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REPUBLIC OF ZAMBIA

PUBLIC STANDPOST WATER SUPPLIES (PSWS)

PROJECT

1983 - 1987

AN OVERVIEW

- Department of Water Affairs,
Ministry of Agriculture and
Water Development
- Ministry of Health
- Department of Social Development,
Ministry of Labour and Social Services

Lusaka, 1989



PROJECT SUPPORTED BY INTERNATIONAL REFERENCE CENTRE FOR
COMMUNITY WATER SUPPLY AND SANITATION (IRC)

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The text was generated by the Project Team, with welcomed review inputs by Mary Boesveld of IRC.

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CENTRE FOR COMMUNITY WATER SUPPLY
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PO BOX 3319, ZIMBABWE
TEL (GPO) 31 1911 ext 141/142
RN: 7513
LO: 824 ZM 89



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1. GENERAL INFORMATION ABOUT THE PROJECT

1.1 Background

As part of the efforts undertaken by the Zambian Government to implement the goals of the International Drinking Water Supply and Sanitation Decade, an agreement was signed in 1983 between the Zambian Government and IRC to undertake a demonstration project on Public Standpost Water Supplies (PSWS). The project started in 1984.

1.2 Aims and objectives

The major aim of the PSWS project was to stimulate the development of improved approaches to public standpost water supplies through:

- development of appropriate strategies, methods and techniques for the planning, implementation and management of community standpost water supply systems;
- promotion of active participation of the communities in all stages of planning, implementation and management;
- sharing of experience and knowledge gained in the project on a national level and internationally.

The immediate objectives were:

1. to set up and develop a number of demonstration schemes on the application of public standposts in community water supply;
2. to conduct a series of studies and to prepare guidelines on particular organizational, economic, technological and socio-cultural aspects of public standpost water supply systems;
3. to contribute to the international exchange of information on various aspects of public standpost water supply systems;
4. to promote the application on a larger scale in Zambia of the strategies, methods and techniques developed in the project.

Because the importance of including health and hygiene education and sanitation in the project was recognized, the following further objectives were developed during the early days of the project:

- promotion of appropriate methods of excreta disposal through provision of simple methods of latrine construction, using locally available materials;
- development of health and hygiene education in connection with the other project activities as an integrated approach.

1.3 Organization

The Department of Water Affairs (Ministry of Agriculture and Water Development) has been responsible for the co-ordination of project activities. To ensure special support for the sanitation, hygiene education and community participation aspects, members of the Department of Community Health (Ministry of Health) and the Department of Social Development (Ministry of Labour and Social Services) have participated on the executive level in the Project Team. Through the

close co-operation of team members in project activities and liaison at extension worker level, an integration of inputs from these different government departments has been developed in the project.

The team consisted of:

Project Manager: Mr. M.K. Chimuka, District Health Inspector
(Ministry of Health)
Project Engineer: Mr. D.M. Kabumu, Water Engineer
(Dept. of Water Affairs)
Project Officer: Mr. K.L. Kamalata, Principal Social Development
Officer (Dept. of Social
Development)

All three team members have performed their tasks in the project on a part-time basis.

For the supervision of the project a Project Management Committee was formed. The members of this Committee were drawn from the above mentioned three Departments, the National Action Committee for the International Drinking Water Supply and Sanitation Decade, World Bank, and several academic institutions. The Committee has assembled every three months. It has been chaired by the Director of the Department of Water Affairs. Members also have occasionally visited all demonstration scheme sites to inform themselves about progress made (see List of Project Management Committee Members in Appendix I).

1.4 Project approach

In general the project approach consisted of three main steps. In the first place the problems and successes encountered with public standpost water supplies were to be investigated. Special attention was to be given to community participation, financial management, organization of operation and maintenance, and hygiene education. Secondly, in selected small communities in rural and urban fringe areas demonstration schemes would be set up, where in discussion with the local people a community-based integrated approach would be demonstrated and monitored.

Finally, the experience gained in the project would be shared with other experts and agencies concerned with water supply, sanitation and hygiene education. Transfer of knowledge and experience and promotion of a wider application of project findings would take place not only within each country but also internationally.

1.5 Summary of main experiences

To plan this approach and to meet the project objectives, a workplan and time schedule were made at the start of activities in 1984. These plans had to be adjusted several times. Some stagnation was caused by administrative problems. Probably also due to these problems very few preliminary and other special studies were executed; only one small study into health problems and water related diseases has been completed.

Also in the beginning difficulties arose because there was not sufficient technical support within the Project Team. This problem was solved by the nomination of a Water Engineer as Project Engineer in November 1985.

At the demonstration scheme level, delays in the implementation of some of the schemes have been caused by insufficient funds available in the communities and limited resources from the local authorities.

The Project Team has worked closely with the District Councils and communities in the demonstration scheme areas. District Councils have given support in advising the Project Team on local conditions and in providing employees to work with the villagers in construction of the water schemes and in some maintenance activities. Also, District social development workers and health workers have been active in promoting hygiene education and supporting the village water committees in the demonstration scheme areas.

There has been community involvement and participation in the demonstration schemes at all stages of the project. Through such participation the following achievements have been realized:

- water committees have been set up where they did not exist before; recognizing the importance of women's participation in water supply projects, more than half of the members of these committees are women;
- the communities have taken responsibility towards their own water schemes;
- funds have been collected by the communities for operation and maintenance of water schemes;
- people in the project areas are more and more accepting the need for proper sanitation and hygiene;
- the use of locally available materials for the building of low-cost VIP-latrines is becoming more and more accepted in the project areas.

The objectives of transfer and application of knowledge and experience generated through the project have been met in various ways. In the first place three Ministries and various other national agencies and institutions have been brought together to co-ordinate work on water supply, sanitation, health and community development. This new approach has proven successful, as it ensures that insights from different sides contribute to the solution of problems.

Secondly, the Project Team has gained knowledge from their experience in working in the project, particularly concerning the involvement of the communities. A description of the approach which has been developed in the course of the project, is to be found in section 3.

In order to promote wider application of insights gained in the project, various methods have been used, such as the drawing up of some supporting materials and the planning of a National Workshop, to be held soon as possible after consolidation and completion of the present demonstration schemes.



PSWS Project demonstration area:

- 1: Chibombo
- 2: Mwachisompola/Mulimba
- 3: Mwachisompola Health Centre
- 4: Chongwe

REPUBLIC OF ZAMBIA

Scale 1:1,500,000



2 PROJECT AREAS: REVIEW OF SUCCESSES AND CONSTRAINTS

2.1 Area selection

After appropriate local consultation and reconnaissance, the three areas in the PSWS project were selected by the Project Manager, with the assistance of the other team members, and agreed by the Project Management Committee. Important criteria were:

- availability of adequate water sources in the vicinity (e.g. boreholes);
- populated areas where there was a felt need for clean water near to the homes;
- willingness of the community to be responsible for and contribute to the scheme in cash, kind or labour;
- nearness to Lusaka, for close monitoring and support by the project team.

Needs of the community were assessed through discussions with local extension workers, local leaders and representative community members. Potential for community participation was assessed through previous participation in various self-help schemes.

2.2 Selected areas

Mwachisompola area

a) Mulimba (Boling), near Mwachisompola hospital

* water scheme

This village consists of 21 households with in total approx. 150 inhabitants. Previous to the project people got their water from the nearby hospital staff house connections. This resulted in many problems, as not all owners were willing to allow the people from the village to collect water.

With the help of the Project Manager the community organized itself to collect funds for installing a standpost in their village through connection to the hospital system. Members of the community formed a water committee, which managed funds and materials. As the community could not bring together enough funds to pay for all necessary material, the Project Team and the community arranged assistance from outside: a local missionary institution and two local farms donated some pipes.

In 1985 a standpost with 2 taps was put up in the village, on a site which the villagers considered to be central. Because the valve connecting the village extension to the hospital supply is at the corner of a busy road, the water committee has taken action to protect the valve with a masonry chamber. Construction was essentially on self-help basis, with the help of plumbers from the hospital.

Women have been involved in all stages of planning and construction. The managing water committee has 4 women members. Two caretakers have been trained by the plumbers of the hospital to manage and operate the system. The community still



1. Mulimba: PSWS standpost with bucket stand and drainage into a banana grove.



2. Mulimba: members of the water committee who organise operation and maintenance of the standpost.

collects funds regularly to be able to pay for necessary materials and spare parts. These funds are managed by the treasurer of the water committee. The villagers so far have not paid for their water use; the hospital provides the water free. The standpost and village system are still in very good condition. The community has expressed a wish to use the collected funds to build another extension with a standpost into the village. Unfortunately the main plant at the hospital (a borehole with pumps, engine and storage tank) is at present very weak. If major repairs cannot be executed in the near future, the water supply of the hospital might be in danger and the standpost at the village of Mulimba might have to be closed. There will certainly be no possibilities for a further extension.

* sanitation

Through the project 4 demonstration latrines (VIP-type) were put up by the community (August-November 1985). Materials were donated by the Willy Kit Company and the Ministry of Health. These latrines cost about K.500-. (approx. US \$ 64,-) each. For the construction of two more latrines appropriate technology methods were used, with locally available materials (straw, reed, mud). As these materials cost nothing, only labour input was needed for construction.

Up to now the community has not put up any more new latrines. However, some families have improved their toilets in simple ways, e.g. by attaching a mat-and-mud ventpipe.

* health and hygiene education

Under the supervision of the Project Manager, health workers from the hospital have held regular discussions with the villagers about health and hygiene matters. However, their efforts need to be more structured. Plans have been made to develop a monitoring system with proper guidelines for work and discussions in the villages.

b) Mwachisompola Rural Health Centre

* water scheme

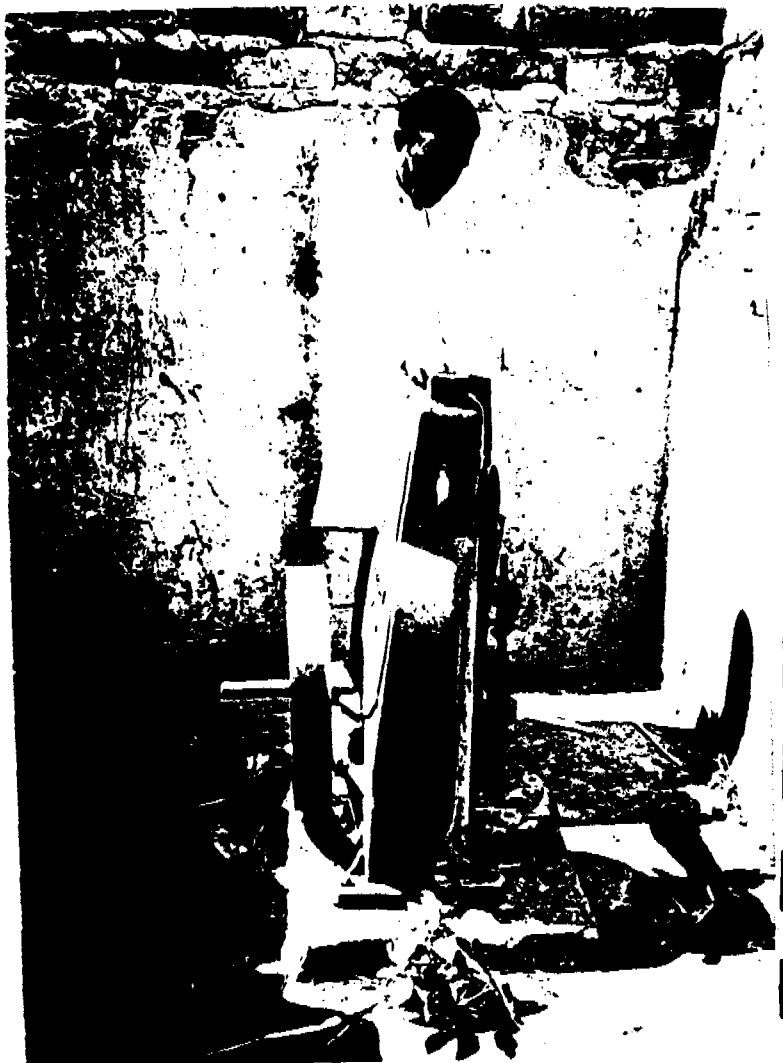
Around this Centre there are three villages, with in total 30 households and approximately 240 inhabitants.

At the Health Centre there was previously a diesel driven water pump with a storage tank to supply the Centre as well as the villages. Unfortunately, the engine broke down several years ago, and was taken away by the District Council for repair. The pumphouse became partly derelict. Since then the Centre and the villages use unclean water from shallow wells and a borehole.

The Project Team decided to rehabilitate the scheme, as the communities were eager to contribute to it. The communities set up a water committee and collected funds for the renewal of the pumphouse and piped extensions into the villages. Also they rebuilt much of the pumphouse structure. Meanwhile the Project



3. Mwachisompola Health Centre: the pumphouse has been partly rehabilitated by the villagers through the PSWS project. A new storage tank is to be provided by the District Council.



4. Mwachisompola Health Centre: the old broken pump at the pumphouse. The PSWS projects has negotiated with the District Council to get a new pump engine.

Team approached the District Council to get back a suitable pump, but due to limited resources it could not be provided. The Project Team now plans to find external funds to cover the cost of the necessary pumping equipment, but only after checking the potential for the long term sustainability of such a development.

So far the villagers have collected sufficient money to pay for some spare parts and for the first supply of diesel oil to run the pump engine. With the assistance of the Project Team they will set up a system of regular payments by all users to cover the cost of diesel oil in the future. A point under consideration is the rehabilitation of the existing cattle trough, with possible extra rate payments by those using the water supply also for their cattle.

A local plumber will be trained by a technician from the District Council to act as caretaker for the scheme.

* sanitation

For this area two demonstration latrines have been donated by Willy Kit Company, which have been put up at the Rural Health Centre, with the help of the communities. Two other VIP latrines have been put up in the villages, using locally available materials and designed by the Project Manager. The villagers have shown much interest in these low-cost latrines and have asked for guidance in construction. A simple pamphlet showing the design and details of construction is in preparation.

* health and hygiene education

This is nominally carried out by health workers from the Centre. However, the system is not working very well. The Project Team will take measures to improve it by setting up a monitoring system, as previously indicated.

Chibombo area

a) Chiyuni

* water scheme

The village consists of 52 households, with approximately 420 inhabitants. Previous to the project people drew unclean water from shallow wells. Contamination risks were recognized and attempts made to reduce them, indicating appreciation of good water (separate wells for cattle, protection of wells for drinking with local fencing, cleaning of wells twice a year, single bucket for water drawing). Women play an important role in this traditional management.

With the help of the Project Team a water committee was set up to collect funds for a standpost in the "messengers compound" through connection with the water supply system of the nearby Chibombo Primary School. The standpost with two taps was completed in 1985. A further extension with a standpost at a more central place in the village, in front of the headman's



6. Chibombo: this well was used before the PSWS standposts were built.



7. Chibombo: a well-designed PSWS standpost with a built in tap and a bucket-stand for convenient filling and lifting.

house, was built in 1986. Construction was mostly on a self-help basis, with help from local plumbers. Women were involved in all stages of planning and construction.

Money for maintenance (spare parts) is collected and put aside by the community. These payments are not fixed and not regular. For this purpose all households are listed and visited for a contribution whenever needed. All user households pay an additional fixed flat rate of 2 K (approx. US \$ 0.26) for water from the standpost to the District Council. Those who are known to be unable to pay, pay less or are exempted from payment. The treasurer of the village water committee (the village headman) holds the receipt book and manages the funds. Layer amounts of money are kept in an account in the post office. Caretakers for both standposts were instructed by a local plumber.

The standposts are still in good condition. As the main scheme is not very strong, there is sometimes not enough pressure, but on the whole the water supply is still considered to be sufficient.

* sanitation

Most villagers have pit latrines. These could be converted into VIP latrines with the use of local materials at very little cost. As the soil is not stable in this region, the use of ferro-cement platforms for the latrines is recommended. The Project Team, with the help of the villagers, has put up a demonstration latrine showing these features.

b) Kaongo

* water scheme

This is a cluster of villages around Chibombo Primary School, consisting of 30 households, with approximately 300 inhabitants. Previous to the project the villagers, and also the school, used unclean water drawn from wells.

The community decided to get an extension from Chibombo Clinic for the installment of standposts at the school. With the assistance of the Project Team and schoolteachers, a Water Committee was set up and funds collected to pay for necessary materials. Two school teachers are chairman and treasurer of the committee. A standpost with two taps was set up in 1985 at the school, at a site considered to be central. Construction work was done by villagers and schoolteachers with the help of local plumbers.

In the next year two more standposts with two taps each were erected in and near the school compound. One of them is especially designed for the school children (low, easy to reach). These extensions have been built entirely under the responsibility of the Water Committee, with very little support from the Project Team. Waste water drains into a soakage pit at the school gardens, and in another garden near the teachers' houses. Two caretakers have been trained by local plumbers to operate and maintain the scheme. The community periodically collects funds for spare parts. Each household pays 2 K (approximately US \$ 0.26) per month to the District Council for water charges.

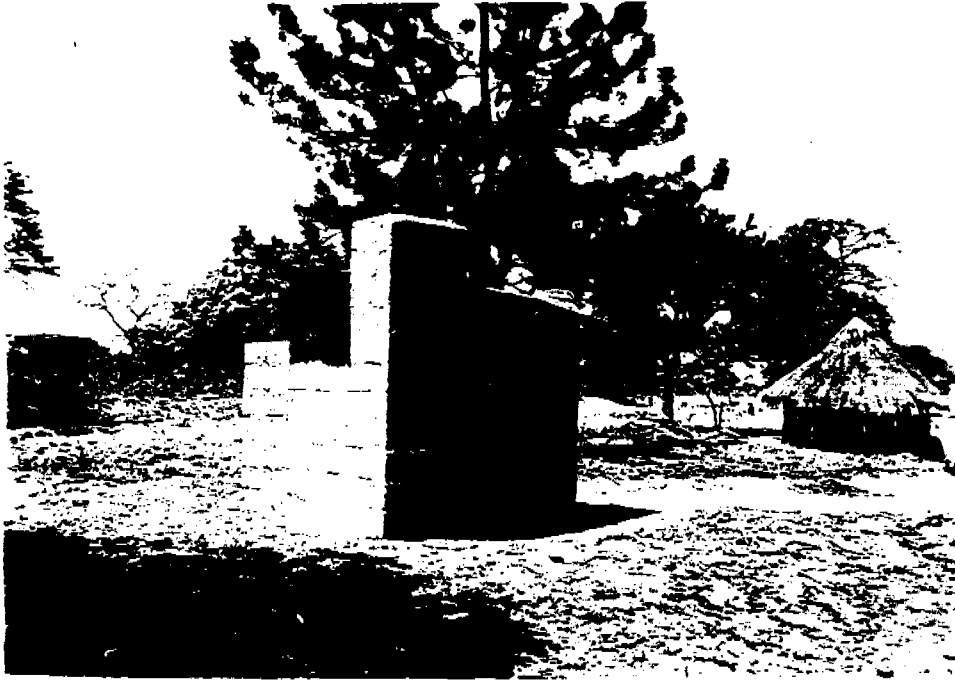
Unfortunately the parent water supply scheme does not function very well. Pressure is insufficient, at regular intervals the taps are dry. Because of this one standpost had to be closed. Problems originate at the main supply to the Clinic, which was poorly constructed. The District Council plans to repair and reconstruct the main scheme and the Project Team will continue to pursue this.



8. At Kaongo school, children gather around a PSWS standpost especially built for them with a low-level tap.

* sanitation

With the help of the local community four demonstration latrines of different designs have been put up near the school and in the villages (July - December 1985). Some materials were donated by the local Parent-Teacher Association; for some construction local materials were used. Particularly those latrines constructed of local materials are being adopted by the villagers, as they are of good design and cost very little.



9. A VIP latrine built at Kaongo school by the Parent-Teacher Association, with support from the PSWS project.

c) Mwamuyamba

* water scheme

This village with approximately 100 inhabitants is situated near the new Chibombo District Council's headquarters, which has a good water system.

Supported by the Project Team, in 1986 the community set up a water committee, collected funds, and constructed an extension with a standpost from the District Council's main scheme. The standpost with two taps is still in good order and the villagers are very satisfied with their water supply. A caretaker has been instructed by a technician from the District Council. Each household pays 2 K (approx. US \$ 0.26) a month to the District Council for water use, and additional contributions towards a fund for spare parts.

* health and hygiene education in the Chibombo area

Since 1985 a health worker has been stationed at the District Council in Chibombo. She has been instructed by the Project Team in providing health and hygiene education in the whole area, particularly connected with water use and sanitation. She is involved in activities at Kaongo school, helping the teachers to take up the issues in classes.

Chongwe area: Sokosi

* water scheme

This cluster of villages consists of 400 households with approximately 1000 inhabitants. Previously the villagers got their water from shallow wells and, with great difficulty, from Chongwe Secondary School at a distance of about 2 km. The source for the main scheme at the school is a dam in a nearby river. The plant consists of pumping equipment and a storage tank.

With assistance from the Project Team the community set up a water committee and raised funds for materials towards the construction of a standpost. Unfortunately the money collected was not enough to provide for the length of piping needed. The Project Management Committee decided to meet the costs by providing the balance from project funds. In 1987 a standpost with one tap was erected. All construction work was done by the villagers, with some help from a technician from the District Council. A local plumber was nominated as caretaker.

The community pays regularly into a fund for spare parts, which is held by the treasurer of the water committee. Additionally each household pays 2 K (approx. US \$ 0.26) per month for water use to the District Council.

Unfortunately the pumping equipment at the school is not very strong. Sometimes breakdowns occur, and then the community has to go back to the old water sources.



10. Chongwe: PSWS standpost. The drainage has to be improved.

* sanitation

So far 6 pit latrines have been put up with local materials, after discussions between the Project Team and the villagers. Previously there were no latrines at all.

A VIP latrine kit donated by Willy Kit Company has been put up for demonstration purposes.

* health and hygiene education

The villagers have mostly been instructed by the Project Manager, who discussed health issues and water related diseases with the community. In the future, health workers will be monitored through a system set up by the Project Team, as already has been pointed out for the other areas.

3. METHODOLOGY FOR COMMUNITY PARTICIPATION DEVELOPED IN THE PSWS PROJECT, INCLUDING HEALTH AND HYGIENE EDUCATION AND SANITATION.

3.1 Collaboration among Project Team members and other officials in the demonstration areas.

Right from the start of the project community participation was treated as a crucial factor in the development of the project's methodology. Inclusion of a representative of the Department of Social Development in the Project Team ensured that the Departments' ideas were fully taken up: the promotion of self-help and self-reliance in rural communities, involving them in their own development projects in such a way that they can realise their own responsibilities.

It was felt essential to include health and hygiene education and sanitation at an early stage of the project. The Project Manager, a representative from the Ministry of Health, took up these issues. He set up hygiene education in connection with water use in all four demonstration areas. Also, he developed models for low-cost latrines and promoted their construction.

The technical aspects of project activities, e.g. technical assessment of water schemes, exploration of various options for construction, supervision of construction work etc. were taken up by the Project Engineer.

This division of tasks did not prevent the Project Team from working closely together in the promotion of the project in the communities. Together they held discussions with the villagers on various aspects of community participation and together they supervised the implementation of the water schemes. The team was supported in its work by the District Councils and other officials in the project areas. Notably some social development workers, health workers and council technicians took part in project activities. However, their involvement has been informal. In an early stage of the project, in September 1984, a workshop for social development and health workers was held to introduce the aims of the project. Other participants were village leaders and extension workers. Unfortunately further workshops of this type were not repeated.

Necessary supporting activities from existing health and social development workers have not yet been systematically structured within the framework of the project methodology. The Project Team plans to take this up and develop a system for training and monitoring social development and health workers in providing information and support for communities in connection with water supply, hygiene education and sanitation. Some tentative ideas for such a system have been outlined in the First Review of the project, May 1986, pp. 17/18.

3.2 A methodology for promoting community self-help and self-reliance

For the promotion of community participation in the project, the Project Team identified the following steps:

Step 1:

Preliminary activities: ensuring support of authorities; assessment of a felt need by the communities for adequate water supply; technical assessment of the main water schemes in the area.

To ensure support from local authorities the Project Team approached the District Councils, local Party representatives and other officials (e.g. Mwachisompola Hospital staff) to explain the ideas and objectives of the project, to obtain permission to build extensions from main water schemes and to get assistance with construction. After some initial caution all authorities have supported the project activities in their areas.

Party members and Council Representatives advised the Project Team on local conditions and helped to assess the needs of the communities. To get a clear impression of these needs, a house to house survey on health and water related problems was held in some communities. The questionnaire for this survey was developed by the Project Manager; he also analysed the results.

In this stage of the project there was not yet sufficient technical support available. The Project Engineer joined the team only in November 1985, when activities were already under way. Nevertheless some preliminary technical assessments of main water schemes in the demonstration areas have been made, to investigate adequacy of supplies.

Step 2

Assessment of communities potential for involvement and participation, particularly participation of women

With each community at least two formal and some informal meetings were held, where the Project Team explained the ideas and objectives of the project. Points discussed included also:

- responsibilities and rights of communities in self-help projects;
- benefits for communities from self-help projects;
- willingness of all community members to contribute towards construction with labour and money, and, on a long term basis, towards maintenance;
- the importance of specifically involving women in community decisions about these matters.

In Zambia self-help activities for community development are not uncommon. Rural communities in particular often contribute towards school buildings, health centres etc., establishing their own organisation for fund raising and management. Women generally participate in decision making, fund raising and physical work for self-help projects. Responsibility for water supply, e.g. digging and maintenance of wells, is traditionally in many places in Zambia a community activity in which women play an important role. Thus, the Project Team did not meet many obstacles in introducing the project with the communities and obtaining their collaboration, particularly on the participation of women.

Step 3

Formation of local water committees; planning of water schemes and sites for standposts; fund raising

After the villagers had decided to improve their water supply with help from the project, each community set up a Water Committee to handle all organizational matters around construction, maintenance and financial management. Members of the Water Committee are usually drawn from already existing village organizations, e.g. a women's club, a health committee, a parent-teacher association. Water Committees are generally composed of an equal number of men and women; in some cases women outnumber men. A village leader usually acts as chairman. He, or another member collects the contributions from the villagers and manages the funds for construction and maintenance of the standpost. In each community the Water Committees held regular discussions with the villagers to encourage everybody to participate in planning and decisions concerning sites for the standposts, fund raising, labour contributions toward construction etc. Although the communities took the decisions and arranged the work among themselves, the Project Team continuously guided their activities. The team regularly visited the communities and discussed problems and possible solutions with the villagers.

Also, the Project Team initiated discussions and fostered co-operation between the Water Committees and the local authorities, to obtain permission to build extensions from main schemes and to arrange for assistance with construction.

Step 4

Implementation: construction of extensions and standposts

The Water Committees, with funds collected from the communities, purchased most of the necessary material to construct the extensions from the main schemes. They organised the digging of trenches and other construction work, in which generally all community members collaborated. Usually a District Council technician or, as in Mulimba, a hospital plumber, assisted with more complicated aspects of the construction of standposts. All construction work was supervised by the Project Engineer.

In some cases village funds were not sufficient to meet the costs of materials. The Project Team then approached outside agencies, e.g. NGO's for assistance.

Step 5

Arrangements for operation and maintenance

The Water Committees nominated a caretaker for each standpost. The Project Team organized training for the caretakers to instruct them in simple maintenance. This instruction has usually been given by District Council technicians. In some places a local plumber was taken on as caretaker.

The Water Committees, in discussions with the communities, decided on operating hours for the taps, on use of waste water for gardens, etc. They also negotiated with the local authorities on water payment. For all demonstration schemes it was decided to pay to the District

Council a flat rate of K 2 (Approx. US \$ 0.26) per month for each user-household, except in Mulimba, where the hospital does not charge for the use of water.

To collect and administer the payments, each Water Committee elected a treasurer. Some communities decided to pay regularly an extra amount of money for spare parts, in addition to the monthly rates. These funds are kept in an account at the post-office. Small repairs to the village schemes are executed by the caretaker or local plumber. For bigger repairs and maintenance of the main schemes the communities are dependent on the District Councils and in Mulimba on the hospital.

3.3 Sanitation

Together with the planning and implementation of the standpost water supply, the project introduced improved sanitation in the villages. The same approach was followed as described in paragraph 3.2. Firstly, the Project Team assessed, in discussions with the villagers, the needs of the communities and their ideas about proper sanitation habits. Then, various demonstration models of latrines were put up in the villages. Several designs were made, so that villagers could choose the most appropriate model to meet their needs and their financial means. A special model based on appropriate technology using locally available material was developed through the project. Also, the Project Team negotiated with Willy Kit Company for them to donate a pre-cast latrine with a ventpipe and a roof of corrugated iron for each demonstration scheme.



11. Mulimba: an improved pit latrine, built with local materials after a model developed through the PSWS project.



12. Chibombo: a traditional latrine, built with local materials and based on a model developed through the PSWS project.



13. A health worker from Chibombo and a social development worker from Chongwe on an exchange visit to discuss the methodology of the PSWS project.

All these latrines were put up by the communities under the supervision of the Project Manager. For the communities, the pre-cast latrines which cost approximately Kw 500 (US \$ 64) proved to be too expensive. A few villagers built their own latrines with locally available material. Some others improved existing latrines with a mat-and-mud ventpipe after the demonstrated model.

3.4 Health and hygiene education

For all demonstration areas efforts were made to introduce health and hygiene education.

The Project Manager discussed these issues with the communities in connection with the introduction of standpost water supply and sanitation. He also instructed District health workers to work with communities and to make household visits. As indicated before, plans have been made to develop a system for training and regularly monitoring the activities of health workers in support of the project.



14. Hygiene education is promoted in the PSWS project.
This village woman shows the water storage in her house:
drinking water is in the covered container below;
water for cooking purposes in the open pot.

3.5 Training

In the project, different types of training were used to reach various levels of participants and other interested parties. At demonstration scheme level training courses for caretakers took place through the project. Trainers were employees of the District Councils. Also a seminar was held for village headmen and their secretaries on primary health care activities. Topics covered were:

- (a) Waterborne diseases, by the Project Manager;
- (b) Community participation in projects, by the Project Supporting Officer;
- (c) The role of women and children, by a Social Development Officer;
- (d) The importance of using a pit latrine, by a Health Assistant.

In 1985, a workshop for employees from the District Councils specialized in extension, health and social development was held, together with village headmen and their secretaries. Topics covered were:

- (a) Setting up local water committees;
- (b) Community participation;
- (c) Health and hygiene aspects of water supply;
- (d) Collection of funds;
- (e) Sanitation;
- (f) The role of women in water supply.

The above seminar was organized by the project staff and IRC provided a consultant.

In addition, exchange visits between local water committees took place to share knowledge, experience and views.

4. SHARING AND DISSEMINATING THE KNOWLEDGE GAINED IN THE PROJECT

4.1 Sharing the knowledge through the establishment of a network

In connection with project activities the Project Team has had regular contacts with members of national and local Government agencies, e.g. the members of the Project Management Committee, the District Councils, etc. Also, they have been nominated to various organisations and committees, giving them the opportunity to explain the project approach in government agencies and other institutions in Zambia. Hence, the Project Team has established a network to promote the project approach in various government agencies and other institutions in Zambia. For example Mr. K.L. Kamalata, the Project Supporting Officer, is a member of the National Action Committee for the International Drinking Water Supply and Sanitation Decade; Mr. D.M. Kabumu, the Project Engineer, acted as a member of the governing body for "Water to the Village Project" sponsored by Rotary International; all the team members are members of the National Primary Health Care Committee.

4.2 Written materials and media

The Project Team has prepared several papers describing the methodology and results of the project. Periodic reports stating project progress and proceedings were circulated to PMC members and IRC. Pamphlets on design and construction of VIP latrines and on relationship between health, sanitation and water supply for local water committees and the communities have been prepared and are to be translated into local languages. For a list of written output see Appendix II.

Aspects of project activities were broadcast on Radio Zambia in July 1986 and in March 1987 the inauguration ceremonies for some of the demonstration schemes were shown on Television Zambia. During these inauguration ceremonies the guests of honour were the Ward Chairman for Chongwe and the District Governor for Kabwe (Chibombo) respectively.

4.3 National and International Workshops

The Zambian Project Team attended international workshops sponsored by IRC in connection with PSWS project as follows:

- Thailand - November 1984
- Working visit to Sri Lanka - November 1984
- Workshop held in Sri Lanka in December 1985 attended by the Project Engineer
- Malawi workshop - November 1986
- International Drinking Water Supply and Sanitation Decade Conference, Lusaka - November 1986 attended by the Project Engineer.

All these workshops gave the project staff an opportunity to exchange views and experiences with their counterparts and other personnel.

5. EVALUATION

5.1 Intercountry Interim Evaluation

This evaluation took place in Zambia in August 1985 within the framework of a general evaluation of the participating PSWS project countries: Indonesia, Sri Lanka, Malawi and Zambia. The team members were:

- Dr. Yun - Team Leader from Korean Republic
- Mr. F. Kwaule - Project Officer from PSWS Malawi
- Mr. van der Vliet - A Dutch Water Engineer working in Solwezi - North Western Province, Zambia
- The Zambian Project Team

Results and recommendations are laid down in an Evaluation Report, published in September 1985.

5.2 Self-Evaluation Workshop

The workshop was held from 4 - 8 May 1988, with the objective to review the PSWS project as a whole, including different stages and aspects. Findings lead to recommendations for further planning the new PSSC project (Piped Supply for Small Communities), which is a follow up activity from the PSWS project.

Participants were:

- Mr. C.R.W. Kayombo - Director of Water Affairs and Chairman of the PMC
- Mr. L.L. Mbumwae, Deputy Director of the Department of Water Affairs, Member of the PMC
- Mr. M. Chimuka - Project Manager
- Mrs. G. Muzyamba, Project Officer, Department of Social Development
- Mr. D. N'gambi - Project Engineer, Department of Water Affairs
- Mrs. Sakala - Community Development Worker in Chongwe.

Recommendations of this workshop included:

- priority should be given to completing and improving the PSWS demonstration schemes before starting new demonstration activities;
- all planned written training materials and guidelines developed in the PSWS project should be completed;
- a monitoring system for extension workers (health workers and community development workers) who would support project activities should be set up.

6. FOLLOW-UP ACTIVITIES

6.1 Utilisation of Project Approach in other Projects

The Project Team has been requested to assist the Chibombo District Council in the planning and implementation of hand-over activities of village piped water supplies to the villagers in three areas in the District. This has been a first major step in the utilisation of PSWS project approach in other projects. The aims are to allow the villagers to rehabilitate, operate and maintain their water and sanitation systems. Also the people will be responsible for managing their own finances.

In order to achieve good results, the villagers in the planned District Council project area will be given an opportunity to visit the PSWS projects to see for themselves what they can achieve through their own involvement in water, sanitation, health and community activities. It is hoped that the approach and results from these projects will be distributed to other District Councils perhaps through the Ministry of Decentralization, for still wider application.

The successful use of an interministerial Project Management Committee has also stimulated the further development of the WASHE Committees in Zambia. These are inter-sectorial committees monitoring water supplies, sanitation and hygiene education activities which are being set up at Provincial and District level throughout Zambia.

6.2 Follow-up Activities Directly Related to Project Activities

- There is a need for the Project Team to assist in the installation of extra standposts within PSWS project areas. This is due to the fact that the population has increased rapidly in the area where standposts were initially installed. However, this exercise will depend on the extent to which the Councils can improve their water works supply and distribution network.
- Sanitation aspects of the project, particularly the appropriate low-cost latrine models developed in the project, are to be spread to other areas outside PSWS project areas.
- Plans are developed to continue strengthening health education in both the PSWS project areas and the planned Chibombo District Council project areas.

6.3 PSSC Project (Piped Supplies for Small Communities)

During 1987 Zambia developed a proposal for participation in this 3-year inter-country follow-up project. Financial and backstopping support has been sought from IRC and the new project got underway in both Zambia and Malawi in early 1988.

The PSSC project is an important follow-up project to the PSWS project in order to achieve wider application of the approach and results learned from the demonstration schemes, further develop and improve the approach itself, and introduce a more flexible approach to selecting and developing levels of service within piped supplies.

APPENDICES

APPENDIX I

LIST OF PROJECT STAFF

Mr. M.K. Chimuka	Project Manager PSWS Ministry of Health
Mr. K.L. Kamalata	Project Officer PSWS Department of Social Development
Mr. D.M. Kabumu	PSWS Project Engineer Department of Water Affairs
Mr. J. Malawa	Project Technician (part 1986)

Addresses

Ministry of Agriculture and Water Development
Department of Water Affairs
Mulungushi House
Independence Ave./Nationalist Road
P.O. Box 50288
Ridgeway
Lusaka
ZAMBIA

Ministry of Health
Woodgate House, Cairo Road
P.O. Box 30205
Lusaka
ZAMBIA

Ministry of Labour & Social Services
Department of Social Development
Lechwe House, Freedom Way
P.O. Box 31958
Lusaka
ZAMBIA

APPENDIX II

LIST OF PROJECT MANAGEMENT COMMITTEE MEMBERS

Mr. C.R.W. Kayombo	Chairman (up to August 1987) Director of Water Affairs
Mr. L.L. Mbunwae	Chairman (from August 1987) Acting Director of Water Affairs
Mr. E.P. Katati	Commissioner Department of Social Development
Dr. I.L. Nyumbu	IDWSSD Adviser Department of Water Affairs
Dr. R. Baboo	Head Department of Community Health (School of Medicine, UNZA) (from April 1986)
Mr. M.K. Chimuka	Project Manager PSWS Ministry of Health
Dr. K. Jayaraman	Head (up to June 1988) Department of Civil Engineering, UNZA
Mr. D.M. Kabumu	PSWS Project Engineer Department of Water Affairs
Mr. K.L. Kamalata	Project Officer PSWS Department of Social Development
Mr. F.K. Mambwe	Chief Health Inspector Ministry of Health
Mr. P.C. Mpande	Principal (up to September 1986) Chainama College of Health Sciences
Mr. C. Mulanga	Technologist TDAU, School of Civil Engineering UNZA
Mr. H.M. Mwanakatambo	Deputy Chief Health Inspector Ministry of Health
Mr. M.D. Patel	World Bank Project Co-ordinator Department of Water Affairs
Mr. T. Rops	Technologist (up to September 1986) TDAU, School of Civil Engineering UNZA
Mr. F.B.M. Shibalatani	Assistant Project Director (up to September 1986) Mwachisompola Health Demonstration Zone

APPENDIX II Cont'd

Mr. T. Tombo	Tutor (from September 1986) Chainama College of Health Sciences
Dr. T. Watts	Head Department of Community Health (School of Medicine, UNZA) (up to April 1986)
Dr. Weerakun	Head (up to April 1988) TDAU (Technicology Development and Advisory Unit) School of Engineering UNZA
Mr. R.C. Zimba	Provincial Medical Officer PMO's Office, Lusaka Province (from December 1986)

APPENDIX III

LIST OF PSWS ZAMBIA PROJECT OUTPUT

- M.K. Chimuka, Paper on PSWS Project in Zambia for the 1st International PSWS Project Meeting Bangkok, Thailand, November 1984
- K.L. Kamalata, Paper on PSWS Project, Presented at the 1st International PSWS Project Meeting, Bangkok, Thailand, November 1984
- M.K. Chimuka, Public Standpost Water Supplies Project, Progress Report, 1984
- M.K. Chimuka, Public Standpost Water Supplies Project, Progress Report, March - July 1985
- J. Malama, PSWS/Zambia: Feasibility Study for Demonstration Schemes, Lusaka, June 1985
- D.M. Kabumu, Public Standpost Water Supply in Zambia, A report prepared for presentation to the IRC workshop, Sri Lanka, December 2-8, 1985
- K.L. Kamalata, Community Participation, Lusaka, May 1986
- M.K. Chimuka, D.M. Kabumu, K.L. Kamalata, PSWS/PSSC Projects in Zambia: General Information, Methodology and Plans: A First Review, Lusaka, May 1986
- M.K. Chimuka, Paper on Public Standpost Water Supplies Project (PSWS) in Zambia. Contributed to the Seminar on Information for Rural Water Supply and Sanitation, Mangochi, Malawi, November 1986
- K.L. Kamalata, Paper on Community Participation. Contributed to the Seminar on Information for Rural Water Supply and Sanitation, Mangochi, Malawi, November, 1986
- M.K. Chimuka, Report on the Water Supply and Sanitation Workshop, held in Mangochi - Malawi from 7th to 11th November 1986, and study of PSWS project sites, Lusaka, 1986
- K.L. Kamalata, Report on the Water and Sanitation Workshop and Study Tour to Water Projects in Malawi, November 1986, Lusaka, 1986
- Final Report, Public Standpost Water Supplies (PSWS) Project, Lusaka, 1987
- The Public Standpost Water Supplies (PSWS) project in Zambia. An Overview, Lusaka, 1989.