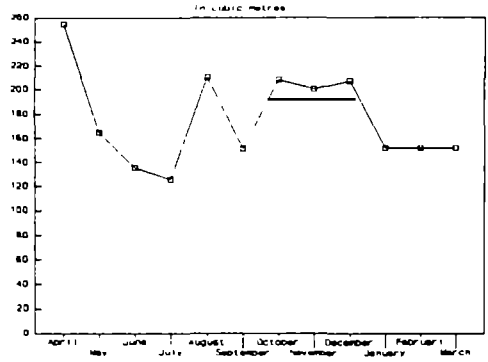




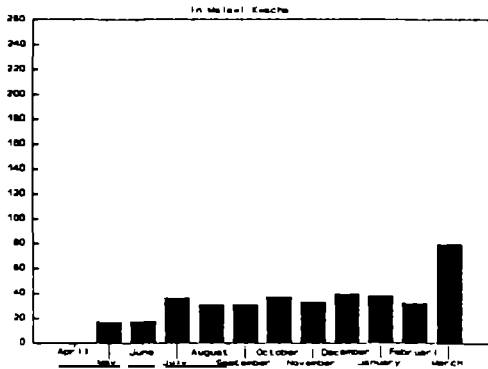
CONSUMPTION PER MONTH 92/93 CWP 37



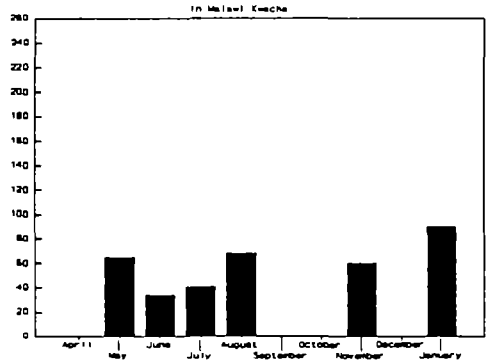
CONSUMPTION PER MONTH 92/93 CWP 56



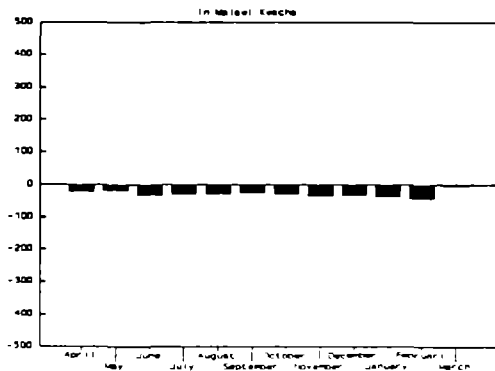
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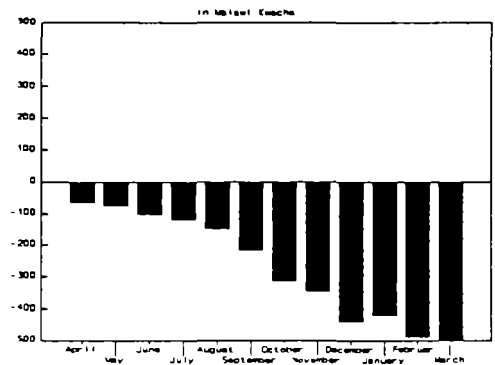
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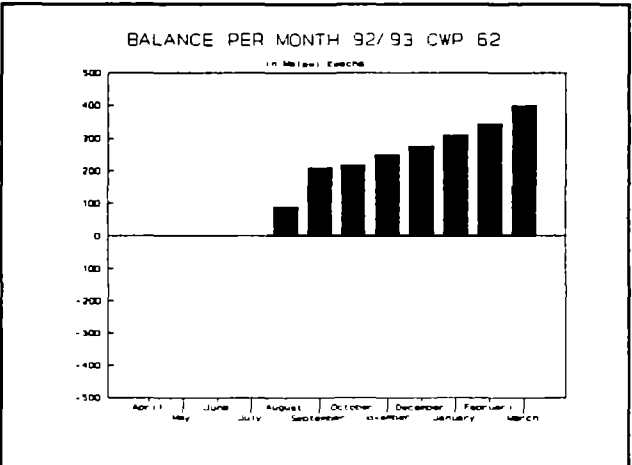
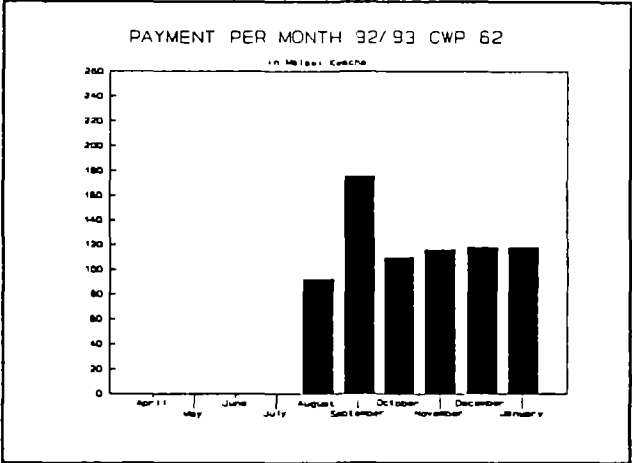
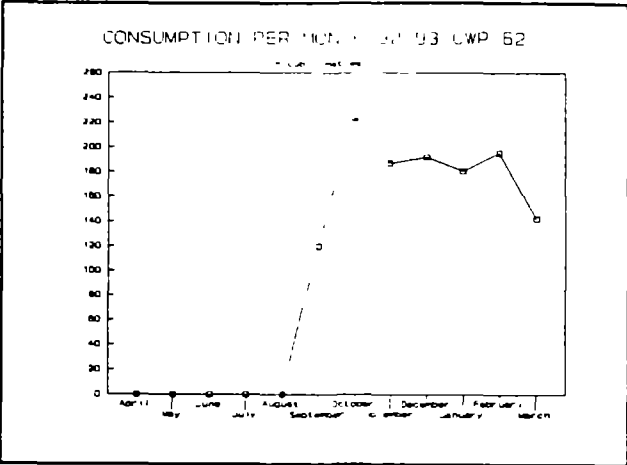


BALANCE PER MONTH 92/93 CWP 37



BALANCE PER MONTH 92/93 CWP 56





Treatment plant consists of the old works (constructed in 1959) and the new works (1972). A further extension of the new works was completed in 1983. The raw water is taken from the Lunyangwa river. From the intake it goes into tanks by gravity from where it is pumped up in the sedimentation tanks, the old work has got three horizontal sedimentation tanks, the new works has got three vertical upward flow sedimentation tanks. Along the way from the raw water tanks to the sedimentation tanks, $\text{Al}_2(\text{SO}_4)_3$ aluminiumsulfate is added to the raw water (100kg of this aluminiumsulfate is used per day). The injection of aluminiumsulfate in the sedimentation tanks happens by a small PVC pipe with is twining over the ground on the surface to the tank. From the sedimentation tanks the water goes at the old works through two candy rapid gravity filters to the filters, at the new works through five steel pressure filters. After filtering it goes in the clear water tanks where chlorine and soda ash is added. A solution is made of 16 kg soda with 200 litre water and 3 kg with 180 litre water (per day 16 kg of soda and 6 kg of chloor is used). These solutions and addition are done by hand.

Two times a year the sedimentation tanks are cleaned and once a day the filters are cleaned.

Five times a day a sample of the treated water is taken and checked on the concentration of chlorine, soda ash and aluminumsulphate. Whenever the concentration is to little they adjust immediately untill the right concentration is reached. The pH of the raw water is between 7.4 - 7.6 by adding aluminium-sulfate the pH decreases to 6.4 - 6.6. The data of the samples are recorded in a logbook.

There is no laboratory in Mzuzu. Only when the life president of the republic of Malawi, comes to Mzuzu the water is completely tested by laborants from Lilongwe.

(Source: Plant Operator in charge of the treatment works)

This annex includes five completely written out interviews with WD staff. All other inquiries held are written down in the annex "Stories"

Interview with Water Foreman, Mr.Chitsonga

20th may 1993.

- Case 1: A CWP did not pay the water bills for a long time, they have a debit balance.
- Question: Will they be disconnected?
- Answer: The CWP will be disconnected, we should disconnect.
- Q: When will they be disconnected?
- A: It will happen after 60 days (2 months) or 90 days.
- Q: Is that depending on the amount of debit or months not paid?
- A: Yes, in the past CWP's were disconnected. Like now there are many CWP's with a debit balance but they are not disconnected. It depends on how busy the accounts people are. They are the people how should disconnect. At the moment they are very busy.
- Q: When will they be reconnected?
- A: After they have paid
- Q: Do they have to pay to be reconnected?
- A: The reconnection fee is MK 10.
- Case 2: If institutions like school or hospitals do not pay the water bill what will happen?
- Q: Will they be disconnected?
- A: They will be disconnected. First you can go and warn them to tell you are coming back for two or three days to disconnect. It was ridiculous to disconnect somebody with a water bill of 5 Kwacha and not disconnect the police or hospital with a bill of 2000 Kwacha. Then the headquarters said even police or hospital everybody must be disconnected. All the bills of hospital goes to headquarters of health.
- Q: Are individual connections located on the map?
- A: Individual connections are not located on a map. The main line is on the map with the diameter. Some of the lines I remember from that time they were constructed. All CWP's are located on the map. First of all we go and see the side were there must come a new connection (CWP or individual). We see what size of pipe there is and how many meter from the mainline the location is. We have the right to dig to check it or we already know what size of pipe there is.
- Q: Who is your direct boss and who can give you orders?
- A: Here my direct boss is Mr Chavula, the Chief Water Supervisor. Mr Champiti, the Principal Water Officer, is in charge of the whole Water Department (northern region). The Chief Water Supervisor can give me orders only. If the Principal Water Officer wants something to be done he goes to the Chief Water Supervisor. When the Chief Water Supervisor is not around the Principal Water Officer can give me orders.
- Q: What is an average cost for a individual connections?
- A: We do not have an average connection. It depends on the different sizes of pipelines. The connectors can be different, a 4" to 1/2" connector or just a 1/2" tee makes a lot of difference. It depends if you take water from the mainline or from 1/2". We do not have the actual average. A saddle is very expensive.

You need to fixed it on the mainline. Sometimes you need to cross the road. We don't dig but make tunnels. Digging is expensive because road's people charge money for that. Even there is no average distance. We can have 19 lengths (114m) or 2 lengths (12 meter). The prices went up. People which we connected last year are cheaper off then this year. The yearly government prices list is from April to March.

Like the water meter 1/2" (item 0115)

1988- MK 93,63
1989- MK 96,90
1992- MK 164,00
1993- MK 194,53

Like the 1/2" GI pipe (item 3409)

1988- MK 10,60
1989- MK 20.13
1992- MK 24.34
1993- MK 33.82

Like the 1/2" bibtap (item 0439)

1988- MK 17.02
1989- MK 17.09
1992- MK 22.71
1993- MK 42.92

- Q: How do you know that there is enough pressure at the new location?
- A: We look how many people there already are on the line. If there are already to many connections the request has to wait untill the line is upgraded.
- Q: Do you know how many individual connections there are?
- A: About 5000, but you should check that with the water meter readers.
- Q: What is your responsibility concerning CWP's?
- A: To supply people who can not afford individual connections. My responsibility was to construct them after that it was finished. It is the construction and the maintenance.
- Q: How are the water bills reaching the people?
- A: The bills go into the P.O.boxes, the same address which is on the construction request.
-

Interview with Monitoring Assistant, Mr.Msukwa

20th May 1993

- Question: When exactly did the people change from MK 1.00 to MK 2.00 per month?
- Answer: That was in May, June last year, 1992.
- Q: What is an average income per month of a household living in a CWP area?
- A: That is very difficult. I can not know. The income of the family I do not know. Some just sell tomato's. Even of a civil servant I do not know their income. It is hard for me to tell.
- Q: What is roughly the minimum income to afford a individual connections?
- A: I do not know
- Q: Who told you to start with keeping records and when?
- A: Mr Kwaule (Project Manager) and Mr Kumwenda. They told it to me in 1986. In 1984 I was just assisting a Clerk Officer who was just recording on the ledger cards. That time I was a Meter Reader.

- Q: How many CWP's in the northern region are under your supervision?
- A: Now a days it is hard to know. But I know the number of CWP's. In Chitipa 16, Karonga 38, Chilumba 30, Nkata Bay 12, Rumphu 17 but not under my supervision, in Mzimba 23, Ekwendeni 15 and Chintheche only 2. (Total under the supervision of the MA are 199 CWP's including Mzuzu).
- Q: CWP 63 is out of order you told us. There are even no records of it. Where is it?
- A: This CWP is at Katawa. They only paid once. There was one person who was paying MK 20.00. He thought that it was his own property. That is why we disconnected. But I think maybe this year we are going to reopen for people who wish to be at that CWP. It was a kiosk before.
- Q: Does all CWP in the northern region have a MA?
- A: All the CWP in the northern region are under my supervision. Every station there is a Plant Operator who is reading the meters. They have control sheets there. When I go there I just go to see the control sheets. Every problem of a CWP is recorded by them. It is very hard for me. They give me only two days. Maybe I only can see one CWP and come back. Every station has got its own Treasurer Cashier where they are paying. In Karonga we have got our own office where they are paying and in Chilumba. In Ekwendeni they post the money to here.
- Q: When you have a individual connections are you allowed to use a CWP?
- A: No, I do not think so, only if they have disconnect you than you can join a CWP. But if you are connected it is not allowed to join a CWP.
- Q: Are there restrictions on the use of a CWP?
- A: We in our office here, we do not like people to use CWP water for making bricks. We do not like that. It must be used for other purpose. The committee of that CWP has to except to use the water for making bricks. It is not our wish.
- Q: Who is a Plant Operator?
- A: It is someone at our intakes there. Those who are working there are called Plant Operator's. We do not have a MR in these areas, only in Mzuzu here. In other stations we have Plant Operator's. The MR's in Mzuzu are no Plant Operator's, like in Chitipa it is a Plant Operator. Only Mzuzu and Zomba have MR's in the whole of Malawi. He give us lists with the prices for water for individual connections.
- Q: How many individual connections are there in Mzuzu?
- A: In December it was around 2500, now it must be 3000. I will ask my friends (the MR's) the amount they have in their area. (There are 2564 individual connections in Mzuzu. They are in different areas: area 1: 99, area 2: 121, area 3: 231, area 4: 56, area 5: 117, area 6: 60, area 7: 66, area 8a: 207, area 8b: 128, area 9: - 172, area 10a: 255, area 10b: 238, area 11: 140, area 12a: 219, area 12b: 250, area 13: 206. Area 14 are the CWP's which are located through out all areas.

Debit and credit balances for the different places under supervision of the MA for December '92

| | credit | debit |
|-----------|--------------------------|-----------------|
| Mzuzu | (8015.62) | 1619.92 |
| Mzimba | (3222,66) | 858.21 |
| Ekwendeni | (876.41) | 433.23 |
| Nkata bay | (1366.74) | 160.31 |
| Chinteche | (133.22) | 27.79 |
| | <u>13,614.65</u> | <u>3,100.16</u> |
| | 10,514.49 credit balance | |

1 CWP in Chinteche should have a credit balance now of 174 kwacha.

Interview with Senior Account Assistant, Meter Reader. Chinsim 20th May 1992

Question: After a committee of a CWP has paid the water bill, what is happening?

Answer: All the collected water rates are at the cashier. He writes down all the income money, from whom received with their account number. The money goes to the bank. The paper with the income water rates and account numbers we work out in our office here. Every account number has its own ledgercard where we fill in the paid money. When we see that there is a debit we warn them with a stamp note on the next bill "Check your entries, due for disconnection. After 30 or 60 days we can disconnect. The reconnection fee is MK 15.00 (Jan'93). The account numbers with debits are written down on a outstanding debtor list. A copy of it is send to the Chief Water Supervisor.

Q: Who is your direct boss?

A: My direct boss. The Chief Water Supervisor can give me orders. I have to report to him. The last man is the Regional Controller of Works. In the account section there is me and Mr.Ngiri. I have to report to Mr Munthali, Senior Accountant.

Q: If for example the Water Department wants to order a water meter. Are you the person to check if there is money for this order?

A: We have our TPA 145. This one is for the Chief Water Supervisor. It is a payment account. This one is funded by headquarters. They give us MK 150.000 every three months which we have to spend. We must make sure that we are spending all the money. With this amount we pay things which we buy from here from the Government Centre Store. We have got to pay from the TPA 145 what we buy in the region. From this we pay stationary, wages, some bills, oilcom (petrol station). Some bills are paid from headquarters. If we can not pay the bills from oilcom for example then we leave the bill for headquarters. We must make sure that we spent the MK 150,000. TPA145 is a code for the bank, reserving bank. We keep on checking the amount at the TPA145. Lilongwe is TPA129 from which we get our money, we are funded by TPA129. The Chief Water Supervisor has to sign for the bills.

- Q: Maybe you can tell what the minimum income is to afford a individual connections?
- A: No, we have not established that one. That would mean an average income for people who are willing to pay or are paying a individual connections. That is difficult. Those who have a individual connections must have around 500 Kwacha per month, most of them. Especially those who can built their own house.
- Q: So, another question is an average income of a household living in a CWP-area, like Chibavi?
- A: Most of those people are not.....those who have built their houses and those who are renting. The people who are renting get around 500 Kwacha per month. The one who built their own house get maybe more above 500 Kwacha. They get their actual connections. People of CWP should get on average below 500 Kwacha per month. It depends on the individual, house renting is high, but getting water from a CWP is not a problem.
- Q: When there is no electricity, how long do the tanks supply the city from water?
- A: That you should ask Mr. Mohango, a Water Foreman. He has the total capacity of our tanks a how much we are pumping every day; that is almost what we consume every day.
- Q: Is there a co-operation of Water Department and City Council, Water Department and Health survey or Town planning?
- A: We are supposed to attend meetings with Health survey, although we have our own lab chemist to check the water through out. If there are problems, they have to tell us, that is why we have to attend meetings. It should have been on good level. You know that some diseases are related to water. There is no co-operation with Town planning. With City Council I think so. We have to attend their meetings, because of the relationship. But there is not actually a co-operation, because this a Government department and their's is a Local Government.
- Q: What are your responsibilities concerning CWP's?
- A: We are concerned but first of all the communities have to show their concern. We are ready to provide whenever the request comes in. Whenever they ask for it we have to provide. We do not want anyone to drink bad water. They have to request for it! It is difficult for us to know where there is need. They have to form a community.
- Q: One of the policies of the water supply of Malawi is increase coverage and maximisation of financial and technical self sufficiency at community level. How does the Water Department fill in this policy?
- A: The community here means the whole community of Malawi. Did you get the policies of urban water supply only?..... Any how it is still at the same level coverage maximum..... It depends on the maximum of technical.....Maybe they are thinking of using propertymore economic.
- Q: Your direct boss is the Regional Controller?
- A: What management is concerning, yes. But technically it is Tikwere Headquarters. There is not much difference. The Regional Controller is only asking for supervisor management of the water supply not for technical aspects. For anything technical I have to contact Tikwere. Water Department has started centralising itself. That started in 1991. Previously everything was done directly from here to Tikwere. That time the Regional Controller was not involved. Water Department was under different departments.

First under Public Work Department (PWD) then under OPC (Office of President and Cabinet) Department Lands Valuation and Water there was to much strength (something wrong with the financial position). Now we are under Ministry of Works, maybe later it will be a ministry on its own.

Interview with the Chief Water Supervisor, Mr.Chavula

15th June 1993

- Case 1: A CWP did not pay the water bills for a long time, they have a debit balance.
- Question: Will they be disconnected?
- Answer: No. What we facing here is that we are not advice to disconnect the CWP's. Politically seen, we try to help these people. What we do is approach them and asked them to pay the bill.
- Q: Did it ever happen that a CWP was disconnected?
- A: No, it never happened.
- Case 2: If institutions like school or hospitals do not pay the water bill what happens?
- Q: Will they be disconnected?
- A: They will be disconnected. We know that the government is paying there bill.
- Q: When will they be reconnected?
- A: After they have paid the bill and the reconnection fee.
- Q: Does the same happen to individual connection?
- A: Yes, for individual connections it is the same procedure.
- Q: One of the policies of the water supply of Malawi is increase coverage and maximisation of financial and technical self sufficiency at community level. How does the Water Department fill in this policy?
- A: On the technical side in most cases within the group we train the people how to fix this, each item is so much and so on. What is happening is that when things break down they come to the office, ask for a item, pay for it. Once we have installed the rest is for their maintenance. Before the meter it is ours, after the meter it is theirs.
- Q: What is the role of the MA concerning the operation and maintenance of the CWP.
- A: The role of the MA is to monitor the uses, a proper way of maintenance, committee functioning, call for meeting when there is a problem, comes back from the field and reports to us. Whenever there is a problem he comes to us. He also have to give advices for new locations. We send this to Mr Kwaule, the Project Manager.
- Q: Who is your direct boss, the men who can give you direct orders?
- A: The overall boss is Mr Champiti, the Principal Water Officer. He has more says. He is for urban, ground-water, hydrology etc. The boss which we share is the Chief Water Supply, Mr Kankhulungo.
- Q: What are you responsibilities concerning the CWP?
- A: Right for the start I can provide expertise, I have access to buy materials. I have to sign the proposals and cost estimates. I can authorize the Water Foreman and MA. They have to check what is needed.
- Q: The Water Department was under different Ministries. Can you mention all the periods and Ministries?
- A: From '83 it was under Land & Valuation & Water till '88. From 1988 uptill now it is under Ministry of Works .

Q: What are Plant Operators?

A: A Plant Operator is at the treatment plant. He has to take care of the pumps, if the water is treated properly, he has to read the meters and repair them and to clean the plant day to day.

Q: How long can the tanks supply water for the city in case there is no electricity?

A; It is 4 hours.

These are the design stages for the CWP Project.
(Source: R. Carrie, the Malawi's Urban CWP project.
June 1984, Ref. 13)

Stage 1

- Following office studies of maps, data and documents an initial visit is made to the urban centre for an adapted briefing of local officials and leaders and members of the community through meetings, field visits and interviews. The local officials and leaders are then to stimulate community action in view of providing the following inputs:
 - organizing consumer groups of 20 to 30 families about
 - establishing for each group a nominal list of the families and the number of persons in each family.
 - suggesting tentative locations for the CWP's.
 - forming a Tap Committees and filling the Standard Agreement Form for each CWP.

The criteria for siting the CWP's are:

- the CWP should be located in a place suitable for the group as a whole, near or within a cluster of houses.
- it should never be placed in a isolated location where no supervision could be ensured, nor should it be placed by the side of roads or on busy business corners location, at the very door-step of influential persons such as the village headman who could put undue claim upon the CWP, is to be avoided.
- the walking distance for most users should not normally exceed 250 metres.

The Health Inspector, with the support of the District Commissioner, is to serve as the local action man during that phase.

Stage 2

- Completion of survey including any required topographical and technical data. Checking suitability of locations and number of CWP's.
 - Preparing design and estimates.
- Part of these activities are often initiated concurrently with stage 1 in order to guide and accelerate the required community involvement.

Stage 3

- Construction (No actual construction is to start unless the Agreement has been filled).

Stage 4

- Preparing for the official opening: numbering physically and prominently each CWP.
- Updating the Agreement forms (consumer lists and tap committees).
- Making an initial payment (MK 1.00 per family is suggested, but the actual contribution is often nearer to MK 0.50 or even lower).
- This stage is to be supervised mainly by the District Commissioner with the assistance of the DLVW local (water) operator and the health inspector.

Stage 5 (Operation and Management of CWP's. Recovery of water rates)

- The Consumer Group as a whole and more specifically its Tap Committee are responsible for proper use and management of the CWP: keeping it clean, discouraging intruders, and maintaining a loose control of water utilisation. Although payments are made monthly on the basis of 29 tambala per cubic per cubic metre, the yard-stick of 1 tambala for 2 pails (or about 36 litres) which includes a large safety factor has proved useful for the groups to control their level of consumption and to guard against possible billing errors.
- Maintenance (such as replacement of tap washers ..) is the responsibility of the DLVM plant operator but result of negligence or theft such as loss of padlock key or disappearance of a tap is the responsibility of the consumer group.
- Water rates for CWP's are recovered as follows:
 - CWP bills are issued directly by the plant operator to the tap committees at the time of monthly meter readings. This is needed to avoid the delays experienced with normal account bills which are prepared at regional offices.
 - The plant operator using a standard control from monitors the monthly balance of each CWP and warns any defaulter. In principle CWP accounts must maintain at all time a favourable balance: this is safety, even for the users themselves against sudden departure of one or more members.
 - Monitoring of accounts is also carried out at regional level to guard against possible errors and irregularities.
- Perpetuation of satisfactory operation and management is dependent upon continued moral support from the District Commissioner who is consulted as needed. In addition, a Centre Water Council consisting of prominent local officials and residents is to serve as support body to the tap committees and is to meet more or less informally with them every three months, notably to help avert eventual complications and to safeguard against misuse of collected money. Individual members of these councils have not been effectively functioning.
- Present use level would be of the order of 10 litres per head per day.

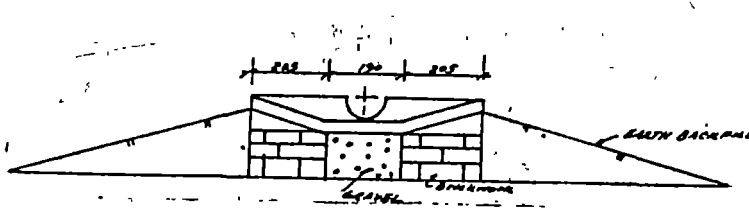
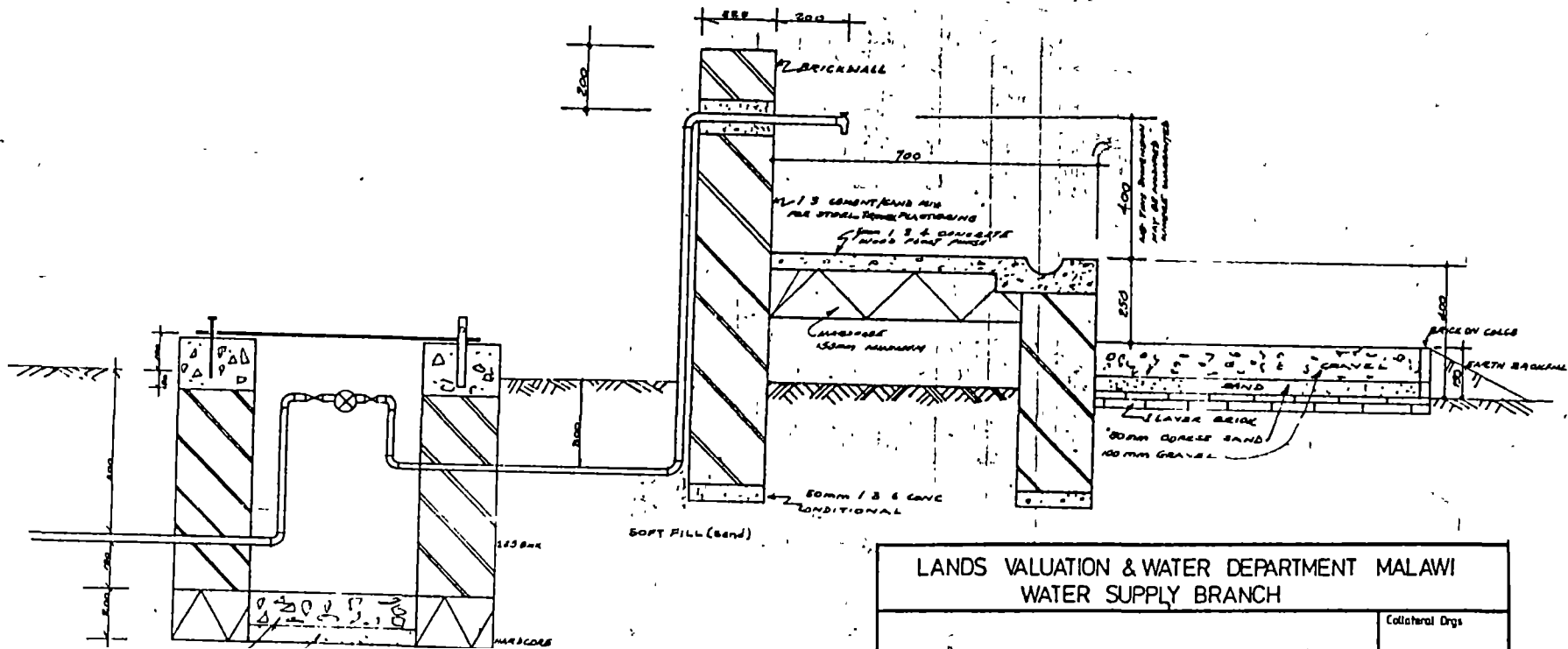
Conclusion

The project is expected to complete activities by June 1985 by which time some 600 CWPs would have been completed. Though all constraints or problems have not yet been solved, the results achieved so far are encouraging. The strong interest and determination showed by DLVM to have the system operate efficiently are guarantees that an efficient monitoring mechanism (including also revitalized Centre Water Councils) can be implanted in the months ahead.

Besides, the project has generated a great amount of information (on planning and implementation of this type of project) and is in a position to generate, through its network of committees, useful operating data (actual number of users, actual per capita consumption, operating schedule...). The writer hopes to be able to devote time to the compilation of these information and data so that Malawi and, through WHO, other countries as well could take full benefit of the experience gained.

Raymond Carrie
WHO Sanitary Engineer

P.S.:The strong commitment and support of the Government and more particularly of DLVW officials and staff have been essential to any progress achieved so far.



| | | | | |
|--|----------------------------|----------------------|--|-------------------------|
| LANDS VALUATION & WATER DEPARTMENT MALAWI WATER SUPPLY BRANCH | | | | Collateral Docs |
| COMMUNAL WATER POINT STRUCTURE | | | | Amendments None |
| DESIGNED | C Mkhambere | CHIEF CIVIL ENGINEER | SCALES Dimensions in millimetres to 1:10 SCALE | DRAWING No WT/01/173 |
| C Mkhambere | B Durrin | CONTRACT No | | |
| DRAWN | CHECKED | | DATE | |
| Jambirika | S C De Souza | | OCT 1983 | |
| TRACED | CHIEF WATER SUPPLY OFFICER | | | |

These guidelines are used by the MA. It is a copy of the guidelines from the PSWS-Project only with little changes, done by the MA himself.

The text written in small letters is our commentary if things are working differently in the field. The first remark we want to give is that a CWP community can stay a year without a Committee (source: MA)

Nature and composition of tap Committees

- Tap Committees comprise not less than eight elected members of the consumer group, Chairman and Vice-, Secretary and Vice-, Treasurer and three Committee Members.
- The Committees are elected by Universal Suffrage in the presence of a representative of the Water Authority and sometimes a WC.
- There should be not more than two or three men in the Committee. A Committee of only female members is allowed.

"CWP 32 has 6 men and three women in the committee. In the past the committee was existing of only women but they did not respect each other".

"Nowadays most of the committee members are female. Men have to go on duty. Meetings are most of the time during working hours and a committee is then supposed to be there" (source: ward councillor).

- The Committee should be representative of all Sections of the Communities e.g. both interests of the well to do and the less better off should be represented.
- At least one of the three key leaders in the Committee Chairman, Secretary or Treasurer must have had minimal basic education up to standard 6.

During the election of the Committee at CWP 54 the MA never asked the women about their education.

- Leaders in the tap Committee should never combine functions. That is the Chairman should not at any time carry out the duties of the Treasurer or Secretary and Vice Versa.
- Should any one of the Committee Members resign or leave the area, by-elections should be held within 30 days to replace him/her. The committee will have to meet and discuss the Issue. They would propose by-election day, venue and time. They will then notify the Central Water Council and the Plant Operator.

There are several CWP which do not have an acting committee at the moment.

Elections

- Voting for the replacement Committee Member will proceed in the same way as the initial polls which elected the current Committees.
- All users will be informed well in advance of the elections and a suitable day convenient to most of them will be proposed.
- On the polling day at least 60% of the eligible voters should be present for the elections to go ahead. If there are less than 60% of the voters present, the elections should be postponed until some other time.

"There must be 30 (60%) consumers of CWP 56 for the election of a new committee. In case they do not turn up the election will still take place because there is no acting committee at the moment, everything breaks down and there is no cooperation".

- Eligible voters should be all heads of households, both men and women. In a family only the man and wife will be eligible to vote but not the children.
- During the elections the Chairman of the electoral team will ask anyone in the group to propose a name (nominate someone) and another should second by standing up or raising a hand. The procedure will be repeated until three people are nominated.
- Voting will either be through raising up of hands for the preferred candidate or voters to physically stand behind their preferred candidate. Whichever method is used, the electoral team will count the votes and declare the winner.

General responsibilities of the Tap Committee

- To aid Communication between Water authority and users.
- To organise self-help, voluntary labour for construction.
- To enforce rules and prevent misuse of Water Facility.
- To draw up rules to be observed by users of the supply.
- To collect financial contributions from users.
- To make suggestions and assist with health education
- To ensure that Water Point Surroundings are kept clean by assigning households to clean the place in turns.

Everybody should come here to clean the area

- To report to the Centre Water Council or the Water authority any problems arising from the water point.
- To report to the MA any technical problems.
- Fixing of opening and closing hours convenient to all consumers.
- Ensuring that children do not play with the water facility.
- Fixing of appropriate rate to be contributed by each household. The CWP Chairman may also select if found convenient to pay a fixed monthly amount provided that a favourable balance is maintained.
- Ensuring that Water Point Key is kept by someone who is accessible at all times.
- Settling disputes arising from the water point.
- Convening consumer meetings to discuss important issues such as charges in opening and closing hours, debt accounts or the need to raise rates. N.B. Water rates can only be raised in exceptional cases when current consumption can not be paid for by current contributions or when the water point is heavily in debt. Even in such cases the rate should not be illiberally raised. The MA should be notified and consumer meeting convened to approve the raise.
- Maintaining simple account records.
- Preventing unnecessary wastage of water at the Water Point.
- Ensuring that all funds collected from consumers are deposited at the Treasury Cashiers and correct General Receipts obtained and endorsed in the MA's record book
- Ensuring that money collected from various families are recorded on the "household contribution" Sheet preferably in the presence of the contributor.

These records must be open to scrutiny of the WD, and the consumers group. Two copies of the "household contribution" Sheet, should be given to the MA every three months. One of these is to be remitted to the Central Water Point.

- At least two Committee members should be present when depositing the money at the Treasury Cashier.
- Decide on method of rate collection. Options available include asking consumers to pay them to bring their contribution, at the water point on a given day when the Treasurer will be receiving the cash or the Treasurer and one Committee member visit consumers in their house to collect the money.

"The committee should not go the houses to collect money".

"Some of you say that the committee has misused your money. From now on you have to gather and say how much you have collected after paying, the committee should show you the receipt".

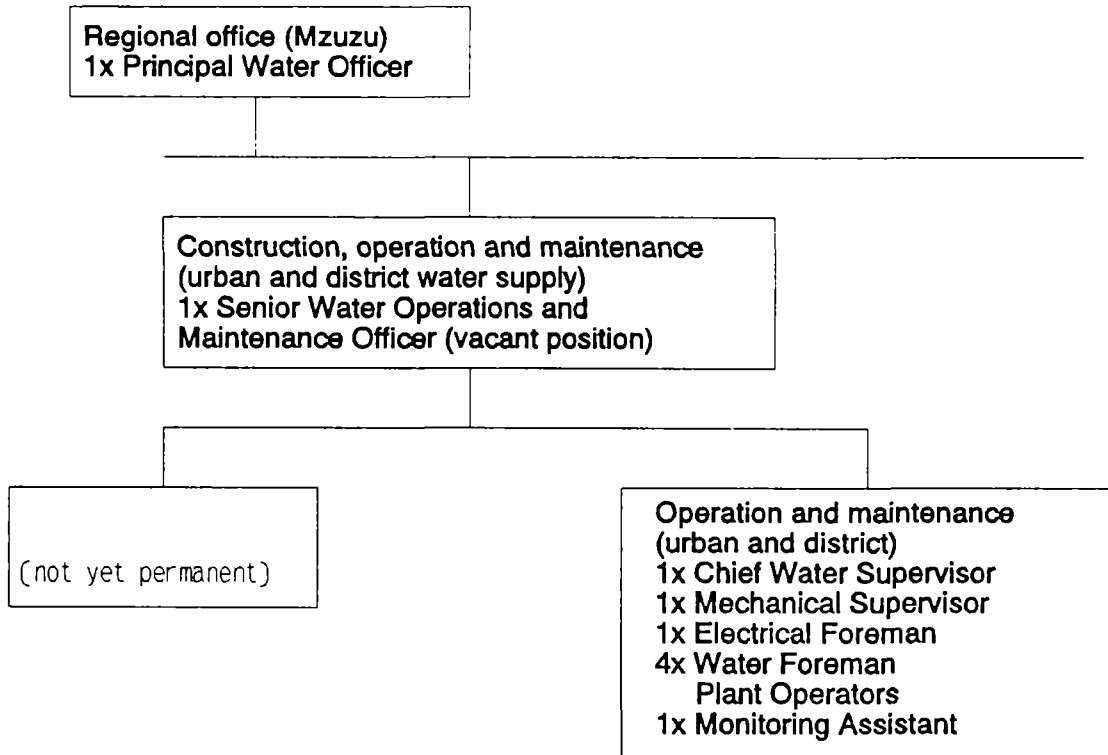
- Decide on action to be taken on these people who fail to pay their monthly contribution.
- Decide on action to be taken on poor families or old people interested to use tap water
- Accept new members at the CWP. N.B. Membership of the Water Point is open to everyone living in the area. However the only condition for accepting new members should be their capabilities to pay for the water. Committee members should also screen members to ensure that they are not deserters from other water points it will then either accept or reject the member.
- Visit homes of deserters to try and convince them the importance of potable water.

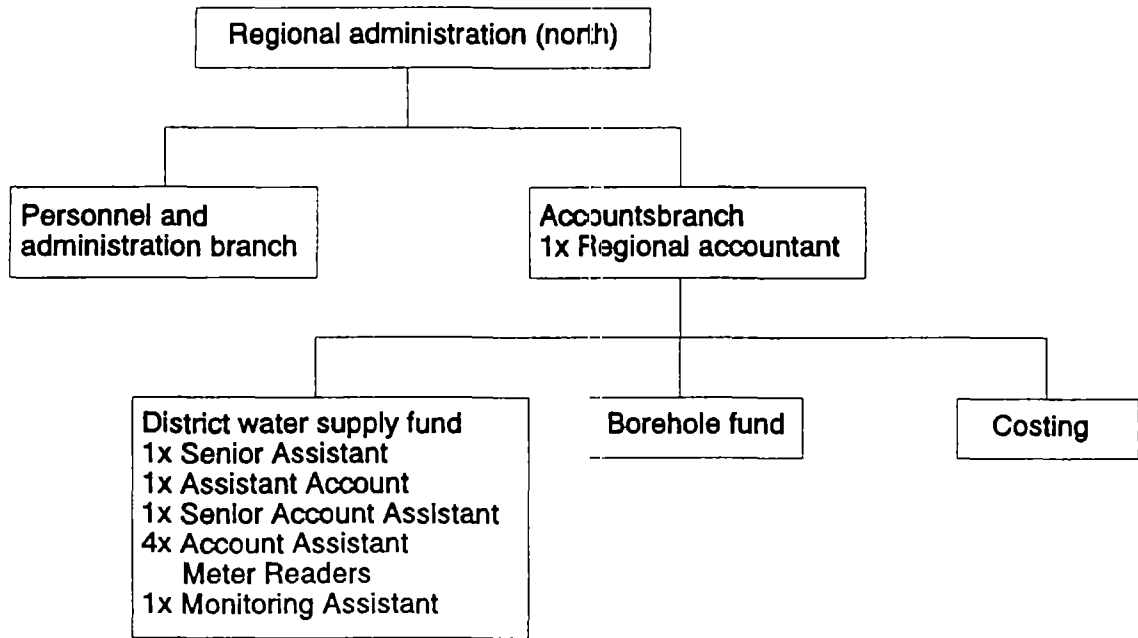
Check list I

- A balance Committee will have.
- Both men (for traditional authority) and women for direct interest and strong motivation.
- Both old persons (for authority and respect) and young people for initiative and advice.
- Persons with relevant modern and indigino's knowledge e.g. teacher, plumber, mechanic modern or traditional health worker.
- Representatives from all factions and socio-cultural groups.

Some more guidelines heard in the field for the community:

- Although you pay MK 2.00 every month you always should listen to the instruction of the committee
- You should respect and listen to the committee members.
- It is restricted to put buckets on top of the structure. It is dangerous.
- The whole community should look after the taps.
- Contribution has to be paid every month at the CWP place and to be brought there.
- After collected they can come back to see the general receipt The people should have confidence in the committee
- When somebody needs to go to hospital during opening hours and has not draw water she may ask the chairman to draw water after opening hours
- In case a new consumer is coming in the community has to help her and explain her the things about the CWP, because nobody should draw water from shallow wells which are not protected when it is not necessary. Everybody is free to enter the community.





General responsibilities of MA and MR
(copy received from MA, Ref. 5)

The Monitoring Assistant (MA) is responsible for plant operators of the Northern Region, the meter readers of city of Mzuzu and is even the MA for Mzuzu itself. In Mzuzu there are no plant operators, they are working outside the city. Mzuzu has MRs, one for the CWP and 7 for individual connections. The MA is the boss of the MRs and monitors the CWP's. These guidelines the MA obtained through workshops.

1. Meter Reading

The meter reader must make meter readings every month as for other accounts.

But Water Point meter cards must be packed separately.

Water Point meter slips (after required data has been transferred to the Remittance Advice) must be forwarded to Water Rates Section at Regional Office as for other accounts. However, these slips must be packed separately.

2. Remittance advice

The MR must fill the Remittance Advice and issue it to the Tap Committee at the time of meter reading or soon after. The Remittance Advice is the actual bill. The practice of having this Water Point bill remitted by the MA has been adopted to avoid delays resulting from normal practice of billing. It has also the advantage of fostering communications with Tap Committees. The MA monitor payment of money collected from consumer to Government Cashier by demanding Tap Committees to bring in General Receipts for endorsement.

They should repeatedly remind the Tap Committees and consumer groups the need to abide by the policy and notable requirement of maintaining a Credit balance.

3. Tap Committee records

Money collected from various families is recorded on a "household contribution" sheet which also indicates the number of families using the taps. Two copies of the committee records should be given to the MA at the end of each quarter.

One of these is to be remitted to the WD and one retained by MA.

4. Control Sheet

The MA should also maintain a Control Sheet which is a Balance Sheet for individual CWPs. The necessary information for each month are:

- Consumption m³ Obtainable from Plant Operator files and from copy of remittance advice (with Tap Committee or cashier)
- Consumption MK Computed from Recover
- Payment Obtainable from General Receipts (GR) (with Tap committee or Cashier)

The date of the GR determine the month against which the payment is to be posted. On occasions, there can be two or more payments made the same month.

5. Technical consultant

As a technical consultant to the Tap Committee, the MA should always be alert and responsive to complaints relating to technical problems in the Water Supply.

The normal procedure is that all technical problems noted by the Committees will be reported to the MA who should make every effort to rectify the problem without delay.

It should be stressed that delays in repairing broken taps or pipes will lead to frustration by users of the water supply, worse still it may force them to go back to their old contaminated supplies at the rivers or ponds, thereby posing serious health risks.

Technical problems may also be noted by the MA and MR on his routine weekly inspection of the Water Points. This inspection must be thorough in order to affect preventive maintenance.

All leaking taps and valves should be noted and repaired immediately.

Current maintenance policy on this project states that all breakdowns will be maintained at the expense of the communities themselves.

The consumers should be requested to make contributions towards procurement of spare parts. Actual maintenance tear as normally.

Replacement of valve box lock should also be done by the Communities themselves.

6. Monitoring accounts

As has already been stated above one of the challenging tasks for the MA is to monitor Water Point Accounts, and be able to shortlist heavily debted accounts for action.

Experience has shown that when left on their own, the consumer groups can try everything possible to avoid paying their monthly contributions. On the other hand Tap Committee leaders may use the collections for their personal use hoping to replay back in future.

These has been instance where consumers have tried to avoid payment by giving various excuses while Tap Committee leaders deliberately delayed remitting collected money in order to invest it in their own business activities.

The results have always been devastating. Bills have been known not be settled for many months. In such cases the MA's role is to remind consumer groups and Tap Committee leaders to fulfil their obligations- to pay for all water consumed and remit all the money collected to government cashiers.

This is why it is necessary that apart from reading the meter and issuing bills once in a month, the MA should also follow-up with routine visits to the Water Points where he can discuss with Committee leaders and some consumers a week or so after issuing the bill.

This alone will greatly help to encourage consumers to make their contributions promptly and discourage Tap Committee leaders from holding collections unnecessarily.

Experience has shown that in all centres where operators follow this procedure, accounts records are very good and Tap Committees very strong. But in places where operators are not active such that they don't follow-up the bills issued, accounts records are very bad, in some places non-payment have been tolerated for as long as 36 months. Tap Committees in such places are therefore very weak.

7. Dealing with deseters

It should always be noted that bad/debeted accounts at the Water Points are only symptoms of a major disease. unless the diseases is diagnosed the problem cannot be solved.

The must be referred to the Accounts Section at Headquarters where an Amortization System will be worked out to assist the communities settle their debt account within a given period of time. This is worked out in such a way that it does not place undue pressure on individual budgets.

On top of their monthly contributions, households are asked to add as little as 10t or 20t in order to amortise the debts within a short period of time.

(NOT UP TO DATE)

8. Monitoring tap committees

A part from monitoring Water Points Accounts, the MA should closely monitor the performance of a Tap Committees.

A lot of problems have been known to be caused by ineffective committee. Where Tap Committee are not working effectively cases of misappropriation of funds, abuse of power are not uncommon often leading to bad account records and desertions by consumers leading to under utilisation of the Water Point.

The MA should therefore always make sure that Committee are complete at all Taps. A complete Committee will not only have the Chairman and Vice, Secretary and Vice, Treasurer, but also two to three Committee Members.

If any of the above named leaders are misusing, that Committee is incomplete and the MA must inform the Centre Water council to arrange for By-elections to fill the post. By-elections should proceed as outlined in the Section on Tap Committees.

In case where Water Point-accounts have very big debits the MA like a doctor must first diagnose the cause of the debts. The questions which should come to mind first are:

- Are consumers not contributing?
- Are they contributing enough?
- Is there someone who is withholding remittance or misappropriating the money?

The investigation can begin with a casual discussion with the Tap Committee leaders to find what their problem is.

If after such a discussion these are signs that things won't improve, a public meeting should be called for, where consumers should be made aware of the situation and their views are sought.

By this time the MA should have diagnosed the disease and drawing from his experience, solutions could be sought.

There are instance where the problem is not identified either because the Committee is new or leaders are withholding some information. In yet others the problems may be traced to have been caused by factors beyond the community's control, e.g. previous water authority staff misbehaving or high water consumption which was not matched by an increased monthly contribution per household.

If the committee are complete, the MA should make sure that neither of the leaders combine roles. That is the Chairman should not also work as Treasurer or Secretary and Vice-versa.

The Committee should also hold meetings regularly, where problems can be discussed and decisions made jointly.

Experience has shown that often the Committees stop working as soon as they are elected and only one individual takes over the work which was supposed to be done by a complete Committee.

This problem arise mainly because there were no written Guidelines given to the Committee, it is only told (annex 7) and no efforts were made to train the Committee leaders.

Now that guidelines have been developed for the Committees and told by the MA during the election meeting the MA should be alert that all Tap Committee should be active and functional.

The MA is often looked at as an Adviser of the Committees and as such should at regular intervals hold meetings with them to clarify some of the points in doubt by the committees.

Some of the problems to watch out are:

- Chairman or any other leaders should not become too powerful as to override committee decisions. This condition leads to a lot of other problems since the Tap is operated as a personal facility of the particular powerful leader as a personal facility of the particular powerful leader. As a result consumers loose confidence thereby killing community ownership of the facility and may desert the Water Point or develop reluctance in contributing monthly rate.

- The Chairman or his relatives should make monthly contributions. This can best be achieved if the committee is complete and members check on each other

- The Chairman or any other leader is not misappropriating surplus funds contributed by consumers. There has been cases where monthly contributions exceed consumption, and instead of depositing all the money at the Treasury Cashier, leaders have been known to pocket the surplus and settle the actual bill only.

There are many ways to investigate this. One is by simply monitoring monthly consumption against monthly payments. The MA should be suspicious if exact amounts are remitted monthly to settle bills. Investigation can be done by simply noting the total number of consumers and individual monthly contributions. It is likely that a surplus will be detected.

Regular checks on total number of household and individual contributions against monthly consumption and monthly remittances will discourage leaders from pocketing surplus money thereby leading to the Water Point accumulating considerable Credit Balances.

- The MA should also try to investigate the number of individuals who, by special arrangements with the Committees, are paying extra money monthly just because they use much more water-say for business purposes. It has been observed that this extra money is never recorded in accounts books of the Committees.

The MA should also note that opening and closing hours for the tap were not unilaterally decided by the Chairman and the other leaders that the time is convenient and agreeable by all consumers.

- Public standpost valve box key should be kept by someone polite and accessible to all at convenient times. Not, minor issues like this have been known to cause divisions among communities leading to frustrations and desertions.

It is important to note that the Water Point cost the Government a lot of money to construct and as such they should be utilised to the maximum therefore low membership is both uneconomic and undesirable as well as a waste of capital.

9. Monitoring

The MA should be able to carry out preventive maintenance that is measures aimed at avoiding breakdowns. He should as well be able to do repairs that is, bringing the standpost back into operation after breakdown.

The key to good preventive maintenance is regular inspection of standpost paying attention to minor symptoms or malfunctioning.

Maintenance programmes in the standpost centres should therefore include the following activities:

- Making any small adjustments such as bolt tightening
- Inspection of the standpost once a week by someone with mechanical knowledge and appropriate tools noting and collecting any minor malfunctioning observing whether top washers or other parts needs replacement.
- Arranging for a person or a team with sufficient equipment to visit every standpost at regular intervals or as necessary to carry out overhauls and repairs.
- Procuring and holding in stock the necessary spare parts and ensuring that they reach the areas of need without delay.

Before the water rates are given the water consumers are classified (Nov 1992)

1. Commercial consumer: a consumer whose services to the public are sold at a profit. Or a consumer whose final accounts treat "Water consumed" as an expense in the Trading, profit and loss account in order to arrive at his/her net profit at the end of every accounting period. Good examples are: Stores, Groceries, Maize mills, Water selling points, Restaurants, Resthouses, Private and Public companies offices, - workshops, - industries, Private doctor's surgeries and all other consumers which follow under this class.
2. Institutional consumer: A consumer whose services to the public are offered free or at non-profit charge, eg; Government offices, - schools, - hospitals, - institutes, Local authorities public conveniences, - dispensaries and all State Residences. All other organisations which fall under this class may be treated as an institutional consumer.
3. Individual consumer: A particular consumer who uses water for domestic purposes only or a consumer who uses water at a residing house a good example of which is any consumer whose meter is connected to a residing premises.

Commercial consumers pay more than institutional consumers and the last mentioned pay more than the individual consumers.

4. Communal water point: CWPs are meant for a village community whose rate of 46 tambala per Cubic meter is fixed. And in no way should they be confused with Local Authorities water selling points (KIOSKS) which are classified under a commercial rate. Care should therefore be taken in dealing with the two water points.
5. Meter rental fees: Is applicable on all other class of consumers except CWPs. Remember this is a monthly fixed charge of MK 2.00 imposed by Government due to the following reasons:
 - Repairs on the damaged meter government makes.
 - Replacement of meters damaged which can, in any, not be repaired.

A financial year is from April till March.

District Water supply fund tariffs structure for CWP

| | |
|-----------|------------------------|
| 1984/1985 | MK 0.20/m ³ |
| 1985/1986 | MK 0.23/m ³ |
| 1986/1987 | MK 0.23/m ³ |
| 1987/1988 | MK 0.23/m ³ |
| 1988/1989 | MK 0.23/m ³ |
| 1989/1990 | MK 0.23/m ³ |
| 1990/1991 | MK 0.25/m ³ |
| 1991/1992 | MK 0.29/m ³ |
| 1992/1993 | MK 0.46/m ³ |

District water supply fund tariffs structure 1992

| Consumption per month | Individual | Commercial | Institution |
|------------------------|-----------------------|-----------------------|-----------------------|
| Up to 8 m ³ | K 5.89 | K 5.89 | K 5.89 |
| 8 - 30 m ³ | K 1.50/m ³ | K 1.84/m ³ | K 1.65/m ³ |
| > 30 m ³ | K 1.61/m ³ | K 2.48/m ³ | K 1.98/m ³ |

example: An institution uses 55m³/month. The costs are:
 (8 * MK 5.89) + (22 * MK 1.65) + (25 * MK 1.98)

District water supply fund tariffs structure 1993

Commercial consumption per metered connection

- a) up to 8m³ per month
 minimum charge being: MK 6.18
- b) 9 to 30m³ per month: MK 1.93/m³
- c) in excess of 30m³ per month: MK 2.60/m³

District water supply fund tariffs structure 1992

Individual consumption per metered connection

- a) up to 8m³ per month
 minimum charge being: MK 5.89
- b) 9 to 30m³ per month: MK 1.50/m³
- c) in excess of 30m³ per month: MK 1.61/m³

District water supply fund tariffs structure 1991

Individual consumption per metered connection

- a) up to 8m³ per month
 minimum charge being: MK 3.68
- b) 9 to 30m³ per month: MK 0.94/m³
- c) in excess of 30m³ per month: MK 1.51/m³

District water supply fund tariffs structure 1990

Individual consumption per metered connection

- a) up to 8m³ per month
 minimum charge being: MK 3.20
- b) 9 to 30m³ per month: MK 0.82/m³
- c) in excess of 30m³ per month: MK 1.00/m³

District water supply fund tariffs structure 1989

Individual consumption per metered connection

- a) consumption form 0-6m³ per month MK 2.50 fixed
- b) consumption in excess of 6m³
 upto and including 8m³/month MK 0.36/m³
- c) consumption in excess of 30m³/month MK 0.90/m³
- d) consumption in excess of 8 m³
 upto and including 30m³ MK 0.78/m³

C.M.P. NO 37

(MAN) LEDGER

NAME The Chairman ACCOUNT NO. 14/37

ADDRESS _____ CR _____

| DATE | REF No | DETAILS | DEBIT | CREDIT | BALANCE | OLD BALANCE |
|------------|--------|------------------------------|-------|--------|---------|-------------|
| | | <i>P/F</i> | | | 68 46 | — — |
| 10/11/92 | 92 | CU 432119 | | 27 00 | 41 46 | 65 46 |
| 19/11/92 | 92 | CU 432222 | | 6 00 | 35 46 | 41 46 |
| 3/12/92 | 92 | CU 431012 | | 40 00 | (4 54) | 35 46 |
| Dec. 1992 | | 3605.580 = 80 ^{ms} | 36 80 | | 32 26 | (4 54) |
| 7/1/93 | | CU 4511662 | | 38 00 | (5 74) | 32 26 |
| Jan. 1993 | | 3695.840 = 90 ^{ms} | 41 40 | | 35 66 | (5 74) |
| 8/2/93 | | CU 453869 | | 32 00 | 3 66 | 35 66 |
| 8/3/93 | | CU 700456 | | 44 00 | (40 34) | 3 66 |
| Feb 1993 | | 3695.840 = 87 ^{ms} | 40 02 | | (= 32) | (40 34) |
| March 1993 | | 3695.840 = 87 ^{ms} | 40 02 | | 39 70 | (= 32) |
| 6/4/93 | | CU 864919 | | 36 00 | 3 70 | 39 70 |
| April 1993 | | 3832.674 = 127 ^{ms} | 58 42 | | 62 12 | 3 70 |
| 10/5/93 | | CU 866285 | | 40 00 | 22 12 | 62 12 |
| May 1993 | | 3920.729 = 88 ^{ms} | 40 48 | | 62 60 | 22 12 |
| 7/6/93 | | CU 962944 | | 58 80 | 5 80 | 62 60 |
| June 1993 | | 3939.684 = 19 ^{ms} | 8 74 | | 14 54 | 5 80 |

METER READING

Card Number 14/37

Address The Chairman, C.M.P. NO 37, Masasa.

Date 20-6-93 Current reading 3939.684

Date 20-5-93 Previous reading 3920.729

Consumption 18.955 ms

Signed (Meter Reader) [Signature]

For Office Use only

Cubic metres at _____

Cubic metres at _____

Cubic metres at _____

Fixed charge _____

K t

8-74

Initials of Officer _____

REGIONAL CONTROLLER OF WORKS (N)
PRIVATE BAG 2, MZUZU

REMITTANCE ADVICE FOR COMMUNAL WATER
POINT.

FOR : CWP NO. 37 CENTRE MZUZU

ACCOUNT NO. 14/37 LOCATION MASASA

REMITTED :

BY CWP Chairman Mr/Mrs/Miss

Received : K GR. Date

CASHER'S SIGNATURE

DATE STAMP :

COPY FOR CWP (NOTE : CWP ACCOUNTS SHOULD MAINTAIN
AT ALL TIME A FAVOURABLE BALANCE. PAY PROMPTLY THE
MONTHLY CONSUMPTION AND ANY ADDITIONAL AMOUNT AS
REQUIRED TO SETTLE ARREARS).

REMITTANCE ADVICE FOR COMMUNAL WATER POINT

FOR CWP NO. 37 CENTRE MZUZU

ACCOUNTS NO. 14/37 LOCATION MASASA

REMITTED :

By CWP Chairman : Mr/Mrs/Miss

Received : K GR. Date

CASHER'S SIGNATURE

DATE STAMP

Water Consumption

For Month of June 1993

Cubic Meter : 19 m³

Kwacha : K 8-74

Plant Operator (W) V. J. ...

Arrears : K

Date 28/6/93

Water Consumption Arrears :

For Month of June 1993

Cubic Meter 19 m³

Kwacha K 8-74

Plant Operator (Water) V. J. ...

RECORD OF COMMITTEE FOR CWP NO. 37 PAGE 1 (OF PAGES)

CENTRE..... A/C NO. 14/37.....

HOUSEHOLD

CONTRIBUTION RAISED

YEAR 1992

| NAME OF PERSONS | NAME OF HEAD <u>OCT.</u> | MONTH OF <u>NOV</u> | MONTH OF <u>Dec</u> | MONTH OF <u>JAN</u> |
|------------------|-----------------------------|------------------------|------------------------|------------------------|
| 1 MR KAOMBE | K2 | K2 | K2 | K2 |
| 2 MR KASAMBALA | K2 | K2 | K2 | K2 |
| 3 MR MSISKA | K2 | K2 | K2 | K2 |
| 4 MR MOWE | K2 | K2 | K2 | K2 |
| 5 MR PHIRI | K2 | K2 | K2 | K2 |
| 6 MR KAONGA | K2 | K2 | K2 | K2 |
| 7 MR NKHOMA | K2 | K2 | K2 | K2 |
| 8 MRS KHONJE | K2 | K2 | K2 | K2 |
| 9 MR KABAYE | K2 | K2 | K2 | K2 |
| 10 MR NGAMBI | K2 | K2 | K2 | K2 |
| 11 MR BANDA | K2 | K2 | K2 | K2 |
| 12 MR BANDA | | K2 | K2 | K2 |
| 13 MR SANDWE | K2 | K2 | K2 | K2 |
| 14 MR KANYANGU | K2 | K2 | K2 | K2 |
| 15 MR MUYAGU | K2 | K2 | K2 | |
| 16 MR NKANDANIRE | K2 | K2 | K2 | |
| 17 MR CISALE | K2 | K2 | 3/12/92 | Out A |
| 18 MR CHILAMBO | K2 | K2 | K2 | K2 |
| 19 MR CIZUMIRA | K2 | K2 | K2 | |
| 20 MR HALAWA | K1 | Admitted | Admitted | |
| 21 MR PHIRI | | K2 | K2 | K2 |

11 NOV 1992
PRIVATE BAG
MUSU

DEPARTMENT OF WATER SUPPLY
DISTRICT WATER SUPPLY
08 FEB 1993
PRIVATE BAG
MUSU

SUB-TOTALS for this page

Totals all pages.....

Payments by Committee

| Date | GR. No. | Amount |
|----------|---------|--------|
| 10/11/92 | 2219 | 127.00 |
| 16/11/92 | | 16.00 |

Reported By
Chairman W.N. KAOMBE
Secretary NGAMBI
Treasurer KASAMBALA

The financial management instrument used also to operate the CWP is DWSF. The district water supplies are currently being operated in the format of a treasury fund, the District Water Supply Fund (DSWF). The purpose of DSWF is that District Water Supplies (DWS) should be operated on a commercial basis and thus be financially self-supporting. Since 1980, DSWF has been operated by the water supply branch. DSWF is an autonomous fund on the Ministry of Finance administered by Senior staff of the WD. Expenditures charged to the fund include all normal operating costs and depreciation charges and all income flows directly to this fund. The main threat to its viability is payment discipline of the largest consumers.

Financial control of the urban water supplies is exerted throughout the District Water Supply Fund. The fund operates on a commercial self-funding basis without injection of subsidies or grants to enhance its finance both recurrent as well as development costs of all semi-urban water supplies in the country.

There are four regions for the DSWF: Mzuzu region, Lilongwe region, Zomba region and Blantyre region.

The main source of revenue is through the scale of water to consumers. All supplies are metered and consumers are charged in accordance with a national "stepped up" tariff applicable to all schemes. (annex 17)

Five years financial plan strategy most address equalisation of tap versus CWP tariffs. It must be remembered that normal customers invested a connection while CWP users did not. It therefore follows that CWP water tariffs at present level need not be discounted. While potentially sensitive DSWF should consider equalising CWP tariffs to the minimum rates of tap users. While this may appear to be equitable because CWP users have to collect the water it must be remembered that the CWP tap was provided free of charge while tap customers pay for connection. DWSF's strategy should be to increase rates over a three year period for equalisation of base rates in order to minimize the impact of adjustment among the CWP customers. (Ref.3)

All fieldvisits made to the CWP's are written down in this annex.

Monday 26th April

Fieldvisit to Chibabvi

Present: Monitoring Assistant (Mr. Msukwa)

In 1986 the first individual connections were constructed in Chibabvi. In 1984 all the CWPs are constructed.

At the moment the CWP's only use 2 taps. There was too little pressure for 3 taps. There are no soak away pits at these CWP's. When the people tap the water they can put the bucket (before and after filling) behind the platform at the standing area. This standing area is a structure filled with little stones so that the water easily can filtrate and no sand will come at the platform. Sometimes people are putting their bucket on top of the pillar. That is very dangerous for the children playing around. It happened that a bucket was falling down on the head of a child and the child died. Even to leave a bucket full at the platform or standing area is dangerous. Small children can fall in the bucket and drown.

CWP 2 One of the two taps is broken. The MA will check at the office if there is enough credit so that they can replace the tap.

CWP1 Even this has a broken tap. He will do the same for this CWP. It has no lock on the cover of the meter chamber.

In case the credit is not there the people will contribute in stead of MK 2.00 an other MK 0.50 more so that they pay MK 2.50 next month.

CWP 7 There is a full bucket on top of the pillar. Children are playing around with the water. The MA is telling about the danger of that bucket to a woman. There is much sand on the standing area. The drain is very bad.

Every point has different opening hours. The committee and the consumers decide on which hours the taps will be open. It is not the WD to decide that. There are three committee members who can keep the key of the meter chamber cover. These are the Chairman, Treasurer and the Secretary. Most of the time it is the person who lives the closest to the CWP.

CWP 5 There are two taps. The drain is ending halfway on the road. The standing area is full of sand. The MA is talking with the chairwoman about the children who were eating sugarcane at the platform. Flies will come to the dirt. He points the woman at the dirty platform.

After that he tells us that the children are a problem because they make the tap places dirty. In Malawi, it is rude to tell another man's children what to do or not to do. The mother of these children will become harsh if somebody is blaming her children. When you blame another man's children even when you are a Chairman you are powerless. So it is very difficult to control the children. Children are playing in a muddy pool. The pools are very dirty. The MA has to look for the primary school. It is built recently and started this year. He also has to look for a certain CWP which he has to ask for at somebody.

CWP 8 There are holes right under the taps at the platform because of the buckets. These holes are filled up with water. There are also sugarcane rests. He is pointing the woman at the dirt. She has to laugh about that, maybe shyness. The standing area is full of sand and the drain is running in a sugarcane field. The chairwoman is coming, a bit nonchalant. She also gets point at the dirt. Then she becomes silent.

CWP 12 Two taps. There are big bricks at the standing area and sand also.

The MA is planning to talk to the teacher of the primary school about the playing children around the tap points.

All the houses up north were built recently. There is no CWP there.

CWP 11 The drain goes into a bigger drain which is full with water. There are three taps but only one is working. This one is placed false. There is only a little sand at the standing area. There are a lot of buckets, empty standing there. At this point there is a low pressure because of a lot of individual connections (10 to 15, estimate) made recently. (5th May, the reason that there was no pressure because of stones before the meter.)

A CWP should always have water otherwise people are going to look for an alternative and that is bad.

CWP 10 Three taps (2 of 3/4", 1 of 1/2") 1 bucket. The standing area covers a bit sand.

CWP 9 Standing area has mud and grass. The drain goes to a bigger drain which is only 1 meter away from the tap. The meter chamber is not locked.

A MA should visit 2 CWP's in the morning and 2 CWP's in the afternoon. You have to make good appointments otherwise you won't find people at the CWP's.

CWP 4 Mud, the platform is full of water. A child is making the cover of the meter chamber open and tries to open the main tap. "Don't do that". It looks a mess. This is the worst CWP. The hole is full of water, this is the responsibility of the WD but the people did not report to the office. What about the Water Meter Reader? They recently elected a new committee. There will be a meeting to explain the tasks of the committee and consumers on Wednesday. He is explaining to the people that the children get sick of the germs in the water and that it will contaminate the tapwater.

Chibabvi has a Ward Councillor. His name is Mr. Njikhoo. He is working for City Council.

The WC: "All CWP's are overused. Actually there should be 10-20 families at one point but there are 80 families or more. When there are 80 families it is difficult to explain to them what we expect from them to do". The City Council can disconnect a tap when it is very dirty but they never did that.

They just tell people to clean the tap and they will clean it. Such a "powerful" man just shouts to the women and they will clean it but the problem still exist. Next time it will be the same if they are not told why to clean it.

The CWP numbers 1,2,3,4,11,12 have a new selected committee. Actually the MA should be involved with the election of the committee but he says he is very busy. The WC is helping with this job.

Now we are in Chibanja, at the Salisbury line

CWP 13 Three connections, two taps of 1/2". The one which is disconnected is properly closed. There is water in the drain at the end after 2 meters. The standing area is full of sand and grass. The buckets are standing on the pillar. Children are fetching water. The cover can not be closed or locked.

Chibanja has also a WC. There are 80 houses using this CWP 13.

Wednesday morning 28 April

Fieldvisit CWP 4

Present: Monitoring Assistant, Ward Councillor

Reason: Meeting concerning the responsibilities/broken water meter.

The mechanics (3) start to replace the water meter. The new one is a "castle meter optima 2000". The old one has been broken down for about six months. The reason why they did not replace it was that there were no meters in stock at the office. The meter is fixed with the use of a plastic bag from the local supermarket in stead of a rubber ring. Tape was used for the "screwdraht" to close proper. We saw that the stop cock and the gate valve were still leaking but they did not do anything about that. Also one tap was leaking and could not be closed properly. So the MA brought a new tap (1/2" which is MK 27.08). This CWP had a debit at the office records but during the meeting it was found out that they had payed the bill of April, which was MK 102. They had only a little debit and that MK 102 was not yet added to the records. So the tap was theirs now.

Four chairs were brought for us and an umbrella. The meeting is opened with a prayer of one of the consumers. It is still raining.

The WC starts with a speech. We three are introduced. There are only 24 women present, while there are about 80 consumers.

The MA starts with his speech. He is standing and speaks in Chitumbuka about the responsibilities of the committee and the consumers. The WC is translating this for us in English:

The committee should not be rude to consumers; some people clap. They should be concerned with the consumers. Consumers have to pay MK 2, each month; some people clap. They should not delay the payment. They have to trust the Chairman. Everybody has to have equal benefits of the CWP. They have to pay the first or second day of the month. When they do not pay their contribution, the responsibility of the committee should be to restrain these people from using tap water.

The MA is making excuses for the delay in replacing the meter.

He goes on; women should fill the bucket, carry it home before filling a second one, so that other consumers do not have to wait for long. It sometimes happened that they fill five buckets at the same time.

He is not satisfied with the turn-up of the consumers. There are only 24 women of the about 80. He explains that we are students, came to have a research on CWP. When not all the people are turning up they do not get a proper view of the situation (maybe we do). Nobody else than the people from Water Supply should repair things. It can happen that a bad man come to replace a good element for a bad one. People should only draw water within the arranged opening hours. The issue cleanliness (there is a argue about it). All consumers should have the responsibility of keeping the tap place clean and well maintained and keeping the drain open, so water has a free run-off.

The number of consumers can change day by day, because everybody is free to go to another CWP, says the ward councillor.

During the meeting some mothers are breastfeeding their babies.

The MA speaks, the WC is a member of the Centre Water Council (CWC). Normally there is a District Commissioner(DC), who is the head of the CWC. In this case the Mayor is the head of the CWC. There is a DC in Mzimba, but he is not concerned with the CWC in Mzuzu.

The WC is telling that the growth rate of Mzuzu is 7% at the moment. More details are at City Council.

There was a question of a consumer, that if a Treasurer or Secretary wants to withdraw because of frustration, the Chairman can take that responsibility untill the next election. If they really want to skip they have to plan the election sooner.

The MA is telling that all the consumers are on the list of payment.

Thursday morning 29 april
Present: MA

Fieldvisit to Masasa

Monitoring Assistant speaks,

There is no difference between ordinary CWP projects or CWP projects with PSSC support. He points at places which have no water.

CWP 49: A old woman is coming with the key for the cover lock. With a couple of other women she is telling to Mr. Msukwa that some day there was somebody coming to their CWP and asked for money for the water used. This person was not someone from the WD, so they gave him nothing. Mr.Msukwa has told them: when somebody comes to them and asks for anything concerning the water, do not give him anything. That is why they reported this case to him.

There are a few individual connections in the whole Masasa, about 10-15 he estimates. Here there are no difficulties with pressure. He is planning to ask the Project Manager at Headquarters if the WD could take over the maintenance of the drains, because it is difficult for the users to maintain themselves; the cement is too expensive.

The CWP is not standing on somebody's premises. In case the CWP should stand on somebodies plot, the person could say this CWP is mine. After this he says: it happened that were constructing the CWP on somebody's plot, then it was difficult to say; stop constructing!

Thus, probably a mistake by the people who surveyed the area. Later he said again: a tap point is not standing on somebody's plot, it happened that people are constructing their house nearby.

- CWP 43: With his booklet he makes sign to a child, who is standing against the tap, that she has to leave. We are counting about 40 children around us.(we are the attraction!) We are smelling urine. He says to some women that the bucket, which are standing at the standposts and are filled with water, is not allowed to stand that long at the standpost. The water will be contaminated. The women will not drink it.
- CWP 51: Around this CWP they wanted to construct 5 CWP's, but they only constructed this one. An old man is coming to greet us. His name is Mr. Sapiri and worked until 1981 at the office of WD. He was treasure of this CWP, but now there is new committee (very interesting to know). A older women is coming and starts to chase away some children, because they were polluting the tap point. She complaints about the drain and the meter is not running, maybe to much sand. Perhaps the meter is not running for 3 to 4 months. They ask: how they could buy cement. The MA says when they have a credit I will give them the money to buy cement, they coming to my office and handing me the receipt. Then, the WD can send someone for fixing the drain. The MA asks them to clean the bucket place, that would be no problem there are stones enough around here. The people are complaining about the large number of consumers. There are people who are taking water from the stream, which is not very up-to-date.
- CWP 39: A woman is washing here clothes near the CWP. She is the chairwoman. Close to this CWP are individual connections for local brewery.
- CWP 37: Has a very clean bucket place, they get these stones from the stream.
- CWP 35: He makes clear, with a hand movement, that the women who are taking water have to shut the tap.
- CWP 36: Close to this CWP are 1 or 2 individual connections.

A lot of meters are not working (In Masasa probably CWP 48,49 and 51). He has to check at the office which meters are not running. This happens, because the main line breaks now and then (very often, now).

People can buy water at individual connections for MK 4.5-5 per month or 15 tambala per bucket.

Toilet should not be near the house. The pit should be more than 4 feet deep. We saw some three or four metres away from the houses.

With the construction the bucket-place was filled with water. On the bottom there should be big stones covered with smaller stones. The people are using the stones in and around their houses.

The soak away pit has to be filled to the top with stones.

Stream is muddy, about 20 l/s. A bridge, made of trunks and lats, has made it possible people can cross the stream (dambo (swamp)) easily.

At the bridge we can see the water has uncovered a pipe line.

On the road upstairs to CWP 41, erosion has uncovered a pipe line (most steep roads are heavily eroded). From CWP 40 up, the road is very dirty, the rain has washed a lot of carbage in the holes.

Masasa has a primary school, 4 years old. The school has a private meter. The school is too small for all the children, thus the different standards have different schedules.

Masasa is part of the Nkhata-bay district, they speak the Tonga language.

Tuesday 4th May

Fieldvisit Chibabvi, Salisbury

Present: Monitoring Assistant, Ward Councillor

Reason: responsibilities of the community after the election of a new committee.

CWP 12

The meeting was announced last week on Wednesday 28th.

25 buckets are waiting to be filled. It is 8 o'clock. About ten children are sitting on the CWP. We have a small conversation with the children in our best Chitumbuka.

The WC is asking the children to collect their mothers. At the moment there are three women present. Chairs are collected for us. The platforms of the CWP's in Chibabvi are wider than in Masasa. The water meter chamber of CWP 12 is full of water, the stopcock is leaking. It is only a matter of tightening it but we did not bring any tools. The water meter is not running.

The new committee was already formed at the end of April. Present at this election were MCP officials, and the WC. The community is proposed to give three names for every position. After that they vote. They know themselves the best who is able for a certain position. When you are elected for a committee member you get a higher status. Now a day three-quarter of the committee is female. Men have to go on duty. Meetings are most of the time during working hours and a committee is then supposed to be there. The Chairman was not present, another committee member has to explain the reason of absent.

There are 60 households at the moment with an average of 7 or 8 members in each household. Also relatives of people come to the city and stay at the household to use the facilities of the town.

The members of this CWP bought themselves a book for registrate people for the fees. It was their own initiative. They started with it in January 1992.

At 9 o'clock the meeting starts. There are 15 women and one man present. First of all we pray. All the committee members are standing up. The Vice- and Secretary, Treasurer and two committee members are present. The Chairman and the Secretary are men. Also we stand up and greet the people. Mr Njikho is telling the people about our research.

The MA starts addressing who has come and apologize for the difference between his respect and theirs in the two languages.

To the point:

- Although you pay MK 2.00 every month you always should listen to the instruction of the committee
- You should respect and listen to the committee members.
- It is restricted to put buckets on top of the structure. It is dangerous. There are also children who listen to the MA.
- The whole community should look after the taps.
- Contribution has to be paid every month at the CWP place and to be brought there.
- After collected they can come back to see the general receipt. The people should have confidence in the committee.

The WC takes over:

- People should be united.
- When there are people not paying the fees that is rude. In stead everyone should tell him/her to stop drawing water from there.
- When somebody needs to go to hospital during opening hours and has not draw water she may ask the Chairman to draw water after opening hours.

Are there any questions?

There are no questions of the consumers. An old lady stands up. She is from Mzimba and is visisting her son. She tells that it was very interesting to listen and was surprised about the lot of attention which was payed to the subject.

Some questions are given to the public to check if they understand the things which have be told.

- When there is a funeral the tap should not be closed.
- In case a new consumer is coming in the community has to help her and explain her the things about the CWP, because nobody should draw water from shallow wells which are not protected when it is not necessary. Everybody is free to enter the community.

There was a question from Marcel if the people knew that the water meter was broken and if so if they were drawing more water that time. They knew about the broken meter but did not draw more water. What was the reason why they did not clean the standing area.

The contractor of the road was replacing the little stones for big ones because he needed these. The MA is telling the people about the use of the small stones of the standing area.

Somebody died so after drawing water all people were supposed to go to the funeral. Originally there were three taps but the third one was producing to little so they disconnected that one.

There is no chief in Chibabvi. The WC and the Chairman are working hand in hand. But things will change with the multiparty. When a councillor has problems he goes to the Mayor. The city is different from the district. The DC is concerned with the CWP in Mzimba district but not within Mzuzu.

The reason for electing a new committee is that if a committee overstayes they can misuse the money, they can become too powerfull and they can stop paying the money. Election are there every one or two years. In the past there were only men in the committee but were misusing the money and sometimes started a grocery with it. In 1990 women came in the committee. Women are afraid to missus money They don't like to go into prison.

The MA is telling that the people in Masasia are more educated (this concerning the standing areas and small stones) but there WC is not so strong as the WC in Chibabvi.

Tuesday 4th May
Present: Monitoring Assistant

Fieldvisit CWP 14&15

We are in Salisbury.

- CWP 14 This is the worst we ever saw. The whole standing area is full with water (about 5 cm). You easily can see the germs swimming. The committee is not working hand in hand. Only one person is acting. Two months ago the place was very clean concerning MA.
- CWP 15 Children are playing with water. There is a house nearby the CWP but it was build after the CWP. The owner of that house had a request to move the CWP to another side but there is no fund for that and meanwhile the CWP was first. Some people of this CWP walk 1.5 km to get to this tap.

CWP committee is supposed to give the spare key to the office for the Water Meter Reader but the people loose the key quickly so they come to the office to collect the spare key.

Wednesday 5th May
Present: Monitoring Assistant

Fieldvisit CWP Mzilawaingwe & Chiputula

People are not supposed to turn the tap before the meter in the meter chamber (gatevalve) but only the one after the meter (stopcock) which is not always happening in the field.

- CWP 18 Low pressure. The user take the top of the tap back home to protect against thieves. Stopcock and meter are leaking.
- CWP 19 No pressure and only one tap is working because of that. It takes 5 minutes to fill a bucket of 10 litre. Stopcock is leaking. Previous they had a other meter from which is still laying in the meter chamber.
- CWP 20 The ground around the CWP is taken away because of erosion. There is enough pressure. They are close to the main line. You can see ca. 50 cm of the fundament. In stead of a stopcock they have a gatevalve.
- CWP 21 Big mess of water nearby. About 2m ground is eroded about 50 cm. you can see the fundament. There is pressure.
- CWP 22 Top of tap they take it home.
- CWP 23 They take the upper half of the tap home otherwise thieves will take it. Surrounding eroded about 30 cm, fundaments can be seen.
- CWP 25 Ground eroded about 30 cm.
- CWP 26 It is very crowdy at this CWP because they have pay-day. A lot of consumers. The stopcock is leaking. Low pressure.

The MA is telling us that it is difficult to find the CWP because previous there were not so many houses. He is visiting this area once or twice a year. He was surprised of the increasement of the number of houses.

- CWP 24 It has no water because of so many individual connections. They only have water from 4am-5am and from 4pm-6pm. Meanwhile they are drawing water from a selfmade shallow well.

Some of them go to other CWP and others go to a individual connection were they pay MK 5-6 a month. There is area coming through the tap. They were reporting to the office that a tap was broken but they could not find the right office.

Friday 7th May

Fieldvisit CWP 54

Present: Monitoring Assistant

Reason: responsibilities of the community after the election of a new committee

The meeting did not take place because of a funeral

Friday 7th May

Fieldvisit Zolozolo & Katawa

Present: Monitoring Assistant

The Water Meter Reader did not turn up. Maybe he wants to leave his job. The MA has already asked for replacement of the job. The MR is not doing his job very well.

CWP 31 They have made a pit at the end of the drain and planted some trees inside. There is sand in the drain and a little at the platform. Before they had two taps. They came to repair one but it was not working properly so they removed it. There are individual connections in the area around.

CWP 32 At this CWP they made a new drain themselves. They are working there at the moment and they also want to repair the platform and the meter chamber. They collected money from the users. The Treasurer is a strong person. He is there for 3 or 4 years now. The MA also gave them advice how to construct the drain to structure and told them to clean the standing area.

The map is not correct. CWP 54,55,56,57 are somewhere else.

CWP 30 There is erosion and you can see the fundaments. No drain. About 80-90 consumers.

CWP 59 This previous kiosk has a roof (iron sheet), six pillars, a concrete floor, the drain is made in that floor. The floor is about 5m*3m. There is a bigger drain all around the floor but with sand inside. It has a small platform.

CWP 61 It has six pillars but no roof. The drain is made in the floor again. There is a trap to the floor.

CWP 60 There are algs. It has a roof, six pillars, concrete floor but with holes.

Monday 10th May

Fieldvisit Zolozolo & Ching'ambo

Present: Monitoring Assistant

CWP 28 This CWP is not working because they were misusing the fund. The people now are going to individuals. It is grown by many weeds. Even with 10 people the office will try to open the CWP again very soon.

CWP 34 A lot of sand. There is no drain, the water is running directly from the platform on the ground. Meter is stottering. There is water on the standing area.

It is wet around the CWP. There are 8 people to fetch water (time:8.30). The stopcock is leaking and there is water in the meter chamber. The MA will send someone to repair the stopcock (or replace it for a new gatevalve). There is a lot of erosion around the structure. A child is playing in the water near the structure. (Why does the mother not warn the child? Maybe she does not know the danger also). With a plastic bag they are trying to repair the stopcock (still leaking). The MA is telling a woman not to clean a bath-bucket at the platform. That is something which has to be done at home. This month the meter was not working, now it started leaking. Although we found in the figures that the meter was not running.

A group of men is calling us while playing the game "bawa" (african game)
CWP 33 It is about 9.00 o'clock now. There is no drain. A lot of water around the structure. The standing area and platform are cracked from each other. There is water in the standing area and in the meter chamber. The MA is telling the people about the standing area. The monitoring assistant wants to change the middle tap, which is leaking, to the left side. More and more women are coming. Here there was a committee which was not working properly. Now they need to be given the guidelines. They have to prepare a meeting because there are also a lot of new members.

Why not making the standing area of concrete with a slope to the drain to which also the platform drains?

We think that sometimes during visits we are used as threat. We are introduced slimy.

CWP 54 Time 9.20. Deep holes, the platform is smaller the standing area you cannot see. The drain is alright. There are algs (moisture). The tap in the meter chamber is leaking. There came people to this point and told the people that they were from city. They replaced the tap (into a bad one). Here there is no committee so not everybody is paying. On Thursday there will be a meeting to elect a new committee. Previous there were so many people (have a look at the course). There is an overstayed committee. Before there were 100 people now there are 50 people. There are a few individual (4) connections around.

CWP 55 Time 9.40. Algs, wet around. There is a big pressure. The office came to repair the meter last month but it is not running. Small platform. The MA is telling them to clean their standing area and put small stones.

Maybe a small platform is better so that you would not stand on it.

CWP 56 Time 10.00. There are 8 women collecting water. The water is white because of the pressure. After a while it is completely clear. The water is warm also. Algs, wet around. It is siding to the north. The word "malaria" is used as a threat. There are also children collecting water and even a man. The MA tells to clean the standing area.

Sometimes the children look very dirty.

CWP 57 10.10. Erosion at the drain. Wet around. Children are playing with the water. There is a small platform. Big pressure. The MA tells some women to clean the standing area and put small stones in.

CWP 29 10.30. No drain, a deep pool with water near the structure. Erosion. You can see the fundament of both platform and standing area. The MA is telling the people about the selfmade drain of another CWP. (Why not to all the CWP's from which the drain was missing? Inconsistent). The people want to have the guidelines. The boss will send somebody from the office the repair.

The outside pipes never leak water. A woman is cleaning a pan at her house close to a plate of prepared pumpkin.

CWP 27 They made a kind of soak away pit themselves but there is a lot of sand and water inside.

Tuesday 11th May

Fieldvisit Chibanja & Lupaso

Present: Monitoring Assistant

CWP 52 Time:8.30

People are busy cleaning the area around the structure. They just put new big stones on the standing area on top of the wet place. It is not so wet around the structure. Near to the CWP there is a private connection which is leaking. It is causing a water pool. There are a lot of individual connections. We are near to the mainline.

CWP 53 Time:8.45

There is water in the standing area, it looks dirty and white. The taps are open and two girls are fetching water. The drain looks dirty. They have a selfmade soak away pit with big stones. A bit wet around the structure, there are a few big stones on the ground to keep your feet dry. The MA gives a speech about the maintenance of the CWP. 8 women, 10 children and a old man are listening. We are introduced.

We are wondering if the MA only mentions the bad things to the people or also good things. When we ask him he tells us that he told the people of that CWP with a garden that they did very well. What we were meaning was at each CWP itself the good and bad things so that the people are still motivated.

A CWP has to surround by a garden according to the guidelines. This he has told the people right from the beginning.

CWP 75 Time:10.00

Outsided area. The drain is going to a small canal for irrigation of the bananas. The meter chamber is full of water, the stopcock is leaking. There are 4 individual connections around and one primary school.

CWP 7 Time: 10.40

We found it again. The standing area is full of sand. The lock was there but it was open. A bit wet around the structure. There are a few big stones around the structure.

Thursday 13th May

Fieldvisit CWP 54 Ching'ambo

Reason: Meeting, election of a new committee

Present: Monitoring Assistant, Meter Reader (Mr. Chichumba)

First we passed CWP 57 and 55

CWP 57 The standing area is still a mess after the message of three days ago. Full of sand.

CWP 55 People are busy with cleaning the standing area. They collected stones at the road. There have a good size, some are a bit too big. We are wondering if these stones do not hurt the barefoot of the women but that is not so. They closed the stopcock inside but water is still running.

CWP 56

We arrive there at 8.45. The women at the tap do not know anything about the meeting. They start collecting the other women. Four chairs are brought for us. Mr Kamanga is the Ward Councillor of this area but he is too busy with the coming of the president of this Monday. He stays somewhere at CWP 60. A woman is falling on her knees before she is talking to the MA. Not all women are doing that. There must be around 50 consumers at this CWP. It is 9.05 now and there are 14 women. There must be 20 women or more for the election of a new committee. In case they do not turn up the election will still happen because there is no acting committee at the moment, everything breaks down and there is no cooperation. 9.10

There are 24 women now. The MA is explaining to us that he will be short today in telling the consumers about their responsibilities because he has a meeting at the office.

All women and children are sitting on the ground in front of us. We start with a prayer. We are introduced by the MR. The MA starts the procedure of the election. There are now 30 people. (a small girl is washing her feet with water from the drain). A Chairman, Vice-chairman, Secretary, Vice-secretary, Treasurer and committee members must be elected. The MA asks the women to come forward with a candidate. Three names are pronounced by the women (on the face of one of these you can see that she does not want). The MA pronounces the names one by one and the women have to vote by rising their hand. Some women are voting twice a time. They do so because they think that there are still too little representatives. There are 34 people now. 14 votes for Mrs. Mfuni, 11 for Mrs Nuambosi and 11 also for Mrs ?. For the Vice-chairman they have to vote again between the last two. Mrs Nyambosi wins with 24 to 7. She is not that happy. The same procedure for the Secretary and Vice-secretary. 18 votes for the Secretary, 9 for the Vice-secretary and 7 for the loser. For the treasurer there must be only two candidates. The new Treasurer wins with 16 to 15 votes. It is very hard to tell the raised hands because they are not constantly up. The remaining candidates become committee member. A fourth candidate is coming forward by the Chairman(?).

This all took half an hour.

The MA is now starting with telling the responsibilities.

1. Don't trouble the committee
2. They should not go to your houses to get the money (MK 2.00)
3. Everybody should come here to clean the area
4. Do not put water buckets on top
6. One who will trouble the committee they should report the name of that person to the office (water supply)

After point six the MA has to look at his papers

7. Some of you say that the committee has misused your money. From now on you have to gather and say how much you have collected after paying, the committee should show you the receipt
8. They should write all the names and bring this to the office of water supply
9. In some CWP's the members are not paying the money, now they are supposed to pay and their names must be the first
10. In the standing area they should put stones not sandy soil and when drawing water they should place the buckets in line. Small children are not supposed to draw water and they should not put the water buckets on top of the pillar. There are a lot of accidents
11. When coming to draw water do not come with more than one bucket and do not give water to someone after its time unless you knew that she or he has a big problem
12. If there is a funeral do not close the water
13. If someone is having more wives they should pay the money MK 2.00 per wife.

We notice that unless they did not have a committee they have a credit at the month of March. Meanwhile the plumber is repairing the stopcock with a plastic bag and trying to repair the tap also. The stopcock is turned open now and immediately children are trying to fetch water. The attention is tailed tail of a bit because of the children who get bored. Are there any questions?

We are asking if the committee now knows their duties? It looks like the MA is going to tell it right now. When there are problems the committee can go to the WC.

Question

- Is it allowed to put the bucket on top before drawing the water? That is not allowed
- What about people moulding bricks? They have to pay MK 1.50 per drum (of 75 litre). They also have to fetch water during open hours.
- Who has to keep the key? Anybody how is drawing water from here.
- Should they start paying this month or next month? This month on the 1th till 4th of the month.
- Some people are refusing to pay the money. That is stealing.

The children are making a lot of noise.

- There are troublesome people who do not pay and the committee is fearing to write down their names.
- People how come from an other tap to this taps for only three days, do they have to pay? They have to pay for the whole of that month. After that they have to go back to their own tap.

- How do we meet? They should close the tap during opening hours so that all people are coming to the place.

Before, during the previous committee they beat each other. The Chairman that time was beaten by consumers because they thought she was misusing the money. Now the husband of this woman found it wise to have their own private connection. She is at the meeting now to assist some of her friends.

The MA is telling the consumers that the students are here to see how they live and how clean everything is (threat?). The MA gives a blank form to the Chairman for filling in the names of the consumers. They know how to do that.

At PSSC projects a new committee gets a workshop/course of three/four days about their responsibilities so that they become very strong.

March they had a credit but now the credit is gone because of high consumption, the stopcock is leaking.

The new Chairman does not want to take the paper with the names of the committee members from the MR. She is hinting the Vice-chairman (good start?), but at last she takes it. The plumber starts digging in the standing area for cleaning. Deep down there are some small stones.

A woman is coming to tell us that there is a breakdown at CWP 57. We are going now (10.30) and leave the consumers of CWP 54 cleaning the standing area. How will it end? In June we shall come back to see who the committee is working.

CWP 57 The stopcock is leaking. It can not be closed and meanwhile both taps can not be closed properly. There are no stopcocks in the office. The design of the meter chamber is not good. It is very hard to work with tools inside. The screw-thread is worn.

The plumber is doing everything with a big tool which is flexible not with a fixed one which will damage less. The plumber is using a special tool for replacing meters.

When the cover is locked they still can go into the chamber to open the stopcock. Maybe that is the reason why it is broken down. The MA is telling them to put a block on top of the cover beneath the lock or the bore another hole beneath.

Some children (about 2-3 years old) are drinking the leakage water while they are putting the mouth on the tap. People here need a lot of water to explain something simple.

Wednesday 26th may

Fieldvisit to Chiputula CWP 22

Reason: Pilot testing questionnaire

Present: Monitoring Assistant, Meter Reader (Mr. Chichumba) and 30 community members

8:10

We are leaving Water Department by car and they are going to drop us in chiputula at CWP 22.

At 8:20 we arrive at the pilot spot.

Committee members of CWP 22

Chairman: Mrs.L.Konbowe

Vice Chairman: Miss. Polis Mwale

Secretary: Mrs.E.Hara

Vice Secretary:Mrs.Kanyinji

Treasurer: Mrs.Kachali

Commitee members:Mrs Nyirenda, Kachali, Nyirenda, Gelo.

8:30

Women are gathering around the CWP. At the moment 19 women are present. The MA says: "First we are going to have a pray and than I am going to ask if the committee is working."

One person got a form, but was not a member of the community so she gave her form back. There is a fuss about question nr. 6. Do they have to make an approximation for the distance from their house to the CWP?

It is taking about one minute per question. The people are discussing a lot. They do not know how many litres are going into a bucket. There is some laughter once in a while.

9:05

A woman is going away with the form. There are difficulties about how to fill in the questions. (We explained the MA how they should fill in the different type of questions). They just tic in the circle is that all right? The MA and MR have to explain a lot. We are also trying to assist.

9:07

The most are at question nr.9

Some of them are writing the same answer above they think is the right one others just tic the right answer. A lot of children are coming, one child is already walking with a form. We tell this to the MA. A woman (driving force) chases the children away. One of the children is filling in the form, because his mother had to leave. At question nr.9 they remark that they clean the surroundings of the tap every day (we just started the answers with weekly as possible answer).

9:25

Children are rolling on the ground without underpants (talking about anal and orale contagion). The sun is bothering some women, they shift to shadow places.

9:28

A woman is leaving with her child and a old woman is called for by a child. A lot of them are working on their own now.

9:35

Some of them are already with question nr.33. A man is filling in the question for an older woman.

9:45

One is leaving, but is coming back after a little while. Some of them went to their houses to fill in the questions. The first ones are ready around 10 o'clock. A little while later they all finished. Some of them are happy they finished the job and make this sound with their tongue. They thank us by going a bit through their knees (like a bow) and hold the right arm (with which they are shaking hands) with their left hand. To us it appears a bit lowly with lot of friendliness. Then they all left the side.

The MA said, there were actually too many questions. The women were worried that they could not finish preparing the food for the husband on time.

10:20 A.M.

We leave the places.

Back in the office the MA they also had some problems with the last questions about diseases. They get malaria and diarrhoea in the rainy season (December-May). So a lot of people are ill at this time. In the other season the people are less ill.

1st June '93

Fieldvisit to Chibavi, CWP 6

Reason: Inquiry

Present: Monitoring Assistant, 2 Meter Reader (Mr.Chichumba & Mr.Mvalo), 35 community members

Time of filling in the Q: 9.20 - 10.35

8.15

We leave the office of the WD by car and the driver drops us at CWP 6 in Chibavi. Before we visited this CWP together with the MA the last time he was visiting, it was in '91 with the WC.

Chairman: Miss Soko
Vice Chairman: Miss Nyirenda
Secretary: Miss Chisi
Vice Secretary: Miss Sele
Treasurer: Miss Msiska
Member: Miss Phalo
Miss Banda
Miss Njakwa

8.40

The Chairman is coming to the CWP. She told us that the community members gathered at 8 o'clock but have left now for their duties. She is bringing four chairs for us and starts collecting the people. This time we are together with an other MR, Tenson Mvalo.

The MA did not have the time yesterday to inform the WC, Mr Njikhho, about the meeting. Women are coming to the CWP now but as a matter of fact there are more small children. The CWP has around 50 consumers the Chairman is answering us. The CWP is surrounded by seven big Eucalyptus and a lot a banana trees. It has a few bricks around the structure. 50 m from the CWP there is a pitlatrine and 50m to the other side there is a road of 3m width. There are only sitting 6 women now in front of the CWP. This time of the year it is the time for cutting the grass for the thatched roofs. Some women are busy with that, some went to their garden or to the market. We are a bit to late. After 8 o'clock, or after drawing water, the women are going their own way. Transport problems at the office of WD is our reason of delay.

8.55

Still there are only 8 women. But now they start to look for the others. The MA had a threat: "If you don't collect more than 20 people we are going to disconnect" (something which was wrong to say in our eyes). He knew that there were still women in their houses. A man is joining the group. It is a retired clinical officer but when the MA asks to give commentary on the puddle around the CWP he answers that is a subject for a health officer. He blames the City Council. "We are housewives, we are just around, it is not difficult to collect 20 people". The women speaks good english and the MA gives her already a questionnaire in english to prepare. The clinic officer is enjoying the children and we start to hand out the questionnaires to the women to go through it. 9.05

There are 12 women now. A girl of 12 years will fill in a form for her mother who is teaching at school at the moment (a bit strange, why is the girl not going to school while her mother is a teacher?) 9.10

There are 24 women now. We can start. The MA is introducing us. One of the women starts with a prayer, in english this time. Marcel is having a small speech, apologies for not speaking Chitumbuka and our delay and thanks the people for coming to assist us by filling in the questionnaire. The pencils are now handed out. People laugh about the size of the pencils. The clinic officer is leaving. The MA is explaining to the people how to fill in the form. At this time already a lot if children start crying. Three more women are coming.

9.20

They start with filling in the form, around 34 people.

"A husband in Malawi does not tell his wife how many he earns, that will give problems" the MA says, "so it is hard to answer that question for them. We try to assist people also. 34 women and 20 children, a whole class. A little girl pees just near the group of women.

In fact there are more young women than old women.

Marcel wants to make a picture of the writing women but it is again no spontaneously picture.

The MR for the CWP's (Mr. Chichumba) has come.

10.00

All women are still sitting after hand in the form. No hurry or just politeness.

"Some are not really educated. They know what to fill in but most of the time they can not explain why" says the MA to us. There is fuss about rubbers which disappeared. Fuss about only two rubbers but it is the principle.

There is no extra payment for maintaining the CWP.

The MA tells them that they will remove one of the three taps because of the pressure.

The people are thanked for their assistance.

The MA tells us later that some people were afraid to fill in the forms because they did not know what was going to happen with the forms but after explaining them there was no problem anymore.

3th June '93

Fieldvisit to Chibanja, CWP 62

Reason: Inquiry

Present: Monitoring Assistant, 2 Meter Reader's (Mr.Chichumba & Mr.Mvalo), 53 community members

Time of filling in the Q: 8.50 - 10.30

8.15

We leave the office of the WD by foot heading for CWP 62. No transport this time, because it is too close to the office easy to walk. Before we visited this CWP together with the MA the last time he was visiting this CWP in August '92 for the election of a new committee.

Chairman: Mrs Mphande (Nyakumwenda)

Vice Chairman: Mrs Gama

Secretary: Miss Banda

Vice Secretary: Mrs Nkhambule

Treasurer: Mrs. Soko

Member: Mrs Banda (Nyoliwe)

Nakita

Mama Chipela

Mama Nafukwe (Mrs Banda)

Mrs. Gondwe

The CWP is situated between new built houses of burnt bricks and houses of the same type in construction alternated with traditional houses. It is found about 100 meters west of the road to Karonga.

The CWP was a kiosk before, still to be seen at the construction like the roof and the big platform. The big platform however, is broken and muddy. The meter chamber has no cover and the people are closing the tap by turning the gatevalve and taking the wheel of the valve home. The WD is responsible for the meter chamber, but the MA has the excuse that it is difficult for the WD to provide a new cover. He goes on and says he got the same problem in Ekwendeni where they made a pipe around the gatevalve to prevent people are stealing water. They show us their payment list. They are already contributing for June.

It is 9:30

There are not enough people so the MA tells them that when there are not more than 20 people we can not hold the inquiry. There is some friction and one of the women says, when the others are not coming we are closing them off.

8:40

There are 6 women on the spot. Some left to call for the others.

The MA says, some women are cutting grass or went to the market. A girl is kneeling in front of us and greets in Chichewa.

8:50

The inquiry starts. A few children at the age of 13 also filling in the form.

9:00

More people are coming, meanwhile the MR of the CWP's has arrived. What strikes is that there are more older women at this CWP than at CWP 6.

There is this sound of a crowded beach at sunny summer day with a lot of children. It was good idea to let the people fill in the forms with pencils, so that they can erase an answer filled in wrong in their opinion. We are sitting along a sandy road on which people walk to the centre of the city. It is half past nine and still there are people coming willing to fill in the questionnaire.

9:35

The Treasurer hands in her form, she is one of the first. She is an older woman and very friendly. The Chairman is not present. We told the MA that they not have to give back the rubbers. "You can not do that", he says "people who will not get one become upset and become harsh".

10:15

Most of the people hand in their form, it is cooking time. At the end we are invited for a drink at the house of the Secretary. She lives together with her children, her husband passed away. The room she lives in is about 2 metres by 4 metres. The inventory is poorly, a iron bed with mattress and blankets some pictures on the wall, a closet with some cups three chairs. A few smaller things and that is it all on a concrete floor under a iron sheet roof.

8th June 1993

Fieldvisit to Zolozolo, CWP 32

Reason: Inquiry

Present: Monitoring Assistant, Meter Reader (Mr.Chichumba), lab chemist (Mr.Ngonda), 47 community members

Time of filling in the Q: 9.00- 10.45

Before we went to CWP 32 we past CWP 22 to take a sample of the water. There was no chlorine inside, a small quickly test was giving the outcome. Even the test of the water of CWP 32 had no chlorine.

The outcome is not told to the people. How is it possible that there is no chlorine in the water? Cl⁻ can react with organic matter in the water.

CWP 32 is situated at a high top of a hill. There are a kind of terraces around with bananas and maize.

It is 8.30.

The women are not allowed to draw water from now otherwise they would not stay at the CWP. The committee here made a new drain but did not made a soak-away pit. Even the drain is too short. They cleaned the standing area. There are around 10 women. The MA has malaria and is not feeling alright. The people thought that we only need the committee to have a meeting, that is was misunderstanding. They committee also repaired the meter chamber.

The last time that the MA visit this CWP was in November 1991. That time there was supposed to be disconnection because they had a very high debit. He discovered during the visit that somebody had misused the money and left for Zambia. In March 1993 a new committee was elected, the MA was not there but the WC, Mr.Kamanga, was there.

8.45

There are now 22 women. The message was of this meeting was sended yesterday. There are also 4 men present which organise the people.

Committee March '93

Chairman: Mr B.B. Honde
Vice-chairman: Mr M. Mhone
Secretary: Mr C. Wankhama
Vice-secretary: Mrs Kaponda
Treasurer: Mr D. Ngoma
Com members: Mr Kaira
Mrs M Gabadere
Mr Kawelani
Mrs Kachali

There are 6 men and only 3 women. There was a time that the committee was existing of only women but they did not respect each other. In March men were elected for the new committee.

9.00

More women are coming. We can start now. Prayer, explanation and handing out the forms and pencils.

9.15

There are 48 people now. The MR taps a boy on his back because he is playing at the CWP. By doing this he poses as if the CWP is belonging to the CWP which is not good. It would be better not to interfere with this kind of things but to show people that they have to take the whole responsibility of the CWP.

All the other consumers are at a funeral in Ching'ambo or busy with the affair of AG, the president. Some went for cutting grasses. The total filled in forms are 47.

8th June 1993

Fieldvisit to Chiputula, CWP 24

Reason: Inquiry

Present: Meter Reader (Mr.Chichumba), 23 community members.

Time of filling in the Q: 13.40 - 15.08

13.20

The MA is ill and not able to assist us. We are together with the MR. He has drunk alcoholics during lunch hours, you can see and smell it. We hope the women will not notice.

When we arrive the women are waiting at the CWP, not especially for us but for the water. This CWP has a big problem, the water supply is not reliable. The people tried to make the drain with sand and made something which looks a bit at a soak away pit.

Committee

Chairman: Mrs Mhoni
Vice-chairman: Mrs Phiri
Secretary: Miss Lola
Vice-secretary: Mrs Kamanga
Treasurer: Mrs Soko
Com member: Mrs Mhirenda
Mrs Mkandawire
Mrs ?

The area is sandy with the so-called traditional houses around 10 to 15 metres from each other. The CWP is found near a unfinished concrete building. People screen their compound with Lantana, sugarcane and bananas. There is a sandy road of 4 metre width crossing the area.

The houses with thatched roof and iron sheets take turns. There are no signs anymore of the rains of last weekend. Probably the water infiltrates quickly into the ground. There are many Eucalyptus planted and some Pine trees.

There are brought chairs for us. Inside the meter chamber which can not be locked, there is water. The gatevalve is leaking. "The pipe line near St John's hospital is an old one and too small. This is the reason why pressure is sometimes falling down", said the MR. They say that there is need for a new one. CWP 16 upto 24 have pressure problems. The Water Foreman knows about it. CWP 20 and 21 have a bit of pressure. Also the individual connections are a cause of this problem.

13.35

There are now 10 women. They are siting 4 on the standing area or at least what is left over from it. They do not know the exact number of consumers of this CWP. This month there were only 26 users paying.

13.40

There are 16 women now. A bucket of about 20-25 litres is filled in half an hour. The women here are young with an average age of 25-30 years. We started the meeting. After filling in all the forms we asked if they liked it. "No" was the honest answer of one of the women.

9th June 1993

Fieldvisit to Ching'ambo, CWP 56

Reason: Inquiry

Present: 2 Meter Reader's (Mr.Chichumba & Mr.Mc More Mtambo), 49 community members

Time filling in the Q: 9.00 - 10.40

8.25

A few women are drawing water. The consumers have put small stones in the standing area but forgot to dispose of sand first. There is dirty water around the CWP. The MR is closing the water. The CWP is belonging to the people but they don't realise that because they allow him to do that and the MR misuses this.

There is a car just near the CWP without petrol. It dissturbs us. The Chairman has gone to a funeral. There are only 3 women in the committee.

We start the meeting. The women are complaining because the questionnaire is in Chichewa. They all laugh a bit. The children at this CWP look a bit dirty and wearing old apart cloths.

The ages of the women are very different.

A little girl is deposing her faeces just near the crowd. Within a short time a lot of flies touch down this place. Nobody notice it. Children just keep on playing at that place. After half an hour the place is digged.

A man in the car is saying something about the question if it is fair to pay for the water. "Of course, who else have to pay if a new pipe has to be fit or repaired and how should you do that?"

After filling in the questionnaire the women continue with drawing water. It looks a mess, there is no order.

9th June 1993

Fieldvisit to Zolozolo, CWP 34

Reason: Inquiry

Present: 2 Meter Reader's (Mr.Chichumba & Mr.Mc More Mtambo), 45 community members

Time filling in the Q: 14.25 - 16.15

13.45

After some time waiting for one of the MR's we got some transport to Zolozolo. When we are arriving, there is nobody. A man is coming and tells us that they expected us this morning. Yesterday somebody told him that we would come at 8.00. The men had collected everybody this morning and stopped them from drawing water. The MR is going to inform the Secretary. The standing area is filled with medium size nature stones. There is no drain but you still can see the professional soak away pit and drain. The standing area is broken and around the structure they have put bricks. The area around the CWP is nicely swept. The ground looks like concrete. It takes long before the women are coming. In the afternoon they go to the market or have their knitting activities with each other. There is water near the drain which is coming from the meter chamber. The gate valve is leaking. The women look more friendly here and more neatly. There are again some chairs for us.

14.20

Only 17 are there now. At 14.25 we start with the prayer. The area is surrounded by eucalyptus trees. The houses are far apart from each other, \pm 50m. It is alternated with banana trees, sugarcane, and died out maize.

Most of the women failed to fill in the complete form and return the forms after filling in the first page. Some people have an answer in the mind, which is not on the form, but are not able to choose the most corresponded answer in the form.

The area Chairman of the MCP said that they had to form a new committee because there were some quarrels in the old committee.

Chairman: Mrs Chiumia

Vice-chairman: Mrs Mwandita

Secretary: Mrs Phiri

Vice-secretary: Mrs Muzinzc

15.45

At this moment a lot of forms were return to us because the women wanted to start with drawing water, but not yet all forms were returned so they still had to wait.

10th June 1993

Fieldvisit to Masasa, CWP37

Reason: Inquiry

Present: Meter Reader(Mr.Chichumba), Dann Clarke (Health Officer, City Council of Mzuzu), 21 community members

Time filling in the Q: 8.30 - 9.50

There are 4 women waiting for us. They said that we are late. The MR is just laughing a bit. This CWP has around 20 consumers, three of them are to the parents at "home".

Chairman: Kaombe

Vice-chairman: Chirambo

Secretary: Bota

Vice-secretary: Mrs Ng'ambi

Treasurer: Kasambaro

Comm members: Kabaghe
Harawa

Just near the CWP there are some big banana trees. This is very bad. It is used as a toilet. When there is no toilet or pitlatrine around this areas are very attractive. Children who have worms and easily infect the watersources. Waterborne diseases get spread by human contacts. Children and animals who teach the water pool on the platform and the taps can infect the water.

In rural areas the hygienic conditions are much better. They own there land and will easily invest in their land. Also they know that the access to the hospital is low, while in urban areas this is different.

There is a request for electing a new committee, because there are some problems:

- Some people do not want to pay
- The water is used careless. Sometimes the water is running while nobody is at the tap places or buckets are just left at the CWP.
- Some people has leaved the committee.

"Stories" means worked out interviews with different resource persons.

LILONGWE

Project Manager speaks,

12th April 1993.

The Project Manager has to do with all Community Based Water Development Projects in Malawi.

The CWP scheme in Mzuzu has 51 standposts, because not all the phases (4) were constructed. Actually 75 points were in planning, but they decide to skip the 4th phase, because it would lead to unequal distribution and injustice comparing to other schemes i.e. in Zomba. He said the money could better be used elsewhere.

There are no sub-committees in the CWP like there are in the PSSC Programmes. There is Centre Water Council (CWC).

The chairman of the CWC is the District Commissioner(DC).

Right beneath the CWC are the Tap Committees (TC).

In Mzuzu there is also a MA, but this person is not officially qualified, he was a water meter reader and involved in workshops. This MA is an addition to the original organization structure and influenced by the PSWS/PSSC, in the way that the MA had to make quarter reports, of records.

He gave a organogram of the Water Department.

Project Manager speaks,

14th April 1993.

Within the boundaries of town there should be piped water supply, served by DSWF. Rural (outside boundaries) there are boreholes and gravity water supply. The Mzuzu scheme was not selected by the PSSC, because they felt that the Regional Centre had some kind of support, in the sense of financial monitoring. He goes one about PSSC. At this time, after the PSSC period, there will be recommendations on management level, comparable to PSSC; they looking for some funds now.

He showed us a organisation structure of the region of Mzuzu.

Project Engineer speaks,

15th April 1993.

First you are going to look if its all possible in technical way. Then you are going to look for funds. A technician and engineer are send out to discuss with authorities of township (Chairman, DC, Townclark) to introduce the proposal.

They are going to talk with different political leaders of different parts of town.

These leaders choose and the technician and engineer will intervent. They check how many people are served and that the majority will take advantage. They ask the man why is it not possible elsewhere, because very often the man want to let the standpost be constructed nearby is own house. They are going check if there is enough pressure to confirm the standpost place. A rough design will be checked in the field to make proper design. The pipes are underground.

The water supply in the Mzuzu township started in the 50ies 60ies, they do not calculate with the CWP, which will be connected later; forgive me when I am wrong. You better ask this in Mzuzu.

Project Manager speaks,

15th April 1993.

The number of families (households) using a water point are between the 10 and 40. There is maximum of 300 people per water point. An average household existes of 5 to 7 people.

The suggestion that the Mzuzu scheme going remarkably well is only in the financially field. But going well also means there must be good committee, no mistreatment of people (people should be happy), no bad committed Chairman. A good water point does not means only a good balance.

The responsibility of the Water Department is the whole piped system including the water meter, after the water meter to the tap is the responsibility of the tap committee.

Sometimes CWC has a credit on the payment for the water. Then they open a bank account so that the Water Department can deposite the surplus on their account. This money can be used in relation to the standpost, i.e. repairs, replacements and the monthly water payment. This system is developing and is now in all CWP. The commitee is trying to have credits, because of migrating of people in the group.

Project Engineer speaks,

16th April 1993.

The story of how the piped system in Mzuzu developed is somewhere in the archives. The reports are placed in the archives, but by someone how does not understand technical terms and thinks it is rubbish, what means you will not find it. When you ask the people in Mzuzu they will help you in answering that question. One will say the scheme started in 1950, the other will say it started in 1949 because of this and that so you take 1949 and a half.

MZUZU

Water Foreman speaks,

19th April 1993.

The first construction of the CWP was in 1983. There are no files of the construction, not really. They started in phase I with Chibavi. It took a few months. There are 51 Communal Water Points. Phase II was in 1984. Phase II was Zolozolo, Chiputula and Musilawayingwe. Phase III is Masasa. Phase III started in 1985. It took few a months, maybe a year, because the delivery of pipes was delayed. CWP 75 is working.

The CWP's who are not working are: 69,70,71,72,73,76 and so on. A design of a CWP construction exist and is from 1983. A recent approved design of a CWP construction is from 1992 and applicated at the Rhumpi scheme.

There are 35 to 40 families at each CWP. It some cases the number goes up. The CWP's were connected on our main water line. The DWSF was laying up to 4 inch. From 2 inch to 0.5 inch the lines were bought by the CWP project itself.

The Water Foreman does not know who funded the CWP project. He does not know what kind of files are existing.

Phase IV was cancelled, from nr.70 up to nr.85. The people were already informed. The boundary of the CWP areas are given with the numbers of the CWP's. Nr. 1 -15, Chibavi, 16 - 21 Mzilawayingwe, 22-26 Chiputula, 27 - 34 Zolozolo, 35 - 51 Masasa, 52 and 53, Chibanja (these scheme was also in Phase II), 63 -68 were kiosks and planned to become CWP's, only 65 and 66 in Katawa became CWP's. 54 - 62 were not constructed. There were not all kiosks but some were just proposals. The city people told that some kiosks had there own funds so not all became CWP's. There is no workplan (for the phases). It was there but an engineer took it to Lilongwe. We did not see it. Maybe he took it to the USA. Before he was attached for the whole northern region to the urban water supply. There is nobody is concerned about the O&M of the CWP's. There are only water meter readings and records by the accounts people. At that time the people from the headquarters came to Mzuzu and looked were it was necessary to put a CWP. This time we put some awakening that there should not be too many people at one CWP. 35 to 40 should be at one CWP but it can easily become 70 - 80. After that the headquarters goes back to Lilongwe for designing. The Project manager came but there was not made a proposal for funds agency. He came and saw if it was some necessary and add one. Mr Carrie was from somewhere.

The cost of a CWP is about MK 5000. It is count out for one of Masasa. It includes two taps but the washing slab is not included. He gave us a design of a CWP (Drawing nr. wt/o/173. It is not a circle construction, there is only one line. Before the piped water supply existed, people took the water from the stream. There is one borehole around, a bit outside the city. The piped scheme that exists now can be extended, also for CWP's. There are already requests for some areas to construct also a CWP (proposals). Showed us a record of names (families), with their occupation, size of household etc. The pipe line to CWP was upgraded to 8 inch, so that these people also had water at night. The city people put kiosks in some areas, and they did not want us to go in again to put a CWP. He calls Masasa, Chibavi, Katawa and Zolozolo undeveloped areas. Masasa and Chibavi had a real water problem before.

Some of the kiosks were selling water at 1 tambala per bucket, at the end of the month the kiosk could not pay cost of water to WD. So the WD decided to close these kiosks and make them CWP's. Between 1981-1986 he worked for the CWP project. 1986 until now he is doing other jobs for WD. The taps are a problem (concerned to breakdown). When something has to be repaired, most of the time it has to be the tap. The rubber and spinroll causes the problem. The taps are not manufactured in Malawi, but can easily be found locally. A tap is about 21 Kwacha. The amount of money will be deducted from the bankaccount.

The Monitoring Assistant speaks,

20th April 1993.

He showed us Meterstrips which are taken into the field for reading the water meters, for CWP's as well as for individual connections. Once every months a Water Meter Reader is going into the field to read the meters. He starts at the 10th of the month till he is through. He fills in the meterstrips and take them to the office. He is doing that for both CWP's as for individual connections. He also fills in a Remittance advice form which is the actual bill (annex 19). The Chairman should come with the "household contribution" form (annex 20) to the office and pay the amount of this month. The amount of this money should be every month the same because every family of that CWP should pay MK 2.0 every month to the Treasurer. Most of the time they pay more then the amount of the bill.

The office keeps the surplus money so that in case they want to change a broken tap for a new one the office can reduce their surplus money with the costs of that tap. In case they don't pay the next month, the office will also reduce the surplus with that particular bill of the next month. From the office in Mzuzu the money goes to DSWF in Lilongwe.

Then there is also a Ledger card. It keeps all the financial records right from the beginning of each CWP.

Then there is another form for the records of the committee. The "household contribution" form gives an overview of four months of the payment of MK2.0 of the consumers. Sometimes the consumers are paying but the Chairman does not pay the office. Then they can check on this form. For every three months the MA makes a summary of the financial records of all CWP's and sends this to the headquarters where it goes to the Project Manager. This quarter records are from January - March, April - June, July - September and October - December. There are more CWP schemes in the Northern Region. There is Mzimba (23 CWP's), Ekwendeni (15 CWP's), Nkata Bay (12 CWP's), Chintcheche (2 CWP's), Chitipa (16), Karonga (38) and Rumphu. The Plant Operators reading the meters in these areas and will inform the MA in case there is a problem.

The MA gave us also a tariff structure of 1992. This is used for reading out the amount of money for every amount of consumed cubic meter water (annex 18). The MA told us that every CWP committee will be informed that there are coming two strangers so that they are prepared for that. A committee exists of a Chairman, a Vice-chairman, a Secretary, a Vice-secretary, a Treasurer and two or three committee members. There is no Vice-treasurer. There are elections to form a committee.

Monitoring Assistant speaks,

21th April 1993.

We check out together all the locations of the existing CWP's. So the final number of CWP's is 62 (It is from 1 upto 62 and nr 75) CWP 63 and CWP 28 are out of order because of problems with the people. They closed the valve.

There is an other very important form, the control sheet for CWP's account. He will give us a copy of that. Mzuzu is divided in areas. The individual areas are from 1 upto 13. Area 14 is for the CWP's. So 14/5 is CWP 5.

The Monitoring Assistant speaks,

22th April 1993.

The secretary is filling in the contribution raised form every month (the payment per household). The Chairman is supposed to be there when they are paying the money or filling the form. The Treasurer keeps the payed money (sometimes for four or five days). Then one of the three (Chairman, Secretary or Treasurer) can come to the office and pay the money to the water supply Cashier. The amount which they pay should correspond with the amount of the form.

There are no kiosks in the city Mzuzu anymore. The MA confirm that there are illegal connections, very often but he can't see it in the field. The Water Foreman should know more about that (maybe the word illegal is different meanings!). He is MA officially in 1986. But he was monitoring before. From July 1984 he was helping a friend who was an accounts assistant. He has attended three workshops. One was from 19/1 to 24/1 1992 at Luchenza, organised by PSSC. In 1986 there was one in Silima together with Project Manager. There was one in Zomba in 1985.

There are meetings with the tap committee together with the MA once a year (if he is not too busy) for the election of a new committee. The MA is telling to the new committee their responsibilities. When the MA is not available then the WC or MR can go for the election. The committee is also organising meeting within the community itself. When a new consumer is coming in the CWP community and this community has a credit he is supposed to pay the MK2 while others don't pay that month.

He is MA for the northern region except Rumphu. They left Rumphu over to another because they want to see the difference between them.

The Chief Water Supervisor speaks,

22th April.

If we ask him about the running cost of one cubicmeter he does not know and tells us that we should check at treatment works and find out ourselves.

The Water Foreman speaks,

27th April.

The community is asking for a CWP, then the WC is coming to the office. Sometimes local people come to the office with a request for a CWP. illegal connections are individual connections which has not passed through our office. We explained that in our field visit we saw a CWP that did not had any water, because of too many individual connections. Then he starts making excuses and tells that this problem not has been told to the office and that is the duty to upgrade such lines. He is sure there are no illegal connections. There are records of all water connections details. When there is a new connection the Water Meter Reader should be informed about it so he can read it. When he is not informed the meter is not read and this what he calls a illegal connection. When the MR notes a strange meter he reports this to the office and there they confirm the connections. In Phase I they, the city people, have never given any records. The WC is concerned with forming CWP groups. There is no Standard Agreement form. The people did not sign anything. Some CWP's have soak way pits of 1 metre deep filled with stones, they constructed these at the beginning. The reason we did not see any soak way pit means that they are all filled and need to be repaired. We working hand in hand together with Ministry of Health. The community was not involved in the construction of the CWP, all was done by the WD. The DC is the head of the Water Council. From the three Water Foremen. He is responsible for the CWP's.

3th May 1993.

The list of the payment in the office of the MA, we are checking the number of consumers for each CWP.

Some "household contribution" forms are missing and some are eaten by mice. At some forms they counted the lines wrongly.

- the consumers of CWP 20 left to CWP 19
- the consumers of CWP 31 left to CWP 32 because CWP 32 has a credit balance

The Monitoring Assistant speaks,

4th May 1993.

His direct boss is the Water Foreman and after that the Chief Water Supervisor. Also the Project Manager is his boss. He also has bosses at the account section. These are Senior Accounts Officer and Senior Accounts Assistant. Even he can turn to the Personal Officer.

Beneath him there are the Water Meter Readers both of CWP and individual connections.

A Peace corps volunteer speaks,

4th May 1993.

It happens that a pipes contain a lot of air, when they open the tap the meter is then spinning enormous and you get outrageous meter bills. So this was happening on a government school.

The Monitoring Assistant speaks,

5th May 1993.

After paying at the cashier the committee member comes to the office of the MA with the receipt. He write the amount in the General Receipt (GR) book. At the moment he is using the book witch started in 1990. The first GR book is missing. The MA found it wise to have such a book when he is off then colleague's can easily fill in that book and then they do not have to enter the ledger cart.

A Peace corps volunteer of Health Department speaks,

5th May 1993.

The average income of a household in these areas is MK 100 - MK 120 per month. The problem with maintenance is that people rent plots here in stead of owning it. That is why they don't want to invest. Maybe next month they will move.

8th and 9th May.

The MA had a meeting this weekend about individual connections. He had to instructed his own MR's.

The cook and watchman speak,

9th May 1993.

In the city the people think of money, but in the rural areas they do not. The people do not save money in any form. Our garden is the bank. Because the people at the top took a lot of our money things are going to change now. In the old days we paid a lot to the government. Now it is time to collect. We can go to the hospital without paying anything. We already pay a kind of taxes at places like the market or when you are cutting wood in the forest. So with coming of the multi-party system that will not going to change, only that there will be better conditions for us.

The Water Foreman speaks,

10th May 1993.

If we tell him that we did not find CWP 7 last Saturday he says that there is no CWP 7. (?)But we have visited it before.!!!

There are no water meters in stock of 3/4". CWP 4 got the last one. There are only 1/2" once for individual connection.

A owner of a individual connection speaks,

11th May 1993.

The bills of the water are inconsistent. The first month I pay MK 17, next month MK 36, next MK 72, next MK 7. Strange. He thinks the MR is not reading the meter every month. They should be controlled. Computerising the payment system will also improve a lot.

The Lab Chemist speaks,

11th May 1993.

He is taking the samples back home for investigation. The water samples are bacteriological not okay!

The Meter Reader speaks,

12th May 1993.

Tomorrow he will start reading the water meters for this month. He answers us that it will take two days. For Masasa he needs 6 hours. Even he is going to Lupaso. When he can not find the key he will return the next day to try again.

The Monitoring Assistant speaks,

12th May 1993.

At our office he tells us he was at Salisbury line to see CWP 14, which was so bad. Last Saturday they cleaned the standing area and put small stones in it for better drainage.

He tells us he is planning to ask for transport at headquarters. The reason why is that he gets tired from the long walks we made. Then he says: let's be honest, I have not visited some CWP's since 1990, e.g. CWP 75 or the ones at Ching'ambo. We showed him our graphics about consumption over the year 92/93. We told him that most CWP have high consumption rate in the month November. He explained that the people are making bricks at that time and using the tap water for making them. In this time it is not raining, so the stones can easily dry in the sun.

13th May 1993.

We have past CWP two times and both times the MA saw that the stopcock was leaking. Only after that a consumer of that CWP was coming personally to him when he was visiting CWP 54 nearby he undertook action.

On our way back to the office the MA was telling that last weekend there were people from WD (Lilongwe) in Mzuzu who came to look for places to construct new CWP's. He told us that there is already funds available

15th and 16th May 1993.

This weekend the MA is busy with the administration of the records.

The Storekeeper speaks,

17th May 1993.

There are three Storekeepers. They buy everything from the Centre Government Stores in Mzuzu. There are three Centre Government Stores in Malawi, in each region one. When they do not have what is needed the Storekeeper is buying it from hardware dealers in Mzuzu. Water meters are only available by the Centre Government Stores but they are now out of stock.

When they make an order for buying materials it needs to be signed by the Chief Water Supervisor.

A Peace corps volunteer of Health Department, speaks

19th May 1993.

When you want to organise something or speak with a certain person you just walk to the water point and the Chairman is coming to you. Then it is easy to collect people.

I wanted to make some holes for rubbish in Masasa to try how hard the soil is and to see if it is possible to construct some pitlatrines.

It happens that when people are not paying the bill the Chairman goes to the WC. The WC can send somebody from MCP to force people to pay.

In Masasa you also have old people who are village headmen. They owned their land for many years. Since 1968 Mzuzu became a city but people in Masasa still think that they own the land.

People sometimes even store their water in old paint cans or pesticide cans.

The Health Department is under the City Council. Health surveillant go into the field for house to house education and look at sanitary conditions. But people do not see it as a education but more as pressure, that they just come to tell what they have to do.

A WC has to speak english but no educational requirement is requested.

There are to many children. We had a "health control". From the 280 children below five years 120 were undernourished. They are more liable to diseases.

There is absolute no communication within the WD or with other departments like Health.

There are alternative sources. There was a sanitation survey I will check it. I know that the city wants to construct two boreholes. Although the WD (Lilongwe) says it is not allowed to construct boreholes in the city, when there is money donated they can not refuse.

A boy becomes a adult when he is allowed to wear pants in stead of shorts. That is around 12 years. In villages a boy of 16 years does no work anymore for his mother. That time it is only the children and the mother itself although the boy of 16 years is at his strongest age.

Children are playing at the dambo (swamp) sometimes the whole day without coming home so most of them just drink the water from the stream. You are sick you have a infection. If you drink untreated water your body has to fight against the diseases in the water and the infection meanwhile. It will take longer and cost more energy to cure than when you drink treated water.

To boil the water on firewood is very expensive.

I spoke with the chairman of CWP 42. She said that the maintenance of the drain was the responsibility of the water department. The people have to pay for the water but also have to maintain, that is some how not fair.

There was a fieldvisit for pitlatrines. Of the 56 houses 16 had a pitlatrine.

Sometimes people share the pitlatrine.

Traditional status. There are 62 or more witch doctors or spiritual healers in Mzuzu. First people go to hospital to get lose of the symptoms. After that they go to the witch doctor to get healthy for long time. Even high officials believe in this system. A witchdoctor died, he had his herbs and spices at the market. Nobody wanted to touch the things of the died man. The brother of the died man had to come from far away to remove the things.

When a boy is at a secondary boarding school they are respected when they come to their home village. A woman can never talk to her father-in-law. When she sees him on the street she has to kneel for him and ask him how he is. She can never eat with him in the same room.

What happens is that when construction workers have to make a structure they just use sand in between the stones and plaster it with a small layer of cement and just take the spared bags of cement back home.

The Mechanical Foreman speaks,

25th May 1993.

We have some questions. Who is your direct boss and who can give you orders? "It is the Chief Water Supervisor who can do". How are you concerned with the CWP? "What is CWP????? I am a Mechanical Foreman I am concerned with transport, with the engines etc". Sorry sir, when we have problems with our motor we come to you. "You are most welcome.

The Monitoring Assistant speaks,

25th May 1993.

The MR is not doing not his job what he is supposed to do but he is afraid to tell his boss. "It is very bad you know, to talk about somebody like that, I am not used to do that?"

The Water Foreman speaks,

26th May 1993.

What should be a minimum income to afford a individual connection? I don't know, that is hard to say.

The Monitoring Assistant speaks,

31th May 1993.

Last weekend was not good. We had a funeral of our friend, a plumber of our office last Friday. We went there. On the way back one of our drivers made a accident. The driver and three women died.

This week will be very troublesome. I am very tired you see. We try to visit CWP 6 or 62 tomorrow. I will ask transport to go there today to inform them. I am to tired to walk. On Wednesday we can not go to a CWP. Our president is coming. It is not good to have meetings at the CWP then. Maybe people think we have a meeting of multiparty.

While we are in the office of the MR's two women are coming in. They wanted to check how much their CWP 50 is in debit balance. The MA refuse to give the figure because he saw that they were carrying the list of payments of the members. If he would say the debit they would just pay that amount to the cashier pay and keep the rest of the money from the CWP members and share it which is very bad but clever!

The Community Development Officer speaks,

2nd June 1993.

In town people feel related, but in an other way they are in the villages. In the villages people are related through blood (family). In towns the people get related by living together and through funerals.

There are women who carry the water for other persons and people who stay in the area for a temporary period of time.

A woman at the age of 75 years, you can not allow her to pay for the water. These people are not calculated on the list of payment, but are also consuming the tapwater.

When you ask the people how long it takes to go to the CWP fetch water and come back, they also include the chats and waiting. Some of them take 4 buckets at the same time and fill them one after the other, so it takes a long time when you are at the end of the row.

Chibanja (which means "place near the air field"), Masasa and Chiputura are belonging to the peri-urban(= semi-urban) areas. Masasa is within the city boundary without paying for the services. This place grew from a village. A village headman was pointing the places where people could construct their houses. The ground was belong to the village. They were not looking at the availability and cleanliness of the water, because this was a woman's job. In these areas houses can be built according the space available (you go to the WC and ask if you can built a house on a certain spot, he looks at the place and when he thinks it is big enough to built a house you are allowed to built). In the other areas (like Zolozolo, Katawa and Chibavi the so called traditional housing areas) the building of houses is restricted and certain plots are made you also have to make a request at the City Council for an allowance to built a house. The difference between planned and unplanned is that in planned areas roads and plots were marked and constructed according a plan. In unplanned areas you can built the house that you are capable to built with your budget. In planned areas there are building restrictions.

A person in these are areas can not earn 500 Kwacha per month.

My driver has a salary of 125 Kwacha a month. Me in my best days working 20 years for the government and for a foreign project was earning 750 Kwacha per month. So I think most of them are not earning more than 100 Kwacha per month. Through the MCP people they are forced to pay the bill but that is not the reason why people are paying for the water.

A look at the book of the Meter Reader

9th June 1993.

During the fieldvisit at CWP 56 we had a look in the book of the MR of the CWP's. Not all meters are read in April and March. In May he only read 28 of the 63, in April only 30. Along our way to CWP 56 he also read the meter of CWP 54 which he wrote down for May. He is not doing his work correctly

The Lab Chemist speaks,

9th June 1993.

At the treatmentworks the concentration of the chlorine before distributing to the people needs to be 3.0 mg/l. At the taps before consumption it must be 0.2 mg/l.

The Meter Reader speaks,

22th June 1993.

The MR write all meter figures down in his black book. In the office he writes the figures of the meter direct on the ledgercards. When the committee comes to the office to pay the money they first come to the office to show the "household contribution" form and collect the remittance advance. Then they go with both to the Cashier. After that they return to the office for checking with the MA.

11/4/93 Arrival Ms de Ridder and Mr. van Dorst Lilongwe Airport

12/4/93-18/4/93 Introduction (1 week)

- Week 1
- Introduction and familiarisation with Mr. Kankhulungo, Mr.Kwaule, DWSF accounts office
 - Collection of relevant literature and data
 - Journey to Mzuzu by public transport

19/4/93-25/4/93 Establishment (1 week)

- Week 2
- Establishing offices in Water Department Regional Office
 - Introduction and familiarisation with the Water Department staff and offices, appointment Water Department staff to team.
 - Field visits together with Water Department staff

26/4/93-9/5/93 Analyzation Mzuzu scheme data (2 weeks)

- Week 3 & 4
- Analyze scheme data at office
 - Report and presentation to Water Department staff in Mzuzu
 - Develop indicators for performance
 - Field visits
 - Selection of standposts for micro research

10/5/93-23/5/93 Questionnaire (2 weeks)

- Week 5 & 6
- Develop standpost questionnaire for interview and observation
 - Pilot testing of questionnaire
 - Design final questionnaire
 - Translation of the questionnaire when necessary
 - Check of questionnaire by Water Department staff

24/5/93-20/6/93 Data collection, Fieldwork (4 weeks)

- Week 7-10
- Introductory workshop for Water Department and customers
 - Interviews with tap-committee members, water meter readers, consumers
 - Observation, water demand, standpost management, case histories

21/6/93-18/7/93 Analysis and reporting (4 weeks)

- Week 11-14
- Analysis and comparising, quality control of field data, inter-views and observation
 - Presentation draft findings to Staff Water Department and representatives of tap committees
 - Reporting
 - Leaving a Draft report at the Water Department Mzuzu
 - Departure to Lilongwe

19/7/93-25/7/93 Lilongwe (1 week)

- Week 17
- Arrival
 - Presentation Draft report
 - Debriefing
 - Reporting

8/8/93

Departure to the Netherlands

Adjustments

During the establishment week (week 2) in Mzuzu there was no fieldvisit together with Water Department staff, although they received the Terms of Reference including the Workplan. This week we had a lot of interviews with WD staff to get a clear view on the situation and solve a lot of obscurities. We were disappointed of the available literature in Mzuzu as well as in Lilongwe concerning our research. In week 3 we started with the fieldvisits together with the MA. Meanwhile we started with dataprocessing of the collected information. On 11th of May (week 5) we finished all the visits to the 63 CWPs (one of them was not operating). In week 5 we developed indicators for performance after analyzing the collected data (delay of one week). There was no presentation to the WD staff of our so far collected information. The WD staff had a lot of seminars that time and for us there was no motivation to do so because they did not show any interest. In week 6 we developed the questionnaire. This questionnaire we made was ment for every community member of the CWP and not only for interview of Committee members and observation as mentioned in the workplan. The questionnaire is translated in Chichewa and checked by the rural developer of Water Department. In week 7 we had two meetings for holding inquiries. In that week our programme delayed because the life president Dr Kamuzu Banda came to visit Mzuzu. Week 9 we finished the other five inquiries and visited the threatment plant. From week 10 we started with the analysis and comparing of the fielddata.

Every time when we had a list of questions we held interviews with the involved person. There is no workshop held with the WD and customers. What we did, we informed the MA and the MR's how we liked the inquiries to be held.

Time was not permitting to select a smaller scheme with a different performance record in the vicinity of Mzuzu (eg. Nkata Bay or Rumphu) as a second research area. Already in the early stage we decided to do the research only in Mzuzu because all information had to be collected by verbal communication.

On the 2nd of August, we planned a kind of workshop at Tikwere, headquarters in Lilongwe for a debriefing and discussion of the report.

The final report after recommendations of the supervisors in Holland, among them Mr v.d. Wall Bake, will be send to Tikwere, headquarters (Chief Water Supply Officer and Project Manager) and to Water Department Mzuzu (Chief Water Supervisor).

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