
ANNEX

ANNEX 1 OFFICE FURNITURE AND EQUIPMENT FOR COMMUNITY CENTER

In the field survey of the basic design study, the Ministry of Local Government and Housing (MLGH) submitted the request in addition to the original request issued in August, 2001. The additional request supplements equipment and furniture of community centers. Based on the following requirements, necessity of the requested equipment and furniture is studied by the Japanese side.

- Indispensable for operation and maintenance of the community centers
- Indispensable for operation and maintenance of water supply services and health and hygiene education in and after the project, and
- Properly used in other similar projects, such as the water supply project in George implemented by Japan Grant Aid Scheme.

Among the requested furniture, Japanese and Zambian sides have agreed to provide office desks, chairs, and computer equipment, etc. by the Japan's Grant Aid scheme, though telephone, facsimile, copy machine, and kitchen equipment are excluded from the scheme. Those excluded furniture and equipment are considered items which the Zambian side will provide.

Selection of Equipment and Furniture for Community Center

| Space | Equipment and Furniture |
|-------------------------|--|
| 1. LCC Office | 1) Office Desk and Chair |
| | 2) Book Shelf |
| 2. RDC Office | 1) Office Desk and Chair |
| | 2) Book Shelf |
| | 3) Telephone and Facsimile |
| | 4) Copy Machine |
| 3. Levy Collection Room | 1) Personal Computer with CRT |
| | 2) Printer for A4 size |
| | 3) Computer Rack |
| | 4) Uninterruptible Power System (UPS) |
| | 5) Office Desk and Chair |
| | 6) Book Shelf |
| | 7) Safety Box |
| 4. Meeting Room | 1) Platform Desk and Long Chairs |
| | 2) Book Shelf |
| | 3) Blackboard |
| 5. Kitchen | 1) Kitchen Sink |
| | 2) Electric Cooking Stove |
| | 3) Electric Hot-water Heater |
| | 4) Water Dispenser |
| | 5) Cupboard |

Note) Equipment and furniture with mesh () will be provided by Japan Grant Aid Scheme.

ANNEX 2 LEVEL OF WAER SUPPLY

1 General

The request submitted by the Zambian Government specifies that water supply system will be designed to meet with the requirements of Level 2 which consists of deep wells, submerged pumps, elevated tanks, and public taps. In Kalikikili where water taps are installed at seven residences, the request also specifies to partly introduce the water supply system of Level 3 (individual connections).

Water taps in Kalikiliki are located at yards of residences. Those are functioned as public taps. Therefore the water supply level in Kalikiliki is recognized to be Level 2. Consequently, it is confirmed that the water supply level is desired to be Level 2 in three target areas.

The study also examined possibility for introduction of Level 1, which consists of shallow wells and hand pumps, and integrated systems of Level 1 and Level 2. In result, those proposals do not reflect current situation of water supply systems in Lusaka city. Introduction of Level 1 is not applicable for this Project. The reasons in details are mentioned in the following.

2 Definition of shallow wells and hand pumps

Shallow wells and hand pumps are usually defined as below.

- Depth of shallow wells is normally designed to be less than 30 m. It often reaches around 50m.
- Hand pumps are used for water supply systems in rural areas. Although there are various types of hand pumps, lifting rate of pumps is normally designed to be 10 – 20 l/minute and pumping head is 30m.
- In Zambia, the Indian Mark II type is commonly used for hand pumps which has the pumping head of less than 50m and the lifting rate of 15l/mintute.
- There are special type of hand pumps for deep wells which are capable for 60 -80 m of pumping head. However those are not commonly used, due to high frequency of malfunction, and difficulties of lifting rate and lifting time.

3 Current Situation of Underground Water and Water Supply Facilities in Lusaka City

Current situation of underground water development and water supply facilities in Lusaka city is summarized below.

- The first aquifer of laterite formation is utilized for water resources of shallow wells. According to the water quality tests by the basic design study for water supply project in George (1993) and water quality data of shallow wells conducted by LDHMB, water resources of shallow wells are polluted with coliform as tabulated below.

Water Quality Data

| Sist | Fecal Coliform (Number/ml) | Coliform (Number/ml) | Site | Fecal Coliform (Number/ml) | Coliform (Number/ml) |
|--|----------------------------|----------------------|--------------|----------------------------|----------------------|
| I. Water Quality Analysis Data of the Basic Design Study for Lusaka Region Water Supply Project | | | | | |
| George 1 | - | 32 | Desai | - | 44 |
| George 2 | - | 16 | Chikolokoso | - | Polluted |
| Soweto | - | 70 | Paradise | - | 43 |
| II. Water Quality Analysis Data of Lusaka DHMB | | | | | |
| Ng'ombe 1 | 0 | 0 | Makeni | 0 | 0 |
| Ng'ombe 2 | 43 | Polluted | George 1 | 71 | Polluted |
| Ng'ombe 3 | 110 | Polluted | George 2 | 22 | Polluted |
| Chainda | 0 | 0 | George 3 | 5 | Polluted |
| Kanyama | 1100 | Polluted | George 4 | 10 | Polluted |
| WHO Standard | 0 | 0 | WHO Standard | 0 | 0 |

NGOs and international organizations also report that most of shallow wells with the depth within 30m are polluted with coliform, etc. The water quality data of LDHMB is summed up from test results produced by various organizations for several years.

- LCC instructs communities to stop the use of shallow wells in Unplanned Urban Settlements (UUSs).
- LWSC specifies the minimum requirements for satellite water supply systems which is equivalent to Level 2 of JICA standard. This requirement aims to secure urban water supply systems and easy operation and maintenance by LWSC.
- LWSC is not concerned with hand pumps. Therefore communities have to operate and maintain them.
- Operation and maintenance system of water supply by hand pumps is not standardized. There are water supply services in which water tariff is properly collected by communities, while there are another cases where water charges are not collected.

- Most of hand pumps are not properly maintained. If damaged, those pumps are left off.

4 Construction Cost and O&M Cost for Level 1 and Level 2

Direct construction cost is estimated around US\$5,400 for the boring works of a shallow well within 50 m in depth and the installment of hand pumps (Indian Mark II). Construction cost in Freedom is estimated for a trial where hand pumps are installed to comply with LWSC standard for urban water supply system. Maximum distance from every household to water points is specified 200m and queuing time is regulated within 10 minutes. Necessary number of hand pumps and construction cost is estimated as mentioned in the following table.

Estimation for Level 1

| | |
|---|--|
| Required number of hand pumps to comply with accessibility: | 14 sets or more (Same conditions with water taps of Level 2) |
| Operation time of hand pump: | 10 hours (Same conditions with Level 2) |
| Lifting rate of hand pump: | 15 l/min. |
| Planned water supply volume (2005): | 200m ³ /day |
| Required number of hand pumps to comply with water demand: | 23 sets or more (=200/(15x60x10/1000)) |
| Efficiency of hand pumps: | 0.75 |
| Required number of hand pumps: | 30 sets |
| Direct construction cost for shallow wells with hand pumps: | US\$162,000 |

Direct construction cost for water supply systems of Level 2 in Freedom is estimated at US\$350,000 which is approximately twice of the cost for shallow wells with hand pumps. The cost estimation for Level 2 is based on records of a pilot project implemented by local contractors. Although initial investment of Level 1 is less than that of Level 2, underground water of shallow wells are deteriorated. Furthermore cost-effectiveness of Level 2 will be similar to that of Level 1, when convenience and durability are taken into consideration. Those results can be applicable for the other UUSs.

Operation and maintenance cost for both of Level 1 and Level 2 includes salaries for tap attendants and repair cost. Chlorination equipment is also required for both water supply levels to secure safe drinking water. Consequently O&M cost for Level 2 exceeds over that of Level 1 by 320,000 Kwacha/month which covers 250,000 Kwacha/month for power supply and 70,000 Kwacha/month for pump operator. However LWSC will have responsibility for O&M of Level 2. Therefore Level 2 is judged to have advantage in stable water supply, reliability for O&M, and financial conditions rather than Level 1.

Since it is actual situation that hand pumps are not properly maintained, the water supply facilities of Level 2 is more suitable than those of Level 1 in order to secure sustainability, durability, and convenience, though the initial cost for Level 2 is rather higher than Level 1. On the other hand, the Project takes priority to establish O&M systems and water tariff collection systems. Level 2 is desirable to establish O&M organizations formed by RDC together with LCC and LWSC.

5 Conclusion

Due to pollution of underground water at shallow layers, introduction of Level 1 is not appropriate and accepted by the Zambian side. Level 2 is desirable to establish O&M system including water tariff collection. Since combined system of Level 1 and Level 2 will cause troubles for O&M, it is not recommendable. In conclusion, Level 1 will not be more cost-effective than Level 2 to secure convenience and durability of facilities, though construction cost for Level 2 is estimated at twice of that for Level 1. Therefore Level 2 is applicable for the water supply improvement of the Project.

ANNEX 3 NATIONAL PLAN AND PROJECT EFFECT FOR HEALTH AND HYGIENE EDUCATION

1 National Plan for Health Sector

1.1 National Health Strategic Plan

National Health Strategic Plan (2001-2005) in Zambia defines the Vision of health plan as “to provide Zambians with equity of access to cost effective, quality health care”. Under the Vision, the overall goal is set as “a society in which Zambians create environments conducive to health, learn the art of being well and provide basic level health care for all.

Based on the overall goal, the priority programs are set as listed below.

- Improvement of governance for health sector,
- Improvement of public sanitation,
- Review and implementation of basic health services,
- Expansion of service activities in health and medical facilities including improvement of referral systems,
- Securing human resources, and
- Rehabilitation and improvement of facilities.

In the governance for health sector, participation of stakeholders is given priority, while public sanitation focuses on child health and HIV/AIDS as well as malaria, infectious diseases, and hygiene with safe water. Malaria and some of infectious diseases relates to the water and hygiene. For instance, improper stock of water in a house leads outbreak of malaria mosquito. In other cases, improper water environment causes skin diseases and infectious diseases, such as cholera.

As mentioned above, since importance is given to the improvement of water and hygiene with autonomous participation of related organization, the Project is considered to be consistent with the national health plan.

1.2 Action Plan and Budget 2003

Under the Vision of the health plan, Action Plan and Budget 2003 of the Lusaka District Health Management Board (LDHMB) defines eight priority programs for 2003 as listed below.

- Malaria,
- Reproductive health and safe motherhood,

- Health for children,
- Environmental hygiene and health,
- Sexual infection, HIV/AIDS, tuberculosis, and leprosy,
- Mental health, and
- Medical supplies.

The priority programs include environmental hygiene and malaria which relates to the Project. The action plan defines the targets for both programs as tabulated below.

Target defined by Lusaka District Health Management Board

| Item | Target | Achievement (June, 2002) | Target for 2003 |
|--|---|--------------------------|----------------------|
| Malaria | Reduction of diseases from Malaria in every age group by the end of 2003 | 128.6 per 1000 people | 120 per 1,000 people |
| | Reduction of deaths from Malaria in every age group by the end of 2003 | 22.7 per 1,000 people | 16 per 1,000 people |
| Environmental Hygiene (Water and Sanitation) | Reduction of infection rate from diarrhea of children less than 5 years old to 197 cases per 1,000 people | 207.4 per 1000 people | 193 per 1,000 people |

Source: Action Plan and Budget 2003, Lusaka District Health Management Board

2 Project Effect

2.1 Relevance between Water-borne Diseases and Skin Diseases

Literature of World Bank, UNICEF, and WHO points out close relation of polluted water to water-borne diseases, such as cholera, dysentery, skin diseases, and trachoma. It is also pointed out that the water supply systems should be provided together with promotion for improvement of residents behaviors.

It is reported that improvement of hygienic customs of residents may reduce water-borne diseases as listed below (World Bank, Water, sanitation & hygiene, March, 2002).

- Infection rate of diarrhea was reduced by 33% after education of hand wash, hygiene, and skin sanitation for mothers in Gambia.
- Infection rate of diarrhea was reduced by 27% after distribution of cakes of soap in refugee camps in Malawi, and
- Infection rate of diarrhea for children was reduced by 33% after distribution of cakes of soap and education of hand wash to mothers in urban areas in

Bangladesh.

Based on those reports, health and hygiene education for residents is judged to take effects for reduction of infection rate against water borne diseases.

In JICA PHC Project Phase 1 (March, 1997 – March, 2002) in Zambia, environmental hygiene improvement is considered one of main activities. Death rate of cholera in UUSs was reduced from 70 persons/10,000 population in 1994 to one person in 2000 by efforts including health education through household visits, construction and operation/maintenance of model VIP toilets, and implementation of solid waste collection.

However it is said that the quantitative relevance between the reduction of diseases and the health and hygiene activities is difficult to be defined. Since outbreak of diseases is related to various factors including hygiene customs, improvement of hygiene customs can not be definitely proved to show quantitative effect for diseases. Furthermore people normally do not go to medical facilities when they get diarrhea. Those people are not recorded in statistics. Therefore it is difficult to establish complete indicators to define relation between infection reduction and health and hygiene education, though the following activities are conducted to prepare the project effect indicators.

- To establish control groups,
- To conduct investigation to prepare the record of actual situation which is not covered by normal statistics.

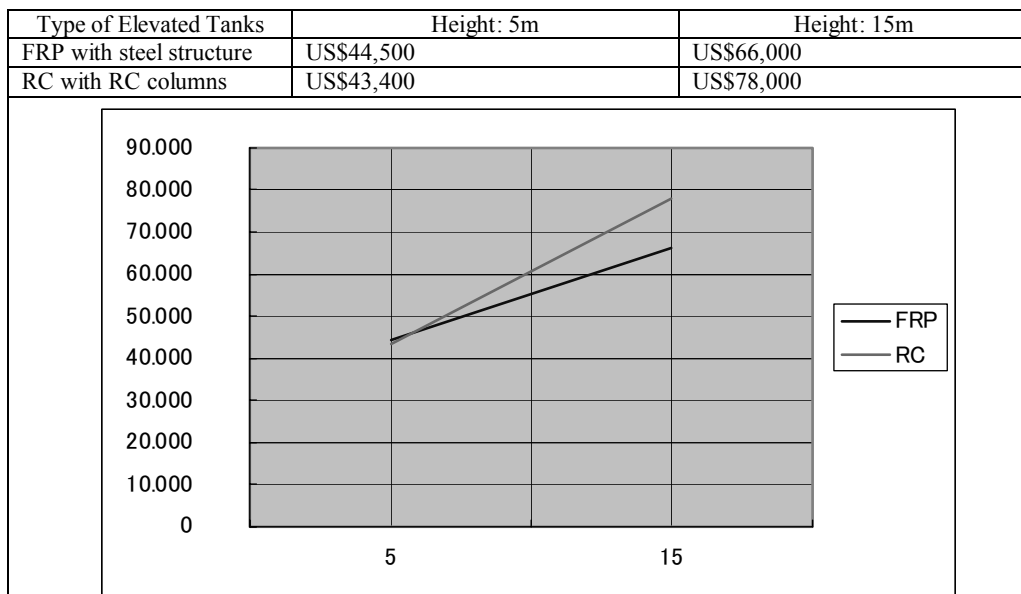
In conclusion, it is assumed that infection rate of water-borne diseases will be reduced by construction of water supply facilities and implementation of health and hygiene education. However it should be noted that the project effect can not be defined in objective and quantitative indicators.

ANNEX 4 TYPE OF ELEVATED TANK

Elevated tanks of LWSC satellite water supply systems are generally made with FRP (Fiber Reinforced Plates) or GSP (Galvanized Steel Plate) and steel structures. It is an unique case that RC (Reinforced Concrete) type is used for elevated tanks in George. The RC tanks were constructed by the Japan's Grant Aid Scheme. Because construction cost of steel type is lower than that of RC type. Furthermore the construction technology for high structure of RC type is not well-experienced in the country.

Superiority of construction cost for elevated tanks made of FRP with steel structure and RC with RC columns relates to the height of structures. Direct construction cost is preliminarily estimated as shown in the following table for tanks with the capacity of 150 m³ and the height of 5m and 10m.

Construction Cost for Elevated Tanks



Although construction cost for RC tanks lower than 6m is rather smaller than that of FRP type, cost for FRP higher than 6m becomes less than that of RC type. In the Project, all elevated tanks have the height of 10m or more in three target areas. FRP type is more reasonable than RC type from the view point of investment cost. Since construction cost of GSP type is less than that of FRP type by 10% and the GSP type is normally used in the country, the GSP type is selected for the elevated tanks in the Project.

Although the durability of the steel type is inferior to the RC type, the steel type has advantages in construction cost. Taking community-managed water

supply systems into consideration, GSP tank with steel structure is selected for three target areas to secure easy maintenance by integration of type and specification of elevated tanks.

ANNEX 5 CURRENT SITUATION OF RELATED ORGANIZATION

1 Ministry of Local Government and Housing (MLGH)

1.1 Organization

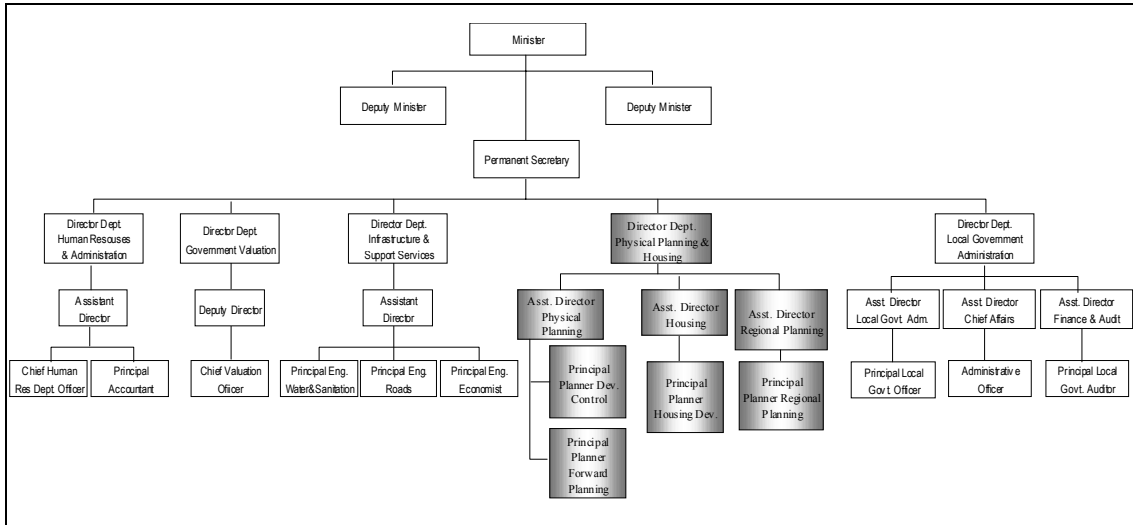
MLGH, which consists of five departments, is expected to effectively and efficiently provide communities with good services through local governments. Though MLGH is responsible for different social services, the number of staffs shrunk down from about 240 in 1993 to 186 in March 2003, as part of a national ministries' restructuring program that was launched in 1997. The number of staffs and roles by each department is tabulated below.

Number of Staffs and Roles by Department of MLGH

| Department | No. of Staffs | Role and Responsibility |
|--|---------------|---|
| Minister, Permanent Secretary, etc | 4 | — |
| Dept. of Human Resources and Administration | 80 | <ul style="list-style-type: none"> • General personal affairs and administration |
| Dept. of Government Valuation | 28 | <ul style="list-style-type: none"> • Supervision of services by local governments and management support for local governments |
| Dept. of Infrastructure and Support Services | 16 | <ul style="list-style-type: none"> • Infrastructural development (mainly water supply, sanitation facilities, and road networks, etc.) • Coordination between donors, NGO, local governments, and MLGH. |
| 政府評価局 | 39 | <ul style="list-style-type: none"> • Assets evaluation and consultation of immovable properties. • Preparation of national tax system and support for local government to evaluate assets. |
| Dept. of Physical Planning & Housing | 19 | <ul style="list-style-type: none"> • Promotion of sustainable and well-ordered residential areas. • Provision of proper residences for every income groups. |

An organization chart of MLGH is shown in the following figure.

MLGH Organization Chart



Note: Department with mesh is responsible for the Project.

Department of Physical Planning and Housing will be involved in the implementation of the Study. This department does not have sufficient number of staffs. They all have to cope with much work and hold different positions. Each of them has no more time for extra work. Consequently they have a problem of inefficiency in their work. Therefore, it is needed that they appropriately increase staff members and stop holding more than one post at a time so as to solve the problem that staffs struggle with too much work.

1.2 Finances

MLGH's annual expenditures in the course of four consecutive years are presented in the following table. While expenditure for infrastructural investment is a major expense in 1999, subsidy takes the largest portion of expenses after 2001. The subsidy is mainly used for support to local governments and soft-components which reflects current trends of decentralization and priority to soft-components in the Zambian government. They don't afford an extra expense anymore as every year the organization had a deficit. Therefore, financial arrangement by MFNP is indispensable for the implementation of the Project.

Expenditure of MLGH (1999 – 2002)

(million Kwacha)

| | 1999 | | 2000 | | 2001* | | 2002 | |
|----------------------|---------|---------|---------|---------|---------|--------|---------|---------|
| | Budget | Actual | Budget | Actual | Budget | Actual | Budget | Actual |
| Personnel Expense | 1,416 | 1,486 | 2,000 | 2,056 | 2,070 | n.a. | 3,277 | 3,297 |
| Ordinary Expenditure | 5,515 | 4,925 | 5,384 | 5,384 | 12,488 | n.a. | 5,820 | 5,845 |
| Grant, Others | 5,555 | 5,555 | 13,184 | 17,491 | 35,560 | n.a. | 17,564 | 36,835 |
| Capital Expenditure | 17,161 | 23,961 | 5,240 | 25,940 | 6,789 | n.a. | 5,500 | 5,500 |
| Sub-total | 29,647 | 35,927 | 25,808 | 50,871 | 56,907 | n.a. | 32,161 | 51,477 |
| Loan, Investment | 102,580 | 102,580 | 82,067 | 82,067 | 216,105 | n.a. | 233,768 | 241,768 |
| Total | 132,227 | 138,507 | 107,875 | 132,938 | 273,012 | n.a. | 265,929 | 293,245 |

*: Record of actual expenditure in 2001 is not available.

Resource: MLGH

2 Lusaka City Council (LCC)

2.1 Organization

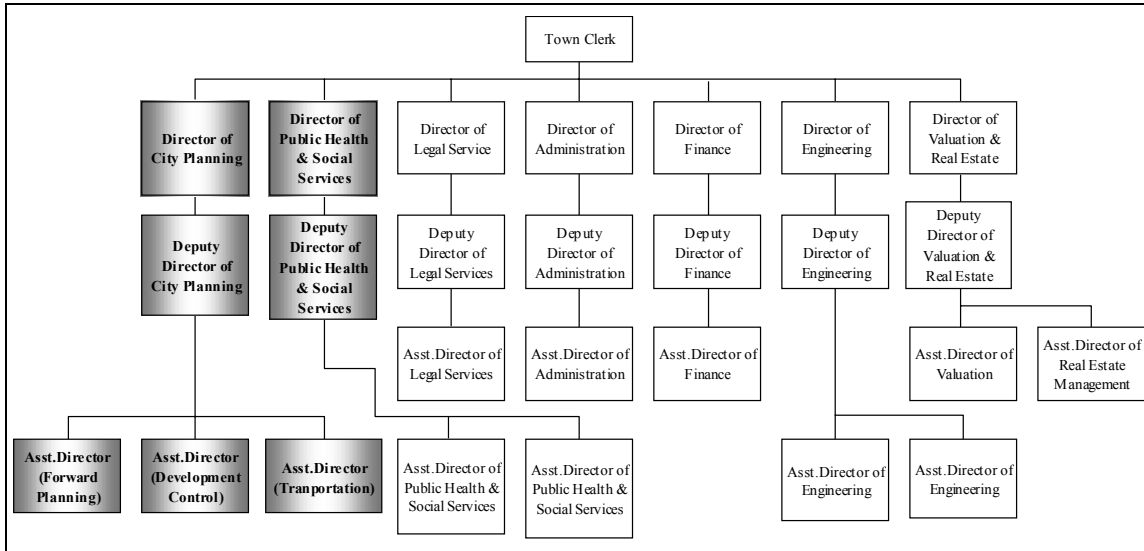
LCC consists of seven sections and have a staff of 2,142 persons as of March 2003. The organization chart and the number of staffs by department of LCC is shown below.

Number of Staffs by Department of LCC

(persons)

| Department | Staffs | Other Employees | Total |
|--|--------|-----------------|-------|
| Financial department | 131 | | |
| Valuation and Real Estate department | 27 | 55 | 213 |
| Engineering department | 150 | | |
| City Planning department | 33 | 487 | 670 |
| Legal department | 127 | 144 | 271 |
| Public Health and Social Services department | 178 | 713 | 891 |
| Others | 97 | - | 97 |
| Total | 743 | 1,399 | 2,142 |

LCC Organization Chart



City Planning Department and Public Health Department are the departments which play a very important role for the development of UUSs and the improvement of public services. Each of the departments has a “Peri-urban section” which is responsible for the periphery of the urban area. These are the two main sections involved in the Project. The Peri-urban section of Public Health Department covers coordination between different organizations, residents’ participation in the Project, and support to RDCs, while the counterpart of City Planning Department covers land adjustment, and design and construction of houses. Major roles of each department is summarized below.

Roles by Department of LCC

| City Planning Department Side | Public Health Department Side |
|--|---|
| 1) Clarification of land plot, 2) Development of land plot, 3) Consultation of disputes related to boundaries, 4) Education of residents for planning and construction of building, and 5) Observation of illegal buildings. | 1) Promotion of community-participation for development in UUSs, 2) Support to establish RDC, 3) Coordination with other organizations such as NGO, governmental bodies, and donors, 4) Coordination with internal organizations such as departments, 5) Registration of households, and 6) Support for observation of illegal buildings and developments. |

2.2 Finances

LCC recorded 1,150 million Kwacha equivalent to 5% of total revenue in the red in 1999. In 2000 this situation ameliorated with a deficit of 290 million Kwacha equivalent to 1% of total revenue. Since 2001 LCC has been financially well balanced with black-ink.

LCC Annual Budget and Results (FY1999 - FY2002)

(million Kwacha)

| | FY1999 | | FY2000 | | FY2001 | | FY2002 | |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Budget | Actual | Budget | Actual | Budget | Actual | Budget | Actual |
| Revenue | 25,200 | 10,476 | 27,143 | 12,541 | 46,144 | 17,586 | 43,156 | 24,967 |
| Tax | 8,456 | 4,791 | 12,806 | 7,908 | 27,536 | 9,418 | 25,983 | 12,656 |
| Commissions | 7,699 | 1,806 | 6,262 | 1,469 | 8,309 | 2,794 | 4,870 | 3,245 |
| Rent | 2,317 | 392 | 3,620 | 314 | 3,398 | 387 | 1,987 | 466 |
| Permission | 1,357 | 393 | 1,095 | 408 | 1,928 | 956 | 1,965 | 969 |
| Asset sale | 3,004 | 1,348 | 622 | 336 | 1,532 | 221 | 1,182 | 842 |
| Land develop. | 622 | 589 | 480 | 349 | 500 | 516 | 500 | 907 |
| Subsidy | 578 | 300 | 624 | 332 | 600 | 2,032 | 5,500 | 4,573 |
| Other | 1,167 | 857 | 1,634 | 1,425 | 2,340 | 1,262 | 1,169 | 1,309 |
| Expenditure | 25,088 | 11,626 | 27,182 | 12,831 | 46,144 | 16,718 | 43,156 | 23,230 |
| Personnel expense | 10,892 | 7,337 | 10,774 | 8,868 | 17,176 | 9,842 | 21,807 | 16,096 |
| Land maintenance | 3,112 | 226 | 1,939 | 307 | 1,674 | 736 | 1,488 | 536 |
| Services | 4,071 | 487 | 5,999 | 463 | 8,778 | 548 | 4,011 | 824 |
| Vehicles | 599 | 726 | 974 | 910 | 2,362 | 525 | 1,779 | 887 |
| Facilities | 1,839 | 824 | 2,512 | 1,051 | 2,284 | 956 | 1,868 | 1,838 |
| Others | 1,212 | 948 | 2,386 | 854 | 6,005 | 3,351 | 6,369 | 1,823 |
| Debt commission | 5 | 0 | 5 | 77 | 392 | 134 | 433 | 681 |
| Land develop. | 222 | 20 | 480 | 0 | 500 | 35 | 500 | 7 |
| Personnel expense in advance | 0 | 325 | 0 | 0 | 0 | 0 | 0 | 0 |
| Capital expense ⁽¹⁾ | 3,136 | 733 | 2,074 | 301 | 6,973 | 591 | 4,902 | 538 |
| Balance | 112 | -1,150 | 0 | -290 | 0 | 868 | 0 | 1,737 |

Resource: Financial Department, LCC

After the fiscal year of 2001, this remarkable financial recovery attributes to the following reasons.

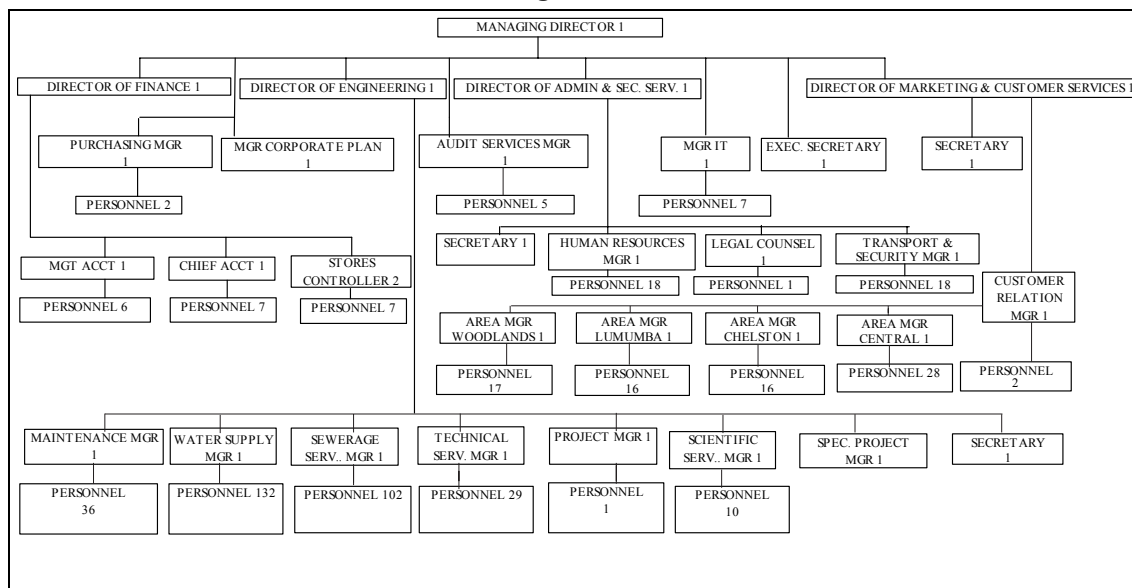
- Tax collection system was partially computerized in 2001, which raised the rate of property tax and poll tax.
- A grant from the central government skyrocketed in 2001 from 300 million kwacha until 2000.

In the revenue side, the main income resources of LCC are tax income from asset tax, individual tax, and commissions fees. Those incomes are managed for expense of public services. On the other hand, in the expenditure side, personnel expense is the largest expenditure. Until FY2000, LCC officials have experienced delay of salary payments for three to four months, due to the deficit of revenue and the strict cash control. After the financial improvement, salary is paid monthly in the middle of 2002.

3 Lusaka Water and Sewerage Company (LWSC)

Lusaka Water and Sewerage Company is the executing body for water supply services. LWSC is totally financed by LCC. Its organization chart is shown below.

LWSC Organization Chart



Current numbers of staffs is tabulated below.

Number of Staffs by Department of LWSC

| Department | Staffs | Notes |
|---------------------------------|------------|--|
| Administration | 20 | <ul style="list-style-type: none"> • Purchase, Audit, Information/Organizational Management, Secretary |
| Engineering | 319 | <ul style="list-style-type: none"> • Planning/Implementation, and O&M of facilities • Including Lusaka Water Works responsible for maintenance of vehicles and equipment, • Including Kafue Water Works responsible for water treatment plants, and • Including a section responsible for Peri-urban areas |
| Finance | 25 | <ul style="list-style-type: none"> • Accounting |
| Personnel Affair | 42 | <ul style="list-style-type: none"> • Management of personnel affairs |
| Marketing and Customer Services | 85 | <ul style="list-style-type: none"> • Customer services (excluding satellite water supply systems) |
| Total | 491 | |

LWSC contracts water supply projects out to international organizations, local consultants, and contractors. Those consultants and contractors are not registered by LWSC, consequently public announcement is published by newspaper for tendering of each project. Contractor is usually selected by the past experiences, while LWSC often prepares short lists. Apart from construction works, operation and management department has registration of suppliers for materials and equipment.

Financial records of consecutive three years from 1999 to 2001 are tabulated below.

Financial Balance of LWSC

(million Kwacha)

| Item | 1999 | | 2000 | | 2001 | |
|--------------------------------|---------|-------|--------|-------|---------|-------|
| | Amount | (%) | Amount | (%) | Amount | (%) |
| A. Income | 34,108 | 100.0 | 37,239 | 100.0 | 34,372 | 100.0 |
| -Water tariff (incl. sewerage) | 30,070 | 88.2 | 30,846 | 82.9 | 34,186 | 99.5 |
| -Interest | 276 | 0.8 | 201 | 0.5 | 87 | 0.2 |
| -Other | 3,762 | 11.0 | 6,192 | 16.6 | 99 | 0.3 |
| B. Expenditure | 36,394 | 100.0 | 36,792 | 100.0 | 42,481 | 100.0 |
| -Salary | 6,199 | 17.0 | 8,159 | 22.2 | 8,360 | 19.7 |
| -Operation | 17,364 | 47.7 | 12,812 | 34.8 | 13,949 | 32.8 |
| -Facility maintenance | 517 | 1.5 | 1,331 | 3.6 | 1,659 | 3.9 |
| -Purchase | 615 | 1.7 | 523 | 1.4 | 673 | 1.6 |
| -Management cost | 11,699 | 32.1 | 13,967 | 38.0 | 17,840 | 42.0 |
| C. Balance | - 2,286 | | 447 | | - 8,109 | |

Source: LWSC

Due to the self-supporting system, LWSC records deficit in every year which has been carried over to the next fiscal year. After the independence from LCC in 1990, LWSC faces severe financial conditions which has no subsidy from governments. LWSC is now on the way of improvement in work efficiency and loss recovery.

LWSC does not have budgeted for new projects. In practice, improvement of water supply and sewerage facilities are developed by official development assistances, such as the Japanese government, World Bank, ADB, and other international organizations. Water supply systems in George is also developed by Japan's Grant Aid Scheme. Therefore it is unrealistic that LWSC will implement water supply improvement in UUSs. Maintenance cost records the largest share of 36 to 50 % in annual budget.

4 Ministry of Health (MOH)

MOH is in charge of planning and supervision of the whole health sector in terms of policy formulation, institutional improvement, and financial management, while CBH, a subordinate organization of MOH, provides health services. CBH has a PHMB at provincial level as a subordinate organization, and each PHMB has DHMBs that are responsible for provision of health services in each area. In case of Lusaka, Lusaka DHMB unifies health services in the area. DHMB is formed by administrative officials, representatives of communities and private firms to supervise health and clinic. DHMT takes responsibility for operation and management for health and medical services.

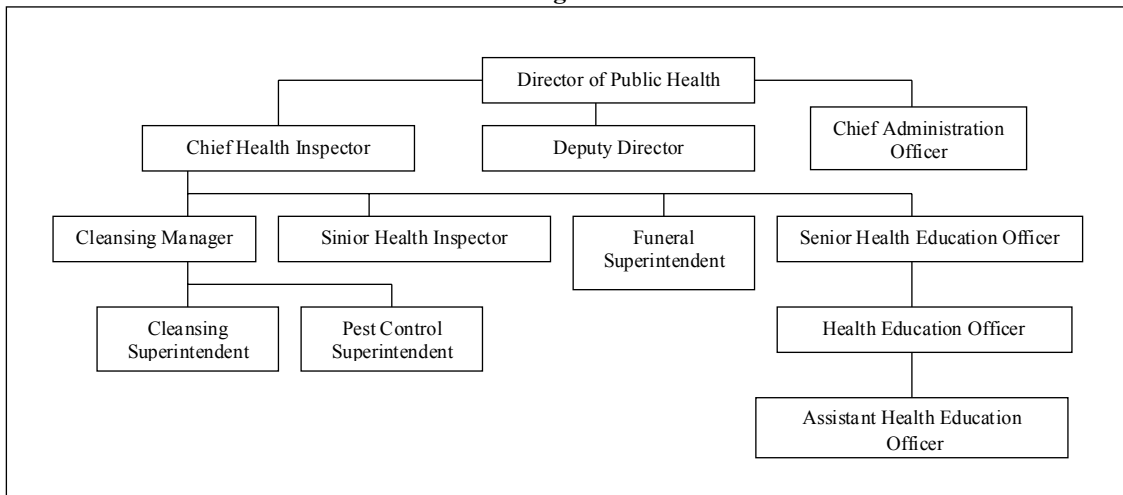
Each area has a health center to provide services for both of prophylaxis and medical treatment. In Lusaka city, there are currently 25 health centers which observe responsible areas divided into approximately 10 zones. In each area, NHC is formed by ten residents selected from each zone to provide

community health activities. NHC has Executive Committee by one representative from each zone. The Executive Committee is able to submit request to DHMBs through health centers. Under the jurisdiction of health centers, residents establishes community-based bodies, such as CHW in voluntary basis. The health centers coordinate activities of NHC and community-based bodies. In principle, one expert of EHT works in the health centers to improve health and hygiene conditions through visiting the responsible areas.

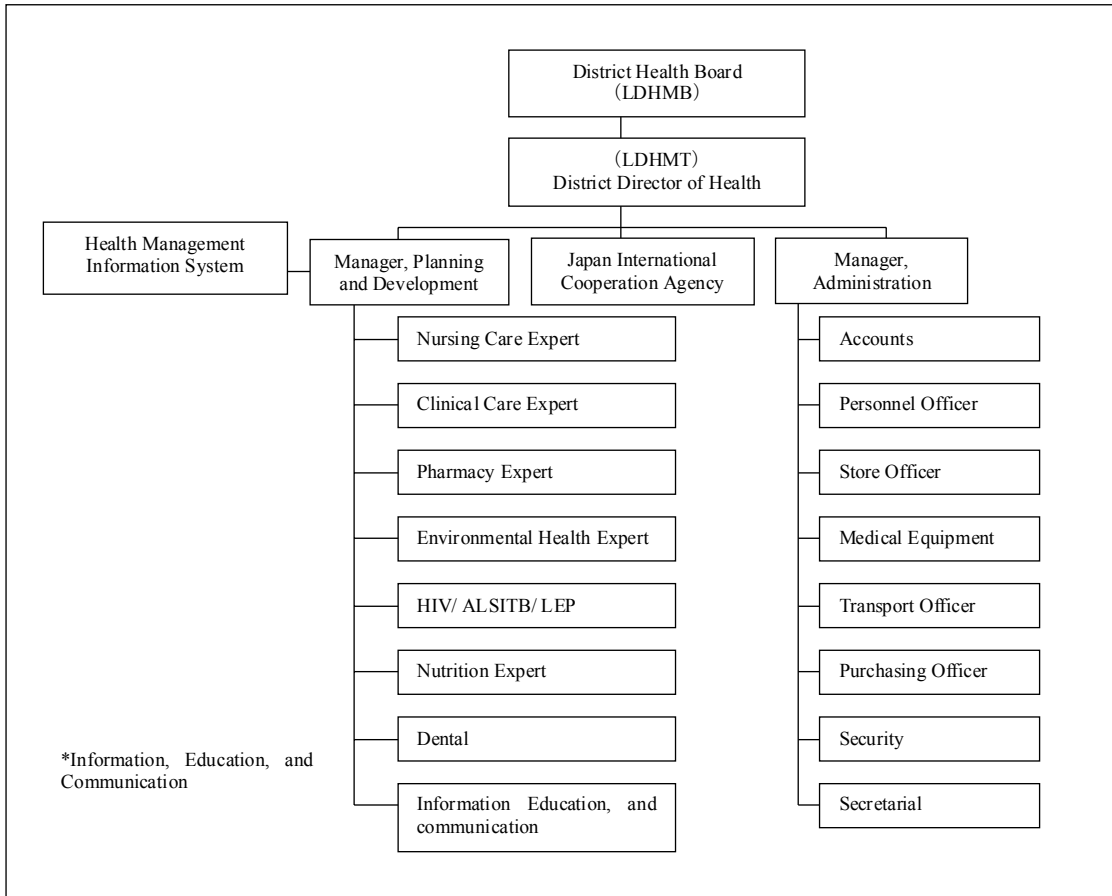
At LCC level, PHD is responsible for prophylaxis, while all medical treatment services are entrusted to LDHMB. Two staffs of PHD hold two positions concurrently to coordinate PHD and LDHMB.

The organization chart of LCC-PHD is shown below.

LCC PHD Organization Chart



LDHMB Organization Chart



5 Resident Development Committee (RDC)

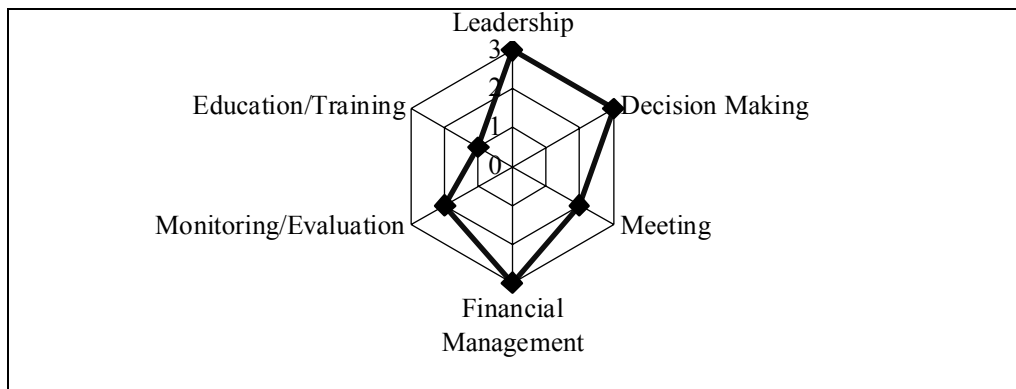
5.1 Ng'ombe

There have been 12 RDC members since an election in November 2002. Decision is made by more than two of third of the RDC members. RDC holds regular meeting twice a month and extra meeting for emergency cases, etc. The meeting has attendants more than two of third of the RDC member and its minutes and financial records are kept by RDC.

Capacity of community-based activities was surveyed by questionnaire to RDCs in three UUSs (referred to attached questionnaire and answers by RDC). The result of an evaluation of the present community capacity is shown in the radar chart below. The community is excellent in “Leadership”, “Decision Making”, and “Financial Management”, but mediocre in “Education and Training”; there have been no more than four members who attended a SLP capacity building program, and any other activity has been conducted.

Considering all the factors, it could be said that the RDC organization is already quite mature. Only “Education and Training” is still vulnerable.

Present Community Capacity of N’gombe RDC



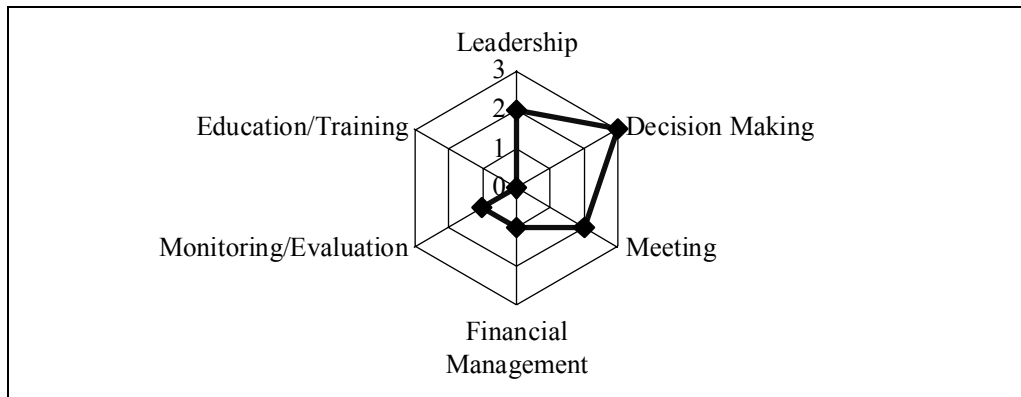
Note: Evaluation is conducted based on the questionnaire replied by RDC (as of March 2003)

5.2 Freedom

There have been 28 RDC members since an election in December 2002. Executive members of ten persons have been selected from 28 members. After the decision made by most of the RDC member, it is approved by the ten executive members. RDC weekly held regular meeting, in which ten executive members attend. RDC keeps minutes of the meetings. Although RDC recognized importance of financial management as well as monitoring and evaluation for community-based activities, those works are not practiced. RDC has no experience of education and training. It is confirmed that RDC has interest to receive the education.

The result of an evaluation of the present community capacity is shown in the radar chart below. The community is excellent in “Decision Making”, but still remains immature in the other factors; especially they have never experienced a training program. Therefore, it is indispensable to build up the body to improve its specific capacities in “Financial Management” and “Monitoring and Evaluation”.

Present Community Capacity of Freedom RDC



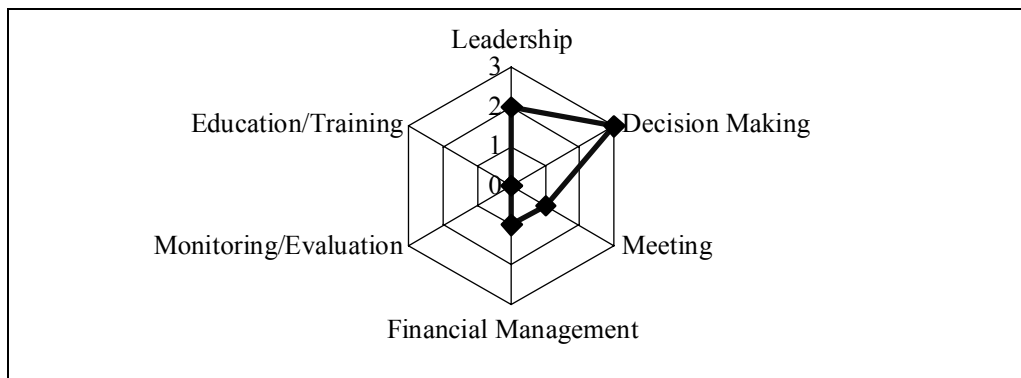
Note: Evaluation is conducted based on the questionnaire replied by RDC (as of March 2003)

5.3 Kalikiliki

This compound has now 20 RDC members. Decision of RDC is made by most of RDC members. RDC monthly held regular meeting at which a half of members attend. Minutes of the meeting and financial record is kept and managed. However RDC has not monitored and evaluated community-based organizations, while RDC has never received any education and training.

The result of an evaluation of the present community capacity is shown in the radar chart below. The community is excellent in “Decision Making”, but vulnerable in “Conference”, “Financial Management”, “Monitoring and Evaluation”, and “Education and Training”. As a whole, this community is considered to be the most immature in capacity. It is absolutely necessary to build up the RDC organization to improve its capacity.

Present Community Capacity of Kalikiliki RDC



Note: Evaluation is conducted based on the questionnaire replied by RDC (as of March 2003)

Confirmation of Current Conditions on RDC Activities and O&M for Water Facilities

1. Current Conditions on RDC Activities

| | |
|--|---|
| 1) How many RDC members do you have? | Ng'ombe RDC has 12 members who were elected into office on 8 th Nov. 2002 and they started working on 20 th March 2003. A lot of members are new and are now trying to settle down. |
| 2) Are the Role and Responsibility of RDC defined? | The role and responsibilities are defined through the Area Based Organization Constitution through Article 3 from 3.1 to 3.10, Article 4 from 4.1 to 4.8 and Article 5 from 5.1 to 5.11. |
| 3) Is the decision making of RDC made by majority or a few members? | The decision of the RDC is made by the majority. 2/3 of the membership. |
| 4) Do you have the regular meeting? (weekly or monthly) | Meetings of the RDC are held twice per month but there are extra-ordinary meetings for the urgent matters. |
| 5) Who is attendance at the meeting? (full members or about half or a few member) | Two thirds of the RDC members attends the meetings. |
| 6) Do you keep the meeting record? (always recorded or sometimes recorded) | The minutes of the meetings are recorded and kept by the RDC. |
| 7) Do your RDC members participate in the RDC activities? (full members or about half or a few member) | Full members attend the activities of the RDC but at times two thirds of the members attended. |
| 8) Do you keep the financial record of RDC activities? (always recorded or sometimes recorded) | Financial record are kept and always recorded. |
| 9) Do you have fund raising/income generation activities? (some stable income or occasional income) | Yes. Funds collected from the hand pump boreholes which were donated by the Rotary Club of Nkhwazi in 1997. It is the only stable income for the RDC and the community. |
| 10) Do you have the contact persons including LCC officers to settle the problems in your compound? | Yes. There is a site office for Lusaka City Council and the RDC executive who was ushered in office on 20 th March, 2003. |
| 11) Do you carry out the monitoring and evaluation systems for the community activities? (regularly done or occasionally done or seldom) | Yes. Monitoring and evaluation of the activities are done regularly by the RDC. |
| 12) Do you have any training course? (majority acquired or a | A few members acquired training on Capacity Building. 4 members received the training with the |

| | |
|---|--|
| few members acquired) | help of Sustainable Lusaka Programme. |
| 13) What kinds of training do you have? | Capacity building was the training given just to four persons in the current RDC executives. |

2. Current Conditions on O&M for Water Facilities

| | |
|--|--|
| 1) Do you have the water committee? | Yes. There are 12 members on the water committee. The names are attached on Appendix I. |
| 2) Please draw the organization structure of the water committee. | <p style="text-align: center;">Structure of the Water Committee Zones in Ng'ombe are 12.</p> <pre> graph TD ZDC[Zone Development Committee Members are 120.] <--> WSC[Water Sub-committee] WSC <--> CP[Chairperson] CP <--> VCP[Vice-Chairperson] VCP --> S[Secretary] VCP --> VS[Vice-Secretary] S <--> VS S <--> T[Treasurer] VS <--> T VS <--> VT[Vice-Treasurer] T <--> VT S <--> CM[Committee Members] VT <--> CM </pre> <p>Note: Each water sub committee members represents a zone where he or she is coming from.</p> |
| 3) How much is current water tariff? - Monthly fee (limitation of water per day) - Fee per bucket | <ul style="list-style-type: none"> - Current water tariff for LWSC is K3,500/month/hh. - Hand pump boreholes tariff are K2,500/month/hh. - Limitation of water per household per day is 120 lit. - Fee per bucket for 20 liter is K100 for both sources. |
| 4) How much is the water registration fee? | Water registration per household is K2,000 per year (membership). |
| 5) How many tap attendants do you have? | Tap Attendants are 11 and 5 hand pump borehole attendants. |
| 6) How much is salary of water committee members including tap attendants? | Water committee members don't get any salary. Tap and Borehole attendants get a salary from K35,000 to K100,000 per month depending on how much one cashes. |
| 7) How much is the operation and maintenance cost per day or per month? - Operation cost (salary, electricity, stationery, etc.) - Repairing cost (material cost | <p>The operation and maintenance costs per month depends on the type of the job is done in that particular month.</p> <ul style="list-style-type: none"> - Operation costs salaries is K900,000/month. - Repairing costs K3,700,000 and it also fluctuates depending on the types of works to be done. |

| | |
|---|---|
| per month both major and minor repairing, payment for technician) - Replacement cost | - Stationery and typing is K350,000/month. |
| 8) How is the condition of financial arrangements? (Please give us your financial statement and the bank account.) | The current committee is new. The official hand over was done but there are other things that the old RDC should hand over immediately. |
| 9) Do you get any technical assistance from NGO, LCC, LWSC, etc.? - Assistance in management skill - Technical assistance for repairing and operation of the system | - No management skills in water were given to the RDC committee. - No technical assistance on repairing and maintenance were given to the committee. |

3. Current Conditions on O&M for Community Center

| | |
|--|---|
| 1) Do you have the community center? | Ng'ombe community has no community center. |
| 2) If you don't have the community center, do you need the community center? | Yes. Absolutely the RDC and Ng'ombe community needs the community center. |
| 3) What purpose do you use the community center? | Purposes for the community center are as follows. Meetings for the RDC, community and stakeholders. Training purposes and income generating (hiring). |
| 4) Which place do you use for the RDC or ZDC meeting? | The RDC and the community use the rented building for all the activities. |
| 5) How much is the rental fee of the meeting place? | Rental fees for the place is K350,000 per month. |
| 6) What kinds of the meeting or training do you have at present? | Kinds of meetings we have are: a) RDC meeting b) Community meetings c) Stakeholders meetings d) ZDC meetings |
| 7) Who is attendant for the RDC meeting? | Zone leaders, ZDC members, Stakeholders and community members attend the meetings. |

Confirmation of Current Conditions on RDC Activities and O&M for Water Facilities

1. Current Conditions on RDC Activities

| | |
|--|---|
| 1) How many RDC members do you have? | 28 persons. 10 executives (Chairperson, Vice-chairperson, Secretary, Vice-secretary, Treasurer, Vice-treasurer, and 4 committees) and 18 zone representatives. |
| 2) Are the Role and Responsibility of RDC defined? | Yes. (constitution) |
| 3) Is the decision making of RDC made by majority or a few members? | Majority, then the RDC executive approves. |
| 4) Do you have the regular meeting? (weekly or monthly) | We have weekly. |
| 5) Who is attendance at the meeting? (full members or about half or a few member) | Executive members. |
| 6) Do you keep the meeting record? (always recorded or sometimes recorded) | Yes, they are always recorded. |
| 7) Do your RDC members participate in the RDC activities? (full members or about half or a few member) | A few participate. |
| 8) Do you keep the financial record of RDC activities? (always recorded or sometimes recorded) | We shall be doing so. (Presently not recorded since they are recently ushered into the office.) |
| 9) Do you have fund raising/income generation activities? (some stable income or occasional income) | Not yet. |
| 10) Do you have the contact persons including LCC officers to settle the problems in your compound? | Yes, we have. |
| 11) Do you carry out the monitoring and evaluation systems for the community activities? (regularly done or occasionally done or seldom) | Seldom. But we shall soon start. |
| 12) Do you have any training course? (majority acquired or a few members acquired) | No, if it is put in place, majority will be acquired. |

| | |
|---|-------|
| 13) What kinds of training do you have? | None. |
|---|-------|

2. Current Conditions on O&M for Water Facilities

| | |
|--|--|
| 1) Do you have the water committee? | Yes. |
| 2) Please draw the organization structure of the water committee. | Chairperson, Secretary, Treasurer and their vices, plus two committee members. |
| 3) How much is current water tariff? - Monthly fee (limitation of water per day) - Fee per bucket | Per 6 containers (20 lit/container) K150 and monthly is K3,000/month. |
| 4) How much is the water registration fee? | K150- |
| 5) How many tap attendants do you have? | 5 Tap Attendants |
| 6) How much is salary of water committee members including tap attendants? | K40,000/month/TA |
| 7) How much is the operation and maintenance cost per day or per month? - Operation cost (salary, electricity, stationery, etc.) - Repairing cost (material cost per month both major and minor repairing, payment for technician) - Replacement cost | They fix minor problems and ask LWSC for major problems. However, they do not have figures for the cost of repairing. |
| 8) How is the condition of financial arrangements? (Please give us your financial statement and the bank account.) | Financial statement and bank account are in the Bank of LWSC. |
| 9) Do you get any technical assistance from NGO, LCC, LWSC, etc.? - Assistance in management skill - Technical assistance for repairing and operation of the system | When the system is broken down, the community asks LWSC to repair it. However, the response of the LWSC is quite slow. |

3. Current Conditions on O&M for Community Center

| | |
|--|--|
| 1) Do you have the community center? | No |
| 2) If you don't have the community center, do you need the community center? | Yes |
| 3) What purpose do you use the community center? | For community activities, ex. training, seminars, etc. |
| 4) Which place do you use for the RDC or ZDC meeting? | R.C.Z. Church |
| 5) How much is the rental fee of the meeting place? | K130,000 (day) |
| 6) What kinds of the meeting or training do you have at present? | No any training, we have the meetings concerning development programs. |
| 7) Who is attendant for the RDC meeting? | The RDC executive members |

Confirmation of Current Conditions on RDC Activities and O&M for Water Facilities

I. Current Conditions on RDC Activities

| | |
|--|--|
| 1) How many RDC members do you have? | 20 members |
| 2) Are the Role and Responsibility of RDC defined? | Yes |
| 3) Is the decision making of RDC made by majority or a few members? | Majority |
| 4) Do you have the regular meeting? (weekly or monthly) | Monthly |
| 5) Who is attendance at the meeting? (full members or about half or a few member) | About a half |
| 6) Do you keep the meeting record? (always recorded or sometimes recorded) | Always |
| 7) Do your RDC members participate in the RDC activities? (full members or about half or a few member) | Half |
| 8) Do you keep the financial record of RDC activities? (always recorded or sometimes recorded) | Always |
| 9) Do you have fund raising/income generation activities? (some stable income or occasional income) | Occasional |
| 10) Do you have the contact persons including LCC officers to settle the problems in your compound? | Yes |
| 11) Do you carry out the monitoring and evaluation systems for the community activities? (regularly done or occasionally done or seldom) | We haven't done since we are only 4 members in office. |
| 12) Do you have any training course? (majority acquired or a few members acquired) | No |

| | |
|---|-----|
| 13) What kinds of training do you have? | Nil |
|---|-----|

2. Current Conditions on O&M for Water Facilities

| | |
|--|-----|
| 1) Do you have the water committee? | No |
| 2) Please draw the organization structure of the water committee. | Nil |
| 3) How much is current water tariff? - Monthly fee (limitation of water per day) - Fee per bucket | Nil |
| 4) How much is the water registration fee? | Nil |
| 5) How many tap attendants do you have? | Nil |
| 6) How much is salary of water committee members including tap attendants? | Nil |
| 7) How much is the operation and maintenance cost per day or per month? - Operation cost (salary, electricity, stationery, etc.) - Repairing cost (material cost per month both major and minor repairing, payment for technician) - Replacement cost | Nil |
| 8) How is the condition of financial arrangements? (Please give us your financial statement and the bank account.) | Nil |
| 9) Do you get any technical assistance from NGO, LCC, LWSC, etc.? - Assistance in management skill - Technical assistance for repairing and operation of the system | Nil |

3. Current Conditions on O&M for Community Center

| | |
|--|---|
| 1) Do you have the community center? | No |
| 2) If you don't have the community center, do you need the community center? | Yes |
| 3) What purpose do you use the community center? | No answer |
| 4) Which place do you use for the RDC or ZDC meeting? | Hillside Baptist Church and lingham grocery |
| 5) How much is the rental fee of the meeting place? | Nil |
| 6) What kinds of the meeting or training do you have at present? | RDC meetings No training |
| 7) Who is attendant for the RDC meeting? | Stakeholders councilor |

ANNEX 6 COLLABORATION WITH OTHER DONORS

1 Activities of Other Donors

Activities of other donors in Zambia are mentioned in the following table. There is no plan and project similar to the Project in the target areas, while donors conduct various activities.

Current Activities of Other Donors

| Donor | Current Activities |
|----------------|---|
| (a) World Bank | WB prepared Lusaka Integrated Development Plan in 2000 to propose the improvement of social services, the capacity building and utilization of communities, and the utilization of NGOs in unplanned urban settlements. The activities are currently focused on the development in agricultural areas and there is no development project in UUSs in urban areas. |
| (b) USAID | Main activities are to support for small-scaled farms in outskirts of Lusaka to cultivate vegetables for exports. Furthermore USAID supports small-scaled dairy farmers in Southern province. There is no activity in unplanned urban settlements in suburbs of cities. |
| (c) Irish Aid | Focusing on unplanned urban settlements in suburbs of cities, Irish Aid conduct health and hygiene, water supply, construction of community hall, and capacity building. In recent years, a part of agricultural villages are included in the target areas. |
| (d) UNICEF | UNICEF mainly conduct primary health care, nutrition improvement, general education, health and hygiene education, and support for women and children over the country. There is no activity in three target areas. Water supply improvement has priority in Central and Southern provinces. |

2 Activities of NGOs

There is no similar activity in three target areas, though NGO has experience of similar projects, such as water supply and capacity building.

Current Activities of NGO

| NGO | Current Activities |
|--|---|
| (a) CARE PROSPECT | CARE POROSPECT has a lot of experiences mainly for water supply. The program (CARE PROSPECT) will be completed in March, 2004. |
| (b) CARE PUSH | CARE PUSH gives priority for technical transfer to communities. Main activities are health education clinic, construction of community centers, and improvement of shallow wells. |
| (c) HUZA (Human Settlements of Zambia) | HUZA has activities in extensive fields including income generation, health and hygiene, housing improvement, environmental preservation, and basic education program for children. |
| (d) World Vision International | World Vision International has been conducting water supply and other various projects in Chainda since 1991. In recent years, the activities are focused on the development in agricultural areas. |
| (e) CCF (Christian Children's Fund) | CCF has activities mainly in suburbs of Lusaka and Southern Province. Major activities are health and hygiene education, water quality improvement, water supply management, basic education, and micro credit. |
| (f) Africare | Africare has activities for health and hygiene, capacity building, agricultural development, care for refugees, water supply in rural areas, and water quality improvement. There is currently no project in UUSs located in suburbs of cities. |

3 Collaboration with Donors and NGOs

1) Confirmation of Request for Operation and Maintenance to Other Donors and NGOs

It is confirmed that MLGH and LCC have not submitted any request for operation and maintenance to other donors and NGOs.

2) Collaboration in Aftercare after the Project

Possibility of aftercare is examined by the following three methods.

- Support from NGOs
- Support by JICA schemes apart from Japan's Grant Aid Scheme, and
- Support by PHC project

In discussion with NGOs and JICA, it is decided that aftercare should be properly conducted by the Zambian side.

- i) It is unrealistic that three target areas will be included in the areas covered by NGOs which currently has no activity and plan in the target areas.
- ii) NGOs will not produce any follow-up activities after the Project, if financial resources are not provided, due to capital and personnel restriction of NGOs.
- iii) The Project aims to develop water supply facilities and community centers and establish O&M organizations. Objectives of the Project are to develop initial service systems including facilities. Therefore it is desirable to conduct operation and maintenance after the Project by the Zambian side.

ANNEX 7 PLAN OF SOFT-COMPONENT

1 BACKGROUND

Based on the action area plan for eight Unplanned Urban Settlements (UUSs) prepared by the Study on Environmental Improvement of Unplanned Urban Settlements in Lusaka (JICA Master Plan Study), the Government of the Republic of Zambia requested the Government of Japan to implement living environmental improvement projects in Ng'ombe, Freedom, and Kalikiliki. The project consist of four programs: (1) Construction of water supply facilities, (2) Construction of community centers, (3) Health and hygiene education, and (4) Capacity building of communities. The project aims to improve living environmental conditions focusing on health and hygiene conditions by integrated improvement from water supply to water sanitation in the UUSs.

After implementation of the project, the water supply systems and health and hygiene education will be managed by community-based organizations. It is necessary to provide assistance to secure sustainable and proper activities by the community-based organizations.

The assistance includes capacity building of technical and management skills for operation and maintenance and the support to establish supporting systems by related governmental organizations. The soft-component scheme is defined as the combination of management support and engineering support types.

2 OBJECTIVES

The objectives of the soft-component are defined as three purposes as listed below.

- (1) To strengthen the capacity of Water Supply Management Board for operation and maintenance of water supply facilities. It aims to establish initial community-based organizations for sustainable water supply services.
- (2) To establish operation and management organizations for community centers, and
- (3) To develop trainers for health and hygiene education. It aims to establish initial community-based organizations to educate proper knowledge and customs related to health and sanitation in communities.

When those objectives are achieved, communities will have safe water supply services and their health and hygiene environment will be improved.

3 BASIC PLAN

3.1 Scope of Works and Output

(1) Scope of Works

The soft-component program aims to establish initial O&M organizations for water supply services and community centers and operation of health and hygiene education. The Zambian side is responsible for improvement of activities and organizations by the communities in the operation stage (after the completion of the project).

In Ng'ombe and Kalikiliki, the health and hygiene education will be collaborated with Primary Health Care (PHC) project implemented by JICA. Initial and follow-up trainings will be coordinated with the PHC project in both UUSs as shown in the following figure.

Collaboration with PHC Project

| Target Areas | During the Project | | | After the Project |
|------------------------|-------------------------|----------------|--------------------|-------------------|
| | Initial Training Course | PHAST Workshop | Follow-up Training | Aftercare |
| Ng'ombe and Kalikiliki | | | | |
| Freedom | | | | |

Legend: Implemented by Japan's Grant Aid Scheme
 Cooperated with PHC Project
 Implemented by the Zambian side

(2) Output

Outputs of the soft-component scheme is defined as the following.

- 1) Capacity building of community
 - To define position and roles of community-based organizations upon the revised rules and regulations,
 - To provide sustainable community-based activities by RDC, and
 - To implement financial management and promotion activities by RDC.
- 2) Strengthening of capability for O&M of water supply services
 - (a) Capacity building for operational skills
 - To secure proper water tariff and its collection ratio,
 - To secure healthy financial systems, and
 - To secure sustainable services.

(b) Capacity building for technical skills

- To acquire skills necessary for the normal operation and inspection,
- To secure stable water supply volume, and
- To secure safe water quality.

3) Strengthening of capability for O&M of community centers

- To continuously utilize the community centers as the spatial base for community-based activities, and
- To establish healthy financial and O&M systems.

4) Strengthening of capability for health and hygiene education

(a) Strengthening of organization

- To establish implementation body formed by RDC, Health Center, Neighborhood Health Committee (NHC), and Community Health Worker (CHW), and
- To establish supporting systems by LCC Public Health Department (PHD), Central Board of Health (CBH), Lusaka Health Management Board (LHMB), and Kafue Health Management Board (KHMB).

(b) Human resource development

- To develop talented persons for trainers from NHC, CHW, and RDC.

3.2 Work Plan

(1) Capacity Building of Community

1) Preparatory works

Preparatory works and supplemental survey will be conducted to collect necessary information for preparation of roles and regulations for RDC and Water Supply Management Board (WSMB). The necessary information includes existing constitution for area-based organizations and other related laws.

2) Discussion and preparation of rules and regulations

Based on the discussions with LCC departments responsible for UUSs, the draft of rules and regulations will be prepared to define the roles and status of RDC and WSMB. The draft rules will specify basic matters for operation of the organizations. Those will include procedures for election and reelection of members and obligation to open account books to the public.

3) Formation of consents on revised rules and regulations

In workshops the draft rules and regulations, which specify the legal status of community-based organizations, will be proposed to make agreement between related organizations.

4) Training and follow-up for RDC

Training for RDC will be conducted to instruct preparation of appraisal to donors, importance of community participation, and necessary knowledge for community-based activities.

5) Instruction and evaluation of community-based activities

In the course of support and instruction for community-based activities, the capacity of RDCs will be evaluated by six aspects consisting of leadership, decision making, meeting, financial management, monitoring/evaluation, and training.

6) Preparation of reports

Evaluation of capacity and establishment of community-based organizations will be compiled in reports which consist of interim reports prepared after the intermediate evaluation and final reports after the final evaluation.

(2) Strengthening of Capability for Operation and Maintenance of Water Supply

1) Establishment of Water Supply Management Board

Roles and necessity of Water Supply Management Board (WSMB) will be explained to beneficiaries of water supply services. Candidates for board members will be selected to establish provisional organizations of WSMB.

2) Workshop for roles and responsibilities by related organizations and persons

Roles of related organizations will be discussed between LCC, LWSC, RDC, and WSMB in workshop. Those roles include definite plans of supports for management by LCC and technical supports by LWSC.

3) Preparation of membership rules (including water tariff and registration fee)

The internal rules of WSMB will specify the membership rules which includes requirements and obligation of registered residents. On the other hand, the membership rules will specify water tariffs and registration fees based on the social survey, which was conducted in the basic design study, and other

existing water supply systems in UUSs. After the discussion with RDC, responsibilities and allowances of the board members will be specified in the internal rules of WSMB.

4) Registration of tap attendants

Based on the WSMB rules, candidates for tap attendants will be advertised in the communities. They will be selected to be capable for operation.

5) Preparation of manuals

(a) Preparation of O&M manual

O&M manual will be prepared to present necessary knowledge and technical skills for the daily operation of water supply facilities by WSMB. It will include necessary activities in the emergency case as tabulated below. The manual will have formats for maintenance reports and inventory of equipment.

Contents of O&M Manual

| Item | Description |
|------------------------------------|---|
| Activities in the normal operation | <ul style="list-style-type: none"> • Mechanism from water intake to water distribution • Water quality inspection and issues to be addressed • Pipe laying works • Maintenance and inspection • Safety measures and security • Maintenance plan • Maintenance report • Inventory of equipment |
| Activities in the emergency case | <ul style="list-style-type: none"> • Communication system in the emergency cases • Initial correspondence |

(b) Preparation of financial management manual

Financial management manual will be prepared to present necessary knowledge. The manual will consist of items, listed in the following table, with illustration.

Contents of Financial Management Manual

| Item | Description |
|----------------------|---|
| Basic data | <ul style="list-style-type: none"> • Statistics and list of registered residents • Estimation of registration ratio • Estimation of unit water consumption per household |
| Financial management | <ul style="list-style-type: none"> • Record of account book • Control of account book • Opening, paying into, pulling down of bank account • Long-term financial plan |

6) Training for operation and maintenance (management part)

Training for management of water supply services will be held for RDC and WSMB by local expert for community development. The training will include organizational management and financial management.

7) Training for operation and maintenance (technical part)

Based on O&M manual, training for maintenance skills will be conducted for RDC and WSMB. Local expert for O&M will hold training with a support from LWSC. The training will include practical training on water facilities in Ng'ombe.

8) Registration of member and employment of security guard

Based on the membership rule, WSMB will register residents willing to receive water supply services and employ security guards to establish initial organization.

9) Follow-up training

Follow-up training will be conducted to strengthen the capacity of RDC and WSMB, focusing on importance and planning methodology of community-participation. The assumed number of trainee is 12 persons for Ng'ombe, 28 persons for Freedom, and 20 persons for Kalikiliki.

10) Monitoring of operation and maintenance

O&M activities will be monitored. Monitoring items will consist of water tariff collection, water supply conditions, working ratio of equipment, financial management, and community participation.

11) Review of organization and manual

Following the monitoring of the O&M activities, review works will be conducted for improvement of financial plans and organizational structures. Manuals for O&M will be also reviewed.

(3) Strengthening of Capability for O&M of Community Center

1) Preparation of organization and operational program

Under the initiative by RDC, operational programs will be prepared for community centers. The programs will consist of provisions for the use of community centers. It will cover community based activities including training of health and hygiene education, RDC meetings, and water tariff collection.

2) Maintenance training and employment of security guard

Based on the O&M manual, the maintenance training will be conducted for RDC. The manual will include the items tabulated below.

Contents of O&M Manual

| Item | Description |
|---------------------------------------|---|
| Items related to maintenance | <ul style="list-style-type: none"> • Schedule management for use • Maintenance and inspection of center building and septic tank • Safety measure and security • Long-term improvement plan |
| Items related to financial management | <ul style="list-style-type: none"> • Records of account book • Control of account book • Opening, paying into, and pulling down of bank account • Long-term financial plan |

RDC will employ security guards to establish O&M organization for the community center.

(4) Strengthening of capability for health and hygiene education

1) Supplemental survey

The latest information will be collected after the commencement of the Project. Items for the supplemental survey are listed in the following table.

Items for Supplemental Survey (Sample)

| Item | Method for Data Collection |
|---|--|
| Personnel layout of implementation bodies | Interviews with LCC Public Health Department, District Health Management Boards, and Health Centers |
| Existing plans and records for health and hygiene education (incl. budget distribution) | Interviews with LCC Public Health Department, District Health Management Board, and Health Centers Plans and records prepared by same organizations |
| Work plan of PHC Project | Interviews with PHC project Plan and record prepared by PHC project |
| Existing teaching materials | Interviews with and acquisition of materials from LCC Public Health Department, District Health Management Board, Health Centers, and PHC project |
| Number of population in target UUSs | Census 2000, LCC statistics, records of health centers |
| Number of trainees | Interviews with RDC and health centers |
| Communities' needs for health and sanitation | Interviews with communities, LCC Public Health Department, District Health Management Board, and Health Centers |
| Trainees' needs for training programs | Interviews with trainees, LCC Public Health Department, District Health Management Board, and Health Centers |

2) Preparation and review of training program

Following the supplemental survey, a detailed training program will be prepared in corporation with LCC Public Health Department, Lusaka Health Management Board, and Kafue Health Management Board. The program will include schedules, training places, trainees of each training course, training

materials, and training topics. After a half year from the commencement of the training, PHAST workshops will be held to evaluate training results and assess the needs of further trainings. Results of the workshops will be brought to the review of the training program in the latter half of the project period.

3) Preparation and review of monitoring method and indicator

Upon discussions with LCC Public Health Department, Lusaka Health Management Board, and Kafue Health Management Board, monitoring methods will be formulated. Those will include indicators and targets of training. After a half year from the commencement of the training, the level of understanding will be evaluated and the monitoring methods be also reviewed for the latter half of the Project.

Monitoring methods and data collection methods are tentatively set up as tabulated below. Those methods will be reviewed after the supplemental survey.

Monitoring Method

| Item | Monitoring Method | Data Collection Method |
|---|---|---|
| Strengthening of knowledge, behaviors, and customs related to health and sanitation | <ul style="list-style-type: none"> • Questionnaire and tests at the commencement and certain period to grasp improved levels of knowledge, behavior, and customs, and • Observation of discussions between trainees in trainings to grasp their knowledge and skills. | <ul style="list-style-type: none"> • Questionnaire and tests, and • Training records by trainers |
| Training of educational methods | <ul style="list-style-type: none"> • Questionnaire and tests (incl. practices) at the commencement and certain period to grasp improved levels, • Observation of discussions between trainees in trainings to grasp their knowledge and skills, • Observation of training by trained residents to communities along with trainers, and • Observation and interviews of residents who receive training by trained residents. | <ul style="list-style-type: none"> • Questionnaire and tests, • Training records by trainers, • Records of trainings conducted for residents, and • Record of comments from trainees to trainers. |
| Strengthening of problem analysis, planning capabilities | <ul style="list-style-type: none"> • Questionnaire and tests at the commencement and certain period to grasp improved levels, • Observation of discussions between trainees in trainings to grasp their knowledge and skills, • Examination of training programs, communities' problems, and other documents prepared by trainees, and • Observation of training by trained residents to communities along with trainers. | <ul style="list-style-type: none"> • Questionnaire and tests, • Training records by trainers, • Examination and documents prepared by trainees, and • Records of trainings conducted for residents. |
| Visits to communities and analysis of reporting systems to related organizations. | <ul style="list-style-type: none"> • Observation of training by trained residents to communities along with trainees, • Records of visits by trained residents to communities, and • Reporting from trained residents to health centers and minutes between both parties. | <ul style="list-style-type: none"> • Records of comments from trainees to trained residents for their visits to communities, • Records of visits by trained residents to communities • Records of trained residents and minutes prepared by health centers |

4) Preparation and review of education materials

A guideline developed by PHC project and the Central Board of Health will be used for the training materials. The guideline is designed for the community health workers and named “Community Health Workers’ Handbook for the Community Health Worker”. One set of the guideline will be distributed to every trainee in the initial training course.

In the soft-component program, the supplemental materials will be prepared for topics particularly related to water and sanitation, if necessary. After a half year of the commencement of the training, the review and revision of the materials will be studied based on the effects of trainings and needs raised by trainees.

The supplemental materials will be prepared to reinforce the contents of the guideline, while the materials follow basic directions of the guideline. Types of the supplemental materials will include hand-outs for easy explanation of the day and leaflet types summarizing several training programs, and reference which will be used by trainees for educating communities people. The materials will be prepared with illustration and written in English plain texts. The illustration will be prepared by artists who have experiences of education materials for health and hygiene. The illustration will be designed to be suitable with local conditions.

5) Workshops of persons in charge of related organizations

Workshop will be held between persons in charge of related organizations and the Japanese side at the commencement of the Project for three days. It aims to establish implementation organizations and confirm directions and plans of health and hygiene education. Participants from the Zambian side will include responsible persons of LCC Public Health Department, Central Board of Health, and Lusaka District Health Management Board, and Kafue District Health Management Board as well as Environmental Health Technician. From the Japanese side, experts of the PHC project will participate the workshop.

Agenda for the workshop will cover three items: i) Confirmation of project implementation systems (including communication systems between related bodies), ii) Confirmation and agreement of plans, and iii) Confirmation and agreement of monitoring method with indicators and targets.

After a half year from the commencement of health and hygiene education, workshop will be held to confirm results of first half and revise training program for the latter half of the project based on the review of planning and monitoring indicators.

6) Initial training

(a) Training period and time for commencement

After the workshops, initial training courses will be held for two weeks in each UUS. In collaboration with PHC project, The initial training will be started from Kalikiliki, followed by Freedom and Ng'ombe.

(b) Trainees

The number of trainees for one training course will be regulated within 20-30 persons to secure efficiency of the training. Therefore same training courses will be held three times in Ng'ombe and Freedom and two times in Kalikiliki. Selection of trainee for each training course will be coordinated to keep well-balance between organizations, such as RDC, NHC, and CHW as well as in terms of gender.

(c) Trainers

Training will be basically led by local expert for health and hygiene education. Environmental Health Technician from health centers will support the training, if necessary. In Kalikiliki, experts of PHC project will participate as trainers, if possible, to collaborate with the PHC project.

(d) Items to be addressed for training method

Participatory method will be adopted for the training method rather than the didactic one to make trainees suggest problems and consider by themselves. According to the training topics, the training methods will employ group discussions, role plays, and preparation of tables, figures, and sketches. Since it is assumed that members of RDC and NHC may not be accustomed to community-based activities, it is necessary to coordinate equality for trainees, especially for female ones, to participate discussions.

Level of attendance, knowledge, and behaviors by trainees will be recorded with changes of those. Questionnaire and tests will be examined for reference of monitoring in the later stages.

(e) Contents of training

Contents of training are tentatively itemized in the following table. Those will be reviewed after the supplemental survey.

Contents of Initial Training Course for Health and Hygiene Education (Draft)

| | | |
|--|--|--|
| Roles of trainers (0.5-1 day) | Recognition of roles as trainers in communities | <ul style="list-style-type: none"> • Objectives and plans of JICA Grant Aid Project, and • Roles and expectation for trainers in the Project (including expected roles after the project) |
| Knowledge for health and hygiene (5-6 days) | Relation between environment and diseases | <ul style="list-style-type: none"> • Influence from environment to health, and • Prevention and infection routes of diseases |
| | Hygiene and proper use of water | <ul style="list-style-type: none"> • Selection of water resources, • Intake from the water resources, • Keeping of water, • Proper treatment of water, and • Use of receptacles for water. |
| | Proper use of toilet | <ul style="list-style-type: none"> • Cases in which hand wash is necessary and proper ways of hand washes in each case |
| | Proper use of sanitation facilities(toilets) | <ul style="list-style-type: none"> • More ideal sanitation facilities, and • More proper use of existing sanitation facilities. |
| | Cleaning and preparation of living environment including water resources and sanitation facilities | <ul style="list-style-type: none"> • Maintenance of water resources, • Maintenance of sanitation facilities, • Proper cleaning of houses, and • Proper treatment of solid waste. |
| | Establishment of customs concerned with hygiene | <ul style="list-style-type: none"> • Review of living customs, and • Means concerned with water and hygiene in general living customs (including review of working time and expenditure distribution) |
| Knowledge and skills to educate communities (1-2 days) | Communication skills | <ul style="list-style-type: none"> • Way for conversation with communities, • Picking up of needs from the communities, and • Recognition of importance for community participation and promotion method. |
| | Education method | <ul style="list-style-type: none"> • Methods for educating communities, • Use of teaching materials, • Correspondences to request by communities, and • Creating consciousness to exercise proper knowledge. |
| | Evaluation method for results of education | <ul style="list-style-type: none"> • Observation of responses by communities, and • Record of education activities to the communities. |
| Analysis of current situation and problems and planning skills (1-2 days) | Investigation of current situation in communities and its analysis | <ul style="list-style-type: none"> • Understanding of problems in communities, and • Proper records of problems. |
| | Procedure for planning and its rearrangement | <ul style="list-style-type: none"> • Proper procedures and consideration from the understanding of current situation to planning • Compilation of plans into documents. |
| Visits to communities and corporation with related organizations (1 day) | Consultation with residents and visits to communities | <ul style="list-style-type: none"> • Response to request of consultation from communities, • Proper timing for family visit, and • Necessary survey items and methods for family visit. |
| | Corporation with health centers | <ul style="list-style-type: none"> • Understanding of health administration systems in responsible areas, • Corporation with health centers and related organizations, and • Records and report of activities to the related organizations. |

7) Follow-up Training and PHAST Workshop

(a) Training period and time for training

After the initial training courses, follow-up training will be held every month in each UUS. Duration of each follow-up training will be principally three days which may be arranged with the level of understanding by trainees and topics of the training.

(b) Trainees

The number of trainees for one training course will be regulated within 20-30 persons, similar to the initial training. Therefore, trainees will be divided into groups to secure that every trainee receives the follow-up training.

(c) Trainers

Training will be basically facilitated by a local expert for health and hygiene education. Environmental Health Technicians will support the training, if necessary. In Ng'ombe and Kalikiliki where the training will be collaborated with the PHC project, experts of the PHC project will assist the training, if possible.

The local expert, who will conduct the training, will go around the communities to give consultation to trainees and attend education by trainees to residents on the days when the follow-up training is not scheduled.

(d) Training method

Similar to the initial training, the participatory method will be adopted for the follow-up training rather than didactic one to encourage suggestion and discussions by trainees.

In UUSs, drama groups take efforts to educate health and hygiene behaviors through dramas which have advantages to increase interests of communities and be kept in their minds. Therefore the follow-up training will be arranged to include one or two drama programs in each UUS during the whole project period.

In the course of the trainings, the trainers will record the sense of participation and the changes of behaviors and knowledge of trainees. The questionnaire and check-tests will be conducted to prepare the reference to be reviewed in the later stages. In the On-job training, trainers will record situation how trainees educate residents.

(e) Training programs

Training themes will be arranged to reflect results of the initial training and following activities. In the first half of the project period, the training will focus on improvement of knowledge for health and hygiene. In the latter half, it will be shifted to the education methods. Particularly in the later stages of the follow-up training, training programs will be focused on improvement of capability for trainers and sense of community participation so that trainees will continuously educate communities as trainers after the Project.

(f) PHAST workshop

After a half year of the commencement of the training, PHAST workshop will be held in each UUS. The workshop aims to evaluate results of activities and examine needs assessment for the later stages.

Since the PHC project will held the PHAST workshop in the similar time in Kalikiliki, the workshop may be jointly held, if possible. On the other hand, the PHAST workshop by the Japan's Grant Aid Scheme aims to evaluate results of the first half in the Project. Therefore both projects may separately held the workshops, if the evaluation is not secured.

The PHAST workshop will be held for four days once in each UUS. Main contents of the workshop will be evaluation and needs assessments.

The number of attendants will be around 20 persons from each UUS. In principle, attendances will mainly consist of trainees, such as RDC, NHC, and CHW. It will be allowed to include residents out of trainees, if their opinions are necessary for needs assessment. Apart from the local experts employed for the Project, experts, who are experienced in the moderator, will be temporarily employed as moderators for the workshops. Furthermore assistant moderator may be assigned, if necessary. Observers will be invited from LCC Public Health Department and District Health Management Board, if necessary.

8) Examination of health and hygiene education to residents and its monitoring

Health and hygiene education for communities will be examined by the trainees of RDC, NHC, and CHW. Those examination will be monitored based on the monitoring items and indicators set in advance.

9) Preparation of revised plan

Based on the results of the monitoring for the examination, the training programs and operation bodies will be reviewed. The review works will cover the methodology, period, and contents of the training programs.

2.3 Work Schedule

Soft-component scheme will be commenced at the same time of commencement of construction works. The project period will be 15 months (refer to the following figure).

In parallel with revision works of rules and regulations for community-based organizations, the program will be conducted for the capacity building of RDC and the establishment of Water Supply Management Board. Following those activities, the training will be shifted to financial training and O&M training which will be coordinated with construction period of public taps. Among three target areas, water supply facilities will be firstly completed in Ng'ombe. Those facilities will be used for training of other two target areas.

Health and hygiene education will be given the priority to the initial training in Freedom which is excluded from the PHC project. Following the training in Freedom, the initial training will be held in Kalikiliki and Ng'ombe, respectively. After a half year of the initial training, the PHAST workshop will be held and the training programs will be shifted to the On-job training in which trained residents (trainees) will educate residents in communities as trainers.

Work Schedule for Soft-Component

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---------------------|--|--|--|------------------|--|-----------------------------|--|--|-----------------------|---|--|---|---|----|----|----|
| Implementation Item | Establishment & strengthening of people's organization | [Task Box] | | | [Task Box] | Training of RDC / Follow-up | | | | [Task Box] | | Instruction on activities and evaluation of ability | | | | |
| | O&M of Water Supply System | Establishment of water users' group | | [Task Box] | Consensus among relevant organizations Preparation of regulation | | | [Task Box] | Training on O&M | | Monitoring & evaluation and revision of O&M system | | | | | |
| | O&M of community center | [Task Box] | Preparation of management system and operation program | | | | | [Task Box] | Preparation of manual | | | | | | | |
| | Health and hygiene education | Preparation of training program, monitoring method and indicators, an supplemental teaching material | | | Initial training | | [Task Box] | Follow-up training (Revision of training plan, monitoring method/indicators, supplemental teaching material) | | | | | Implementation of helath education to community people and monitoring | | | |
| Ng'ombe | | | | Initial training | | [Task Box] | Follow-up training (Revision of training plan, monitoring method/indicators, supplemental teaching material) | | | | | Implementation of helath education to community people and monitoring | | | | |
| Kalikiiki | | | | Initial training | | [Task Box] | Follow-up training (Revision of training plan, monitoring method/indicators, supplemental teaching material) | | | | | Implementation of helath education to community people and monitoring | | | | |
| Freedom | | Initial training | | [Task Box] | Follow-up training (Revision of training plan, monitoring method/indicators, supplemental teaching material) | | | | | Implementation of helath education to community people and monitoring | | | | | | |

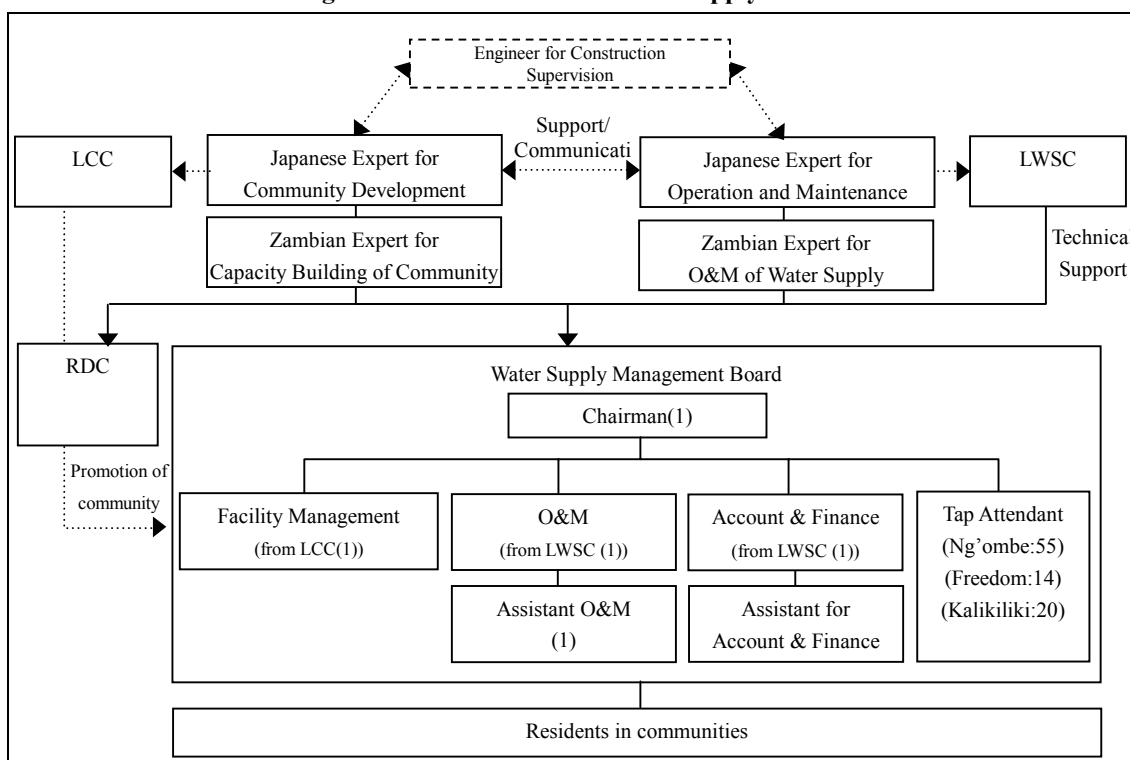
2.4 Implementation Organization

(1) Water Supply System

Each expert will support and communicate with a residential engineers for construction to support WSMB and RDC.

Zambian expert for O&M will conduct technical instruction for O&M of water supply facilities under supervision by Japanese expert for O&M and with support by LWSC. On the other hand, Zambian expert for capacity building will implement financial management training and establishment of WSMB under supervision by Japanese expert for community development. LCC will support for collaboration with WSMB and RDC which is responsible to promote communities.

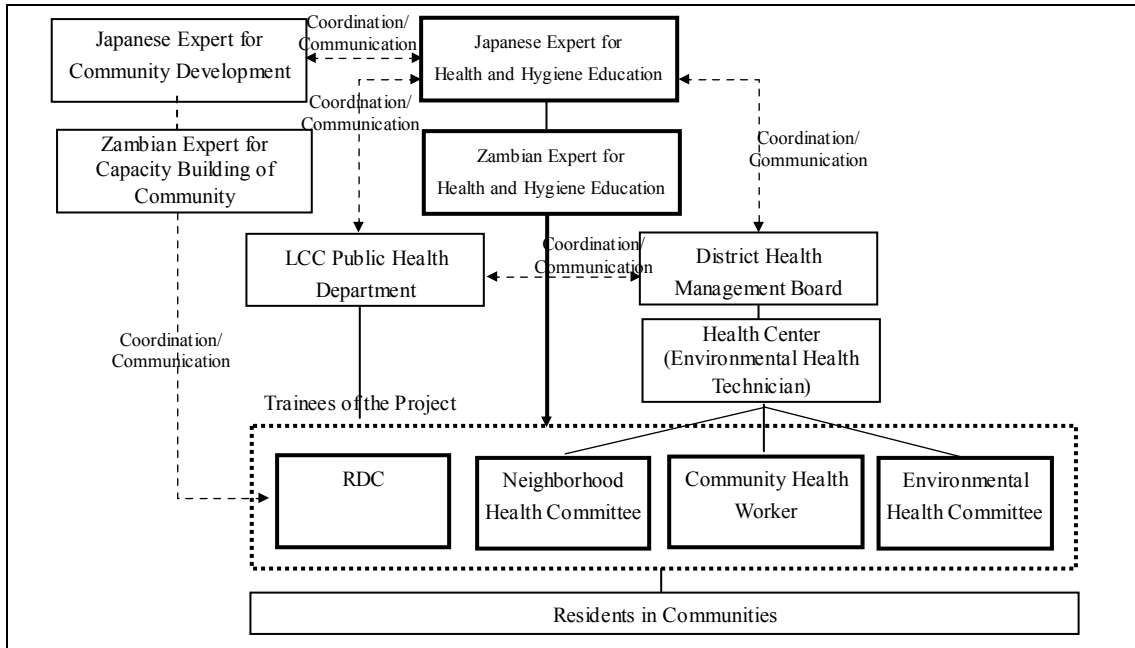
Organization for O&M for Water Supply Services



(2) Health and Hygiene Education

LCC Public Health Department (PHD) will take in charge of main counter part for the health and hygiene education. PHD will form close supporting systems with Lusaka District Health Management Board. Furthermore Environmental Health Technicians will support in Ng'ombe and Kalikiliki. In Freedom which is under jurisdiction of Chilanga Health Center, the training will be supported by Kafue District Health Management Board (refer to the following figure).

Organization for Health and Hygiene Education



- 1) Lusaka District Health Management Board: Ng’ombe and Kalikiliki UUSs
Kafue District Health Management Board: Freedom UUSs
- 2) Mtendele Health Center: Kalikiliki UUS
Chilanga Health Center: Freedom UUS

2.5 Roles of Each Expert

Activities of each expert is summarized in the following table.

Roles of Each Expert

| Expert | Activities |
|---|---|
| Japanese expert for Community development | <ul style="list-style-type: none"> • Supervision for progress of soft-component scheme, • Preparation of revised rules and regulations, • Coordination of roles between Water Supply Management Board, RDC, and other related organizations, • Preparation of plan for capacity building of RDC and Water Supply Management Board, • Preparation of manual and training program for financial management, and • Supervision of training for financial management. |
| Zambian expert for Capacity building of community | <ul style="list-style-type: none"> • Monitoring and instruction of procedures for revised rules and regulations, • Monitoring and instruction for establishment Water Supply Management Board and RDC, • Execution of plan for capacity building of RDC, • Preparation of financial management manual, and • Execution of training for financial management. |
| Japanese expert for Operation and maintenance of water supply | <ul style="list-style-type: none"> • Support for establishment of Water Supply Management Board, • Preparation of training program for O&M, • Supervision of O&M manual, and • Supervision of training for O&M. |
| Zambian expert for Operation and maintenance of water supply | <ul style="list-style-type: none"> • Monitoring and instruction for establishment of Water Supply Management Board, • Preparation of manual for operation and maintenance, and • Execution of training related to operation and maintenance. |
| Japanese expert for Health and hygiene education | <ul style="list-style-type: none"> • Coordination and formation of supporting system by related organizations, • Preparation of detailed plan for health and hygiene education, • Preparation of monitoring and evaluation methods, • Supervision of training materials and manuals, • Supervision of training for health and hygiene education, and • Review of detailed plans and manuals. |
| Zambian expert for Health and hygiene education | <ul style="list-style-type: none"> • Monitoring and instruction of supporting systems by related organizations, • Preparation of training materials and manuals, • Execution of training for health and hygiene education, and • Execution of monitoring and evaluation. |

2.6 Contents and Outputs of Each Program

Contents and outputs of each program are summarized in the following tables.

Contents and Outputs of the Soft Component (Strengthening of Community-based Organizations)

| Item | Related Organization | Objective | Output | Input |
|--|--|--|--|---|
| 1) Preparation of regulations and rules | <ul style="list-style-type: none"> • LCC | <ul style="list-style-type: none"> • Legal status of WSMB and RDC will be clarified. | <ul style="list-style-type: none"> • Draft regulations and rules | <ul style="list-style-type: none"> • Japanese expert for community development |
| 2) Workshop with the organizations concerned | <ul style="list-style-type: none"> • LCC • LWSC • RDC | <ul style="list-style-type: none"> • Legal status of WSMB and RDC will be agreed by related organizations in accordance with the draft regulations and rules. | <ul style="list-style-type: none"> • Draft regulations and rules • Agreement documents | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |

Contents and Outputs of the Soft Component (O&M of Water Supply Systems) (1/2)

| Item | Related Organization | Objective | Output | Input |
|---|--|---|---|---|
| 1) Establishment of WSMB | | | | |
| a) Training for the concerned organization | <ul style="list-style-type: none"> • RDC • WSMB | <ul style="list-style-type: none"> • Necessity and methodology of community participation will be understood. | <ul style="list-style-type: none"> • Manual for community participation | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| b) Clarification of responsibility and role of the concerned organization and persons in charge | <ul style="list-style-type: none"> • LCC • LWSC • RDC • WSMB | <ul style="list-style-type: none"> • Role of concerned organizations and persons in charge will be clarified. • Correspondence to normal condition and malfunction will be clarified. | <ul style="list-style-type: none"> • Organization chart • Demarcation of roles and responsibilities | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| c) Preparation of role and allowance for WSMB | <ul style="list-style-type: none"> • RDC • WSMB | <ul style="list-style-type: none"> • Responsibility among WSMB members will be clarified. • Allowance for WSMB members will be set up. | <ul style="list-style-type: none"> • Internal rules of WSMB • Allowance for WSMB members | <ul style="list-style-type: none"> • Zambian expert for capacity building |
| d) Preparation of membership rules | <ul style="list-style-type: none"> • RDC • WSMB | <ul style="list-style-type: none"> • Requisites and obligations for membership will be clarified. • Promotion system will be established to increase registration ratio. | <ul style="list-style-type: none"> • Members rules • Brochure for promotion | <ul style="list-style-type: none"> • Zambian expert for capacity building |
| d) Setting up water charges and registration fee | <ul style="list-style-type: none"> • RDC • WSMB | <ul style="list-style-type: none"> • Water fees will be properly set up. | <ul style="list-style-type: none"> • Water charges • Water charge collection method | <ul style="list-style-type: none"> • Zambian expert for capacity building |

Contents and Outputs of the Soft Component (O&M of Water Supply Systems) (2/2)

| Item | Related Organization | Objective | Output | Input |
|---|--|---|---|---|
| 2) Training on Financial Management | | | | |
| a) Preparation of financial management manual | <ul style="list-style-type: none"> • LCC • LWSC | <ul style="list-style-type: none"> • WSMB will prepare and implement financial plan. • WSMB will obtain adequate knowledge for financial management. | <ul style="list-style-type: none"> • Account book • Manual for bank account • Long-term financial plan | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| b) Training for financial management | <ul style="list-style-type: none"> • RDC • WSMB • LWSC • LCC | <ul style="list-style-type: none"> • WSMB will prepare and implement financial plan. • WSMB will obtain adequate knowledge for financial management, as listed below. <ul style="list-style-type: none"> - Management of account book - Management of bank account - Preparation of long-term financial management plan | <ul style="list-style-type: none"> • Monitoring record • Evaluation report of training | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| 3) Training on Operation and Maintenance | | | | |
| a) Preparation of operation and maintenance manual | <ul style="list-style-type: none"> • LWSC | <ul style="list-style-type: none"> • WSMB will prepare and implement financial plan. • WSMB will obtain adequate knowledge for financial management. | <ul style="list-style-type: none"> • O&M manual • O&M plan • O&M report • Inventory document of equipment | <ul style="list-style-type: none"> • Japanese expert for O&M • Zambian expert for O&M |
| b) Training for operation and maintenance | <ul style="list-style-type: none"> • RDC • WSMB • LWSC | <ul style="list-style-type: none"> • WSMB will prepare and implement O&M plan. • WSMB will obtain adequate knowledge for O&M, as listed below. <ul style="list-style-type: none"> - Mechanism of intake and water distribution - Water quality tests and necessary precaution - Method of piping - Inspection and maintenance - Safety and security | <ul style="list-style-type: none"> • Monitoring report • Evaluation report of training | <ul style="list-style-type: none"> • Japanese expert for O&M • Zambian expert for O&M |
| 4) Registration of users and employment of security guard | <ul style="list-style-type: none"> • RDC • WSMB | <ul style="list-style-type: none"> • User list will be prepared. • Initial operation system will be formulated. | <ul style="list-style-type: none"> • List of users • List of staffs | <ul style="list-style-type: none"> • Zambian expert for O&M |
| 5) Review of training plan | <ul style="list-style-type: none"> • RDC • WSMB • LCC • LWSC | <ul style="list-style-type: none"> • Manuals and other relevant documents will be improved to be more practical. | <ul style="list-style-type: none"> • Revised manual • Revised rules/regulations • Revised relevant documents | <ul style="list-style-type: none"> • Japanese expert for O&M • Zambian expert for O&M |

Contents and Output of the Soft Component (O&M of Community Centers)

| Item | Related Organization | Objective | Output | Input |
|---|---|--|--|---|
| 1) Establishment of Operation and Maintenance system | | | | |
| a) Preparation of management system and operation program | <ul style="list-style-type: none"> • RDC • LCC | <ul style="list-style-type: none"> • Utilization of the center will be clarified | <ul style="list-style-type: none"> • Schedule of utilization • Definition of activities | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| b) Workshop with concerned organizations | <ul style="list-style-type: none"> • LCC • LWSC • RDC | <ul style="list-style-type: none"> • Role of related organizations and persons in charge will be clarified. | <ul style="list-style-type: none"> • Organization chart • Task demarcation | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| c) Clarification of organizational structure and role demarcation | <ul style="list-style-type: none"> • RDC | <ul style="list-style-type: none"> • Responsibility of RDC members will be clarified. | <ul style="list-style-type: none"> • Internal rules of RDC | <ul style="list-style-type: none"> • Zambian expert for capacity building |
| 2) Training on Operation and Maintenance | | | | |
| a) Training for financial management | <ul style="list-style-type: none"> • RDC • LCC | <ul style="list-style-type: none"> • WSMB will prepare and implement financial plan. • WSMB will obtain adequate knowledge for financial management. | <ul style="list-style-type: none"> • Manual of financial management • Financial management plan • Account book • Manual for bank account | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |
| b) Training on operation and maintenance | <ul style="list-style-type: none"> • RDC • WSMB • LWSC | <ul style="list-style-type: none"> • RDC will prepare and implement O&M plan. • RDC will obtain adequate knowledge for O&M. | <ul style="list-style-type: none"> • O&M manual • O&M plan • Monitoring record • Evaluation report of training | <ul style="list-style-type: none"> • Japanese expert on community development • Zambian expert for capacity building |
| 3) Employment of staff | <ul style="list-style-type: none"> • RDC | <ul style="list-style-type: none"> • Initial operation system will be formulated. | <ul style="list-style-type: none"> • List of staffs | <ul style="list-style-type: none"> • Zambian expert for capacity building |
| 4) Review of training plan | <ul style="list-style-type: none"> • RDC • LCC • LWSC | <ul style="list-style-type: none"> • Manuals and other relevant documents will be improved to be more practical. | <ul style="list-style-type: none"> • Revised manual • Revised rules/regulation • Revised relevant documents | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for capacity building |

Contents and Output of the Soft Component (Health and Hygiene Education)

| Item | Related Organization | Objective | Output | Input |
|---|--|--|--|--|
| 1) Activities for Overall Implementation Framework | | | | |
| a) Preparation and revision of detail training plan | <ul style="list-style-type: none"> • DHMB • LCC | <ul style="list-style-type: none"> • Training method for trainers will be established. • Supporting system for health and hygiene education will be established. | <ul style="list-style-type: none"> • Detail training plan | <ul style="list-style-type: none"> • Japanese expert for health and hygiene education |
| b) Establishment of Monitoring method and indicators | <ul style="list-style-type: none"> • DHMB • LCC | <ul style="list-style-type: none"> • Methods for measurement and review of training will be established. | <ul style="list-style-type: none"> • Monitoring plan | <ul style="list-style-type: none"> • Japanese expert for health and hygiene education |
| c) Preparation of supplemental teaching material | <ul style="list-style-type: none"> • CBH • DHMB | <ul style="list-style-type: none"> • Training method for trainers will be established. | <ul style="list-style-type: none"> • Manual for training of trainers • Supplemental education material | <ul style="list-style-type: none"> • Japanese expert for health and hygiene • Zambian expert for health and hygiene |
| d) Workshop of the person in charge from relevant organizations | <ul style="list-style-type: none"> • CBH • DHMB • Health Center • LCC • RDC | <ul style="list-style-type: none"> • Role and responsibility of the related organization will be clarified. • Supporting system for health and hygiene education will be agreed between related organizations. | <ul style="list-style-type: none"> • Organization chart • Task demarcation | <ul style="list-style-type: none"> • Japanese expert for health and hygiene • Zambian expert for health and hygiene |
| 2) Initial training | <ul style="list-style-type: none"> • RDC • Health Center | <ul style="list-style-type: none"> • Trainers will obtain knowledge on health and hygiene. • Trainers will understand how to educate community people. | <ul style="list-style-type: none"> • Training report • Monitoring record | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for health and hygiene |
| 3) Follow-up training | <ul style="list-style-type: none"> • RDC • Health Center | <ul style="list-style-type: none"> • Trainers will understand how to educate community people. | <ul style="list-style-type: none"> • Evaluation report of training • Monitoring record | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for health and hygiene |
| 4) PHAST workshop | <ul style="list-style-type: none"> • RDC • Health Center | <ul style="list-style-type: none"> • Knowledge on health and hygiene will be improved. | <ul style="list-style-type: none"> • Training report | <ul style="list-style-type: none"> • Japanese expert for community development • Zambian expert for health and hygiene |

2.7 Inputs

Based on lessons from the water supply project in George (Japan Grant Aid project) and pilot projects of the JICA Master Plan Study, experts will be assigned for the soft-components program as listed below.

- Three Japanese experts for the community development, the water supply operation and maintenance, and health and hygiene education,
- Three Zambian experts for capacity building of communities, operation and maintenance, and health and hygiene education,
- The Japanese experts will be assigned at the commencement and completion of the Project, and

- A Japanese expert for community development will be assigned to supervise and instruct progress of the soft-component at the time when the water supply services are commenced and the PHAST workshops are held.

Total amount of the soft-component program is estimated at 44 million Japanese Yen.

Input of Soft-component Scheme

| Item | Local Currency (US\$) | Japanese Yen (1,000JPY) |
|------------------------------|---------------------------------|----------------------------|
| 1. Direct expense | 116,700 | 11,521 |
| 2. Direct personnel expenses | - | 7,771 |
| 3. Indirect expenses | - | 10,879 |
| Sub-total | 116,700 (14,121thousand JPY) | 30,172 |
| Total Amount | 44,292 (thousand JPY) | |

Work Schedule of Soft-Component (monthly)

| | | Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|--|------------------|-------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1 Construction | Extension of E/N | | | | ▽ | | | | | | | | | | | | |
| (1) Water Supply Facilities | Ng'ombe | | | | | | | | | | | | | | | | |
| | Kalikiliki | | | | | | | | | | | | | | | | |
| | Freedom | | | | | | | | | | | | | | | | |
| (2) Community Centers | Ng'ombe | | | | | | | | | | | | | | | | |
| | Kalikiliki | | | | | | | | | | | | | | | | |
| | Freedom | | | | | | | | | | | | | | | | |
| 2 Soft-Component | | | | | | | | | | | | | | | | | |
| 2.1 Capacity Building of Community | | | | | | | | | | | | | | | | | |
| (1) Discussion & Preparations of Rules and Regulations | | | | | | | | | | | | | | | | | |
| (2) Formaton of Consents on Revised Rules and Regulations | | | ▽ | | | | | | | | | | | | | | |
| (3) Training and Follow-up for RDC | | | | | | | | | | | | | | | | | |
| (4) Instruction and Evaluation of Community-based Activities | | | | | | | | | | | | | | | | | |
| (6) Preparation of Interim Report | | | | | | | | | | | | | | | | | |
| (7) Preparation of Final Report | | | | | | | | | | | | | | | | | |
| 2.2 Strengthening of Capability for Operation and Maintenance of Water Supply | | | | | | | | | | | | | | | | | |
| (1) Establishment of Water Supply Management Board | | | | | | | | | | | | | | | | | |
| (2) Workshop for roles and responsibilities by related organizations and persons | | | | | | | | | | | | | | | | | |
| (3) Preparation of membership rules (including water tariff and registration fee) | | | | | | | | | | | | | | | | | |
| (4) Registration of Tap Attendants | | | | | | | | | | | | | | | | | |
| (5) Preparation of Manuals | | | | | | | | | | | | | | | | | |
| (6) Training for Operation and Maintenance (Management Part) | | | | | | | | | | | | | | | | | |
| (7) Training for Operation and Maintenance (Technical Part) | | | | | | | | | | | | | | | | | |
| (8) Registration of Member and Employment of Security Guard | | | | | | | | | | | | | | | | | |
| (9) Follow-up Training | | | | | | | | | | | | | | | | | |
| (10) Monitoring of Operation and Maintenance | | | | | | | | | | | | | | | | | |
| (11) Review of Organization and Manual | | | | | | | | | | | | | | | | | |
| 2.2 Strengthening of Capability for Operation and Maintenance of Community Center | | | | | | | | | | | | | | | | | |
| (1) Preparation of Organization and Operational Program | | | | | | | | | | | | | | | | | |
| (2) Maintenance Training and Employment of Security Guard | | | | | | | | | | | | | | | | | |
| 2.3 Strengthening of Capability for Health and Hygiene Education | | | | | | | | | | | | | | | | | |
| (1) Supplemental Survey | | | | | | | | | | | | | | | | | |
| (2) Preparation and Review of Training Program | | | | | | | | | | | | | | | | | |
| (3) Preparation and Review of Monitoring Method and Indicator | | | | | | | | | | | | | | | | | |
| (4) Preparation and Review of Supporting Materials | | | | | | | | | | | | | | | | | |
| (5) Workshops of Persons in Charge of Related Organizations | | | | | | | | | | | | | | | | | |
| (6) Initial Training | | | | | | | | | | | | | | | | | |
| (7) Follow-up Training | | | | | | | | | | | | | | | | | |
| (8) PHAST Workshop | | | | | | | | | | | | | | | | | |
| (8) Examination of Health and Hygiene Education to Residents and its monitoring | | | | | | | | | | | | | | | | | |
| (9) Preparation of Revised Plan | | | | | | | | | | | | | | | | | |

Assignment Schedule of Experts

| | Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | M/M | | No. of Trips | |
|---|-------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----------------|--------------|------------|
| | | | | | | | | | | | | | | | | | Japanese Expert | Zambian Expert | | |
| Expert | | | | | | | | | | | | | | | | | | | | |
| Japanese expert for Community development | | | | | | | | | | | | | | | | | | 5.0 | | 3.0 |
| Japanese Expert for Operation and Maintenance of Water Supply | | | | | | | | | | | | | | | | | | 3.0 | | 2.0 |
| Japanese Expert for Health and Hygiene Education | | | | | | | | | | | | | | | | | | 1.5 | | 1.0 |
| Zambian Expert for Capacity Building of Community | | | | | | | | | | | | | | | | | | | | 4.0 |
| Zambian Expert for Operation and Maintenance of Water Supply | | | | | | | | | | | | | | | | | | | | 7.5 |
| Zambian Expert for Health and Hygiene Education | | | | | | | | | | | | | | | | | | | | 14.0 |
| Total | | | | | | | | | | | | | | | | | | 9.5 | 25.5 | 6.0 |

Work Schedule of Soft-Component Scheme (weekly)

| Month | Week | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| 1 Construction | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) Water Supply Facilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Community Centers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Soft-Component | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.1 Capacity Building of Community | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) Preparatory Work | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Discussion & Preparation of Rules and Regulations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (3) Formation of Consents on Revised Rules and Regulations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (4) Training and Follow-up for RDC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (5) Instruction and Evaluation of Community-based Activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (6) Preparation of Interim Report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Preparation of Final Report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2 Strengthening of Capability for Operation and Maintenance of Water Supply | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ng'ombe (1) Establishment of Water Supply Management Board | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Workshop for roles and responsibilities by related organizations and persons | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (3) Preparation of membership rules (including water tariff and registration fee) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (4) Registration of Tap Attendants | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (5) Preparation of Manuals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (6) Training for Operation and Maintenance (Management Part) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Training for Operation and Maintenance (Technical Part) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (8) Registration of Member and Employment of Security Guard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (9) Follow-up Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (10) Monitoring of Operation and Maintenance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (11) Review of Organization and Manual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalkikiki (1) Establishment of Water Supply Management Board | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Workshop for roles and responsibilities by related organizations and persons | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (3) Preparation of membership rules (including water tariff and registration fee) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (4) Registration of Tap Attendants | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (5) Preparation of Manuals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (6) Training for Operation and Maintenance (Management Part) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Training for Operation and Maintenance (Technical Part) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (8) Registration of Member and Employment of Security Guard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (9) Follow-up Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (10) Monitoring of Operation and Maintenance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (11) Review of Organization and Manual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Freedom (1) Establishment of Water Supply Management Board | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Workshop for roles and responsibilities by related organizations and persons | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (3) Preparation of membership rules (including water tariff and registration fee) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (4) Registration of Tap Attendants | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (5) Preparation of Manuals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (6) Training for Operation and Maintenance (Management Part) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Training for Operation and Maintenance (Technical Part) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (8) Registration of Member and Employment of Security Guard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (9) Follow-up Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (10) Monitoring of Operation and Maintenance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (11) Review of Organization and Manual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2 Strengthening of Capability for Operation and Maintenance of Community Center | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) Preparation of Organization and Operational Program | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Maintenance Training and Employment of Security Guard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.3 Strengthening of Capability for Health and Hygiene Education | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) Supplemental Survey | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Preparation and Review of Training Program | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (3) Preparation and Review of Monitoring Method and Indicator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (4) Preparation and Review of Supporting Materials | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (5) Workshops of Persons in Charge of Related Organizations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ng'ombe (6) Initial Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Follow-up Training and PHAST Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (8) Examination of Health and Hygiene Education to Residents and its monitoring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalkikiki (6) Initial Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Follow-up Training and PHAST Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (8) Examination of Health and Hygiene Education to Residents and its monitoring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Freedom (6) Initial Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) Follow-up Training and PHAST Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (8) Examination of Health and Hygiene Education to Residents and its monitoring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (9) Preparation of Revised Plan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Assignment Schedule of Experts

| Expert | Month | Week | 15 | | | | | | | | | | | | | | | M/M | Zambian | No. of Trips |
|---|-------|------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---------|--------------|
| | | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | | | |
| Japanese expert for Community development | | | | | | | | | | | | | | | | | | | | 3.0 |
| Japanese expert for Operation and Maintenance of Water Supply | | | | | | | | | | | | | | | | | | | | 5.0 |
| Japanese expert for Health and Hygiene Education | | | | | | | | | | | | | | | | | | | | 3.0 |
| Zambian Expert for Capacity Building of Community | | | | | | | | | | | | | | | | | | | | 1.5 |
| Zambian Expert for Operation and Maintenance of Water Supply | | | | | | | | | | | | | | | | | | | | 4.0 |
| Zambian Expert for Health and Hygiene Education | | | | | | | | | | | | | | | | | | | | 7.5 |
| Total | | | | | | | | | | | | | | | | | | | | 9.5 |
| | | | | | | | | | | | | | | | | | | | | 25.5 |
| | | | | | | | | | | | | | | | | | | | | 6.0 |

ANNEX8 SOCIAL SURVEY

| Q2f Total household size | Name of Settlement | | | | | |
|--------------------------|--------------------|--------------|------------|--------------|------------|--------------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| 1 | 5 | 1.3 | 11 | 2.8 | 8 | 2.0 |
| 2 | 21 | 5.3 | 30 | 7.5 | 22 | 5.5 |
| 3 | 50 | 12.5 | 46 | 11.5 | 46 | 11.5 |
| 4 | 61 | 15.3 | 56 | 14.0 | 57 | 14.3 |
| 5 | 72 | 18.0 | 66 | 16.5 | 61 | 15.3 |
| 6 | 62 | 15.5 | 65 | 16.3 | 70 | 17.5 |
| 7 | 52 | 13.0 | 48 | 12.0 | 47 | 11.8 |
| 8 | 29 | 7.3 | 39 | 9.8 | 26 | 6.5 |
| 9 | 26 | 6.5 | 20 | 5.0 | 23 | 5.8 |
| 10 | 13 | 3.3 | 11 | 2.8 | 22 | 5.5 |
| 11 | 4 | 1.0 | 4 | 1.0 | 6 | 1.5 |
| 12 | 2 | .5 | 3 | .8 | 5 | 1.3 |
| 13 | 2 | .5 | 1 | .3 | 1 | .3 |
| 14 | | | | | 2 | .5 |
| 15 | 1 | .3 | | | 3 | .8 |
| 16 | | | | | 1 | .3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Average Household Sise | 5.6050 | | 5.4600 | | 5.8375 | |
| SD | 2.3081 | | 2.3264 | | 2.6512 | |

Source: Social Conditions Survey Field Data

| □□ | Name of Settlement | | | | | |
|--|--------------------|--------------|-------------|--------------|-------------|--------------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q3 How many years have you lived here? | | | | | | |
| Less than a year | 49 | 12.3 | 58 | 14.5 | 49 | 12.3 |
| 1 -5 years | 147 | 36.8 | 134 | 33.5 | 96 | 24.0 |
| More than 5 years | 183 | 45.8 | 194 | 48.5 | 239 | 59.8 |
| Don t know | 21 | 5.3 | 14 | 3.5 | 16 | 4.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q4 How much is your household monthly income? | | | | | | |
| Not stated | 37 | 9.3 | 21 | 5.3 | 30 | 7.5 |
| Below K50,000 | 11 | 2.8 | 26 | 6.5 | 33 | 8.3 |
| K51,000 +K100,000 | 62 | 15.5 | 52 | 13.0 | 82 | 20.5 |
| K101,000 - K150,000 | 83 | 20.8 | 75 | 18.8 | 51 | 12.8 |
| K151,000 - K200,000 | 66 | 16.5 | 69 | 17.3 | 42 | 10.5 |
| K201,000 - K250,000 | 39 | 9.8 | 48 | 12.0 | 35 | 8.8 |
| K251,000- K300,000 | 40 | 10.0 | 35 | 8.8 | 45 | 11.3 |
| Above K300,000 | 62 | 15.5 | 74 | 18.5 | 82 | 20.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Average income per Household-(ZK) | 282,612.875 | | 272,635.250 | | 291,243.303 | |
| Standard Diviation (SD) | 284,865.641 | | 203,113.363 | | 391,976.485 | |
| Q5 Expenditure | | | | | | |
| Average expenditure/Household-ZK | 341502.2 | | 276640.7 | | 275948.5 | |
| Standard Diviation (SD) | 631918.6 | | 158428.1 | | 172781.7 | |

Source: Social Conditions Survey Field Data

| Q6 What assets/property do you have <input type="checkbox"/> <input type="checkbox"/> | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Plot of land | | | | | | |
| No | 349 | 87.3 | 345 | 86.3 | 356 | 89.0 |
| Yes | 51 | 12.8 | 55 | 13.8 | 44 | 11.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| House | | | | | | |
| No | 204 | 51.0 | 243 | 60.8 | 218 | 54.5 |
| Yes | 196 | 49.0 | 157 | 39.3 | 182 | 45.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Livestock | | | | | | |
| No | 390 | 97.5 | 383 | 95.8 | 387 | 96.8 |
| Yes | 10 | 2.5 | 17 | 4.3 | 13 | 3.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Savings | | | | | | |
| No | 380 | 95.0 | 387 | 96.8 | 382 | 95.5 |
| Yes | 20 | 5.0 | 13 | 3.3 | 18 | 4.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Jewellery (gold, etc) | | | | | | |
| No | 399 | 99.8 | 400 | 100.0 | 400 | 100.0 |
| Yes | 1 | .3 | | | | |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Machine/ instrument for work | | | | | | |
| No | 313 | 78.3 | 313 | 78.3 | 318 | 79.5 |
| Yes | 87 | 21.8 | 87 | 21.8 | 82 | 20.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q7 Do you rent or own your house? | | | | | | |
| Not stated | 14 | 3.5 | 2 | .5 | 1 | .3 |
| Rent | 165 | 41.3 | 222 | 55.5 | 208 | 52.0 |
| Own | 208 | 52.0 | 158 | 39.5 | 181 | 45.3 |
| Kept by family | 13 | 3.3 | 6 | 1.5 | 4 | 1.0 |
| Other friends | | | 12 | 3.0 | 6 | 1.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q8 Do you owe a debt? | | | | | | |
| Yes | 188 | 47.0 | 213 | 53.3 | 211 | 52.8 |
| No | 211 | 52.8 | 187 | 46.8 | 187 | 46.8 |
| Dont know | 1 | .3 | | | 2 | .5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q9 If yes from where? | | | | | | |
| Friends, relatives or neighbours | 136 | 72.3 | 154 | 71.0 | 148 | 68.5 |
| Usurers | 26 | 13.8 | 33 | 15.2 | 40 | 18.5 |
| Any other outstanding payments at shops, hospitals etc | 8 | 4.3 | 17 | 7.8 | 18 | 8.3 |
| Others (Specify) | 2 | 1.1 | | | 2 | .9 |
| Rent | 2 | 1.1 | 2 | .9 | | |
| Rates | 3 | 1.6 | | | | |
| Lending Institutions | 2 | 1.1 | 1 | .5 | 1 | .5 |
| ZESCO | 1 | .5 | 2 | .9 | 1 | .5 |
| School Fees | 2 | 1.1 | 1 | .5 | 4 | 1.9 |
| World Vision Loans | 1 | .5 | | | | |
| From work place | 5 | 2.7 | 6 | 2.8 | 2 | .9 |
| Church | | | 1 | .5 | | |
| Total | 188 | 100.0 | 217 | 100.0 | 216 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q10 What is your average daily intake of meals? | | | | | | |
| Once a day | | | | | | |
| Twice a day | 38 | 9.5 | 30 | 7.5 | 38 | 9.5 |
| Three times a day | 123 | 30.8 | 138 | 34.5 | 153 | 38.3 |
| | 239 | 59.8 | 232 | 58.0 | 209 | 52.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| Q11 How many times per week does your household consume the following foods | Name of Settlement | | |
|--|------------------------------|------------|---------|
| | Average consumption per week | | |
| | Ng'ombe | Kalikiliki | Freedom |
| A. Milk | 1.4300 | 1.3075 | 1.5000 |
| B. Meat/Chicken | 1.4200 | 1.1725 | 1.3000 |
| C. Eggs | 1.8275 | 1.7875 | 1.7600 |
| D. Fish/Kapenta | 4.5375 | 4.1600 | 3.8225 |
| E. Fruit | 2.3100 | 2.2425 | 2.5450 |
| F. Nsima | 12.0725 | 12.8100 | 12.4050 |
| G. Cooking oil | 10.5275 | 10.7375 | 11.0150 |
| H. Sugar | 6.3550 | 5.5225 | 6.0550 |
| I. Vegetables | 10.6100 | 10.9325 | 10.5600 |
| J. Burns/Bread | 4.8725 | 4.7400 | 4.8975 |
| K. Beans | 2.8175 | 2.4175 | 2.7350 |
| N | 400 | 400 | 400 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q12A Who has access of your household economy | | | | | | |
| Husband | 279 | 69.8 | 265 | 66.3 | 221 | 55.3 |
| Wife | 55 | 13.8 | 62 | 15.5 | 81 | 20.3 |
| Both | 64 | 16.0 | 60 | 15.0 | 81 | 20.3 |
| Dont know | 2 | .5 | 13 | 3.3 | 17 | 4.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q12B Who controls your household economy | | | | | | |
| Husband | 149 | 37.3 | 154 | 38.5 | 148 | 37.0 |
| Wife | 135 | 33.8 | 125 | 31.3 | 129 | 32.3 |
| Both | 113 | 28.3 | 109 | 27.3 | 104 | 26.0 |
| Dont know | 3 | .8 | 12 | 3.0 | 19 | 4.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q13 Do you have any business experience? | | | | | | |
| Yes | 267 | 66.8 | 266 | 66.5 | 264 | 66.0 |
| No | 133 | 33.3 | 134 | 33.5 | 135 | 33.8 |
| Not stated | | | | | 1 | .3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q14 Do you get access to credit or loan now? | | | | | | |
| Yes | 51 | 12.8 | 18 | 4.5 | 29 | 7.3 |
| No | 348 | 87.0 | 376 | 94.0 | 368 | 92.0 |
| Not stated | 1 | .3 | 6 | 1.5 | 3 | .8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q15 If no, are you interested in getting credit or loan? | | | | | | |
| Yes | | | | | | |
| No | 234 | 58.5 | 266 | 66.5 | 236 | 59.0 |
| Not stated | 101 | 25.3 | 103 | 25.8 | 126 | 31.5 |
| Not Applicable | 17 | 4.3 | 12 | 3.0 | 8 | 2.0 |
| | 48 | 12.0 | 19 | 4.8 | 30 | 7.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q16 Are you interested in saving your money in a bank account? | | | | | | |
| Yes | | | | | | |
| No | 312 | 78.0 | 316 | 79.0 | 337 | 84.3 |
| Not stated | 76 | 19.0 | 76 | 19.0 | 58 | 14.5 |
| | 12 | 3.0 | 8 | 2.0 | 5 | 1.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| Q17 What type of disease did your family members catch during the past year | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|--------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Diarrhoea | | | | | | |
| No | 308 | 77.0 | 286 | 71.5 | 310 | 77.5% |
| Yes | 92 | 23.0 | 114 | 28.5 | 90 | 22.5% |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0% |
| Malaria | | | | | | |
| No | 142 | 35.5 | 123 | 30.8 | 92 | 23.0% |
| Yes | 258 | 64.5 | 277 | 69.3 | 308 | 77.0% |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0% |
| Accute respiratory infection | | | | | | |
| No | 348 | 87.0 | 364 | 91.0 | 366 | 91.5% |
| Yes | 52 | 13.0 | 36 | 9.0 | 34 | 8.5% |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0% |

Source: Social Conditions Survey Field Data

| Q18 When your family member(s) get(s) sick, what do you do? | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Go to Clinic | 341 | 85.3 | 335 | 83.8 | 346 | 86.5 |
| Go to traditional healer | 3 | .8 | 3 | .8 | 3 | .8 |
| Pharmacy | 22 | 5.5 | 29 | 7.3 | 23 | 5.8 |
| Home treatment | 26 | 6.5 | 22 | 5.5 | 19 | 4.8 |
| Not stated | 8 | 2.0 | 11 | 2.8 | 9 | 2.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| Q19 How do you get information about health and sanitation | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Health education class given by clinic? | | | | | | |
| No | 151 | 37.8 | 118 | 29.5 | 125 | 31.3 |
| Yes | 249 | 62.3 | 282 | 70.5 | 275 | 68.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Health education class held at school | | | | | | |
| No | 391 | 97.8 | 400 | 100.0 | 398 | 99.5 |
| Yes | 9 | 2.3 | | | 2 | .5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Health education class at community | | | | | | |
| No | 376 | 94.0 | 382 | 95.5 | 393 | 98.3 |
| Yes | 24 | 6.0 | 18 | 4.5 | 7 | 1.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Through neighbours? | | | | | | |
| No | 363 | 90.8 | 367 | 91.8 | 367 | 91.8 |
| Yes | 37 | 9.3 | 33 | 8.3 | 33 | 8.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Other Sources others? | | | | | | |
| Not Applicable/dont know | 303 | 75.8 | 293 | 73.3 | 275 | 68.8 |
| Radio/TV | 73 | 18.3 | 69 | 17.3 | 81 | 20.3 |
| Community visit and sensitisation | 5 | 1.3 | 22 | 5.5 | 33 | 8.3 |
| Workplace | 2 | .5 | | | 2 | .5 |
| Church organisation | 4 | 1.0 | 8 | 2.0 | 4 | 1.0 |
| CCF | 1 | .3 | | | | |
| Peer Educators | 12 | 3.0 | 8 | 2.0 | 5 | 1.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q20 Where do you get drinking water from? | | | | | | |
| Not stated | 2 | .5 | | | | |
| Stream | 2 | .5 | 2 | .5 | | |
| Public tap | 149 | 37.3 | 169 | 42.3 | 355 | 88.8 |
| Private tap | 12 | 3.0 | 180 | 45.0 | 43 | 10.8 |
| Own well | 45 | 11.3 | | | | |
| Other households well | 84 | 21.0 | | | | |
| Other source (specify) | 2 | .5 | 1 | .3 | | |
| Borehole | 87 | 21.8 | 1 | .3 | | |
| Hand pump | 3 | .8 | 1 | .3 | | |
| Public well | 14 | 3.5 | 2 | .5 | | |
| Other household private taps | | | 44 | 11.0 | 2 | .5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q21 Is water for other uses drawn from the same source? | | | | | | |
| Yes | | | | | | |
| No | 309 | 77.3 | 363 | 90.8 | 397 | 99.3 |
| Dont know | 87 | 21.8 | 36 | 9.0 | 2 | .5 |
| | 4 | 1.0 | 1 | .3 | 1 | .3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q22 If not, then from which source? | | | | | | |
| Not stated | | | | | | |
| Stream | 81 | 46.6 | 107 | 74.3 | 143 | 97.3 |
| Public tap | 18 | 10.3 | 7 | 4.9 | 2 | 1.4 |
| Private tap | 5 | 2.9 | | | 1 | .7 |
| Own well | | | 1 | .7 | 1 | .7 |
| Other households well | 23 | 13.2 | 5 | 3.5 | | |
| Borehole | 40 | 23.0 | 24 | 16.7 | | |
| | 7 | 4.0 | | | | |
| Total | 174 | 100.0 | 144 | 100.0 | 147 | 100.0 |
| Q23 How often do you draw water? | | | | | | |
| Not stated | | | | | | |
| Everyday | 1 | .3 | 1 | .3 | | |
| 3 - 4 times a week | 350 | 87.5 | 359 | 89.8 | 321 | 80.3 |
| Less than 2 times a week | 42 | 10.5 | 39 | 9.8 | 72 | 18.0 |
| | 7 | 1.8 | 1 | .3 | 7 | 1.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| □□ | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q24 Who draws water? | | | | | | |
| Housewife | 273 | 68.3 | 282 | 70.5 | 280 | 70.0 |
| Daughter | 38 | 9.5 | 50 | 12.5 | 54 | 13.5 |
| Son | 18 | 4.5 | 18 | 4.5 | 11 | 2.8 |
| Other (specify) | 1 | .3 | 1 | .3 | 7 | 1.8 |
| Dont know | 3 | .8 | 1 | .3 | | |
| Children | 2 | .5 | 1 | .3 | 3 | .8 |
| Servant | 4 | 1.0 | 5 | 1.3 | 2 | .5 |
| The whole family | 25 | 6.3 | 6 | 1.5 | 8 | 2.0 |
| Sister - law/brother in law | 3 | .8 | 2 | .5 | 8 | 2.0 |
| Piece-workers | 9 | 2.3 | 7 | 1.8 | 5 | 1.3 |
| Himself | 9 | 2.3 | 9 | 2.3 | 11 | 2.8 |
| Siblings | 11 | 2.8 | 4 | 1.0 | 4 | 1.0 |
| Uncle | 1 | .3 | | | | |
| grand children | 3 | .8 | 3 | .8 | 6 | 1.5 |
| Husband/wife | | | 2 | .5 | | |
| Brother/sister | | | 5 | 1.3 | | |
| Nephews/Nieces | | | 4 | 1.0 | 1 | .3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q25 How long does it take to walk to the drinking water source (one way)? | | | | | | |
| Less than 5 minutes | 199 | 49.8 | 134 | 33.5 | 209 | 52.3 |
| 5 - 15 minutes | 133 | 33.3 | 136 | 34.0 | 137 | 34.3 |
| 20-30 minutes | 34 | 8.5 | 68 | 17.0 | 39 | 9.8 |
| More than 30 minutes | 22 | 5.5 | 53 | 13.3 | 10 | 2.5 |
| Dont know | 12 | 3.0 | 9 | 2.3 | 5 | 1.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q26 How long does it take to queue and draw water there? | | | | | | |
| Less than 5 minutes | | | | | | |
| 5 - 15 minutes | 103 | 25.8 | 51 | 12.8 | 14 | 3.5 |
| 15 - 30 minutes | 57 | 14.3 | 79 | 19.8 | 21 | 5.3 |
| 30 - 60 minutes | 36 | 9.0 | 42 | 10.5 | 27 | 6.8 |
| More than 1 hour | 51 | 12.8 | 116 | 29.0 | 102 | 25.5 |
| Dont know | 149 | 37.3 | 111 | 27.8 | 233 | 58.3 |
| | 4 | 1.0 | 1 | .3 | 3 | .8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-----|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q27 Do you wash your hands before drawing water? | | | | | | |
| Always | 137 | 34.3 | 202 | 50.5 | 198 | 49 |
| Sometimes | 128 | 32.0 | 127 | 31.8 | 93 | 23 |
| Never | 103 | 25.8 | 56 | 14.0 | 96 | 24 |
| Dont know | 32 | 8.0 | 15 | 3.8 | 13 | 3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100 |
| Q28 Do you use clean buckets/containers that have never been used | | | | | | |
| Yes | | | | | | |
| No | 352 | 88.0 | 363 | 90.8 | 365 | 91 |
| Not stated | 40 | 10.0 | 32 | 8.0 | 33 | 8 |
| | 8 | 2.0 | 5 | 1.3 | 2 | |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100 |

Source: Social Conditions Survey Field Data

| Average water usage and payment | Name of Settlement | | | | | |
|--|--------------------|-----------|------------|---------|---------|---------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | Mean | SD | Mean. | SD | Mean | SD |
| Q29 How much water do you use each day | 4.3393 | 2.0111 | 3.98 | 1.88 | 5.65 | 2.99 |
| Q30A How much do you pay for water per 20 Litres | 149.2500 | 1022.0131 | 65.00 | 89.34 | 118.37 | 282.78 |
| Q30B How much do you pay for water-Scheme ZK | 2676.75 | 3639.86 | 1699.75 | 1688.59 | 2496.87 | 3149.34 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q31 Do you want water facility that supplies safe water? | | | | | | |
| Yes | | | | | | |
| No | 382 | 95.5 | 381 | 95.3 | 391 | 97.8 |
| Not stated | 12 | 3.0 | 16 | 4.0 | 8 | 2.0 |
| | 6 | 1.5 | 3 | .8 | 1 | .3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q32 If yes, what kind of facility do you want? | | | | | | |
| House connection | | | | | | |
| Stand pipes | 147 | 36.8 | 165 | 41.3 | 192 | 48.0 |
| Others (specify) | 229 | 57.3 | 202 | 50.5 | 182 | 45.5 |
| Dont know | 2 | .5 | 1 | .3 | 2 | .5 |
| Mono pumps | 5 | 1.3 | 2 | .5 | 1 | .3 |
| Borehole | 2 | .5 | 3 | .8 | 1 | .3 |
| Any, no preference | 3 | .8 | 10 | 2.5 | 11 | 2.8 |
| Communal taps | 1 | .3 | | | 2 | .5 |
| Not stated | | | 2 | .5 | 2 | .5 |
| | 11 | 2.8 | 15 | 3.8 | 7 | 1.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q33 Are you willing to participate in the water project | | | | | | |
| Yes | 373 | 93.3 | 375 | 93.8 | 381 | 95.3 |
| No | 18 | 4.5 | 16 | 4.0 | 7 | 1.8 |
| Not stated | 9 | 2.3 | 9 | 2.3 | 12 | 3.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q34 If yes in what way -Labour for construction | | | | | | |
| No | 88 | 22.0 | 107 | 26.8 | 73 | 18.3 |
| Yes | 290 | 72.5 | 283 | 70.8 | 323 | 80.8 |
| Not stated | 22 | 5.5 | 10 | 2.5 | 4 | 1.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| In what way part. in water proj - Money for construction | | | | | | |
| No | 232 | 58.0 | 245 | 61.3 | 264 | 66.0 |
| Yes | 135 | 33.8 | 145 | 36.3 | 132 | 33.0 |
| Not stated | 33 | 8.3 | 10 | 2.5 | 4 | 1.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| In waht way part. in water proj - Money for operation and maintenance | | | | | | |
| No | 324 | 81.0 | 330 | 82.5 | 323 | 80.8 |
| Yes | 44 | 11.0 | 60 | 15.0 | 73 | 18.3 |
| Not stated | 32 | 8.0 | 10 | 2.5 | 4 | 1.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| In waht way part. in water proj - Labour for operation and maintenance | | | | | | |
| No | 294 | 73.5 | 243 | 60.8 | 254 | 63.5 |
| Yes | 71 | 17.8 | 145 | 36.3 | 142 | 35.5 |
| Not stated | 35 | 8.8 | 12 | 3.0 | 4 | 1.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| In waht way part. in water proj - Cleaning of the facility | | | | | | |
| No | 323 | 80.8 | 302 | 75.5 | 282 | 70.5 |
| Yes | 43 | 10.8 | 88 | 22.0 | 113 | 28.3 |
| Not stated | 34 | 8.5 | 10 | 2.5 | 5 | 1.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| In waht way part. in water proj - Registration as a water user | | | | | | |
| No | 319 | 79.8 | 341 | 85.3 | 340 | 85.0 |
| Yes | 46 | 11.5 | 49 | 12.3 | 56 | 14.0 |
| Not stated | 35 | 8.8 | 10 | 2.5 | 4 | 1.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| Willingness to pay for Water | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q36 Are you willing to pay for water? | | | | | | |
| Yes | 334 | 83.5 | 348 | 87.0 | 311 | 77.8 |
| No | 51 | 12.8 | 33 | 8.3 | 72 | 18.0 |
| Not stated | 15 | 3.8 | 19 | 4.8 | 17 | 4.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q37A If yes, how much can you pay for 20 liter | | | | | | |
| Mean | 638.92 | | 53.45 | | 29.31 | |
| SD | 2314.37 | | 147.19 | | 88.49 | |
| Q37B If yes, how much can you pay per month-ZK | | | | | | |
| Mean | 4861.50 | | 3545.75 | | 5126.00 | |
| SD | 8200.99 | | 5238.46 | | 8184.09 | |
| Q38 If you can not pay, why? | | | | | | |
| Not stated | 95 | 65.5 | 118 | 78.6 | 108 | 60.7 |
| No money | 41 | 28.3 | 27 | 18.0 | 65 | 36.5 |
| Never collected before | 1 | .7 | 1 | .7 | | |
| Services not reliable | 5 | 3.4 | 3 | 2.0 | 3 | 1.7 |
| Others (specify) | 1 | .7 | 1 | .7 | 1 | .6 |
| Not using much | 2 | 1.4 | | | 1 | .6 |
| Total | 145 | 100.0 | 150 | 100.0 | 178 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q39 How do you store water in the house? | | | | | | |
| Plastic container | 359 | 89.8 | 354 | 88.5 | 360 | 90.0 |
| Tins | 27 | 6.8 | 38 | 9.5 | 27 | 6.8 |
| Earthen pot | 6 | 1.5 | | | | |
| Dont know | 2 | .5 | 3 | .8 | 2 | .5 |
| Buckets | 6 | 1.5 | 5 | 1.3 | 11 | 2.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q40 Is the water covered in the house all the time? | | | | | | |
| Yes | | | | | | |
| No | 381 | 95.3 | 371 | 92.8 | 359 | 89.8 |
| Not stated | 16 | 4.0 | 27 | 6.8 | 41 | 10.3 |
| | 3 | .8 | 2 | .5 | | |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q41 Is the water placed on a platform 15 to 30 cm above the ground? | | | | | | |
| Yes | | | | | | |
| No | 278 | 69.5 | 276 | 69.0 | 220 | 55.0 |
| Not stated | 117 | 29.3 | 118 | 29.5 | 177 | 44.3 |
| | 5 | 1.3 | 6 | 1.5 | 3 | .8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q42 Do you store drinking/cooking water separately from other water | | | | | | |
| Yes | | | | | | |
| No | 313 | 78.3 | 303 | 75.8 | 340 | 85.0 |
| Not stated | 85 | 21.3 | 94 | 23.5 | 57 | 14.3 |
| | 2 | .5 | 3 | .8 | 3 | .8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q42 Do you boil drinking water? | | | | | | |
| Yes | 79 | 19.8 | 73 | 18.3 | 61 | 15.3 |
| No | 315 | 78.8 | 326 | 81.5 | 336 | 84.0 |
| Not stated | 6 | 1.5 | 1 | .3 | 3 | .8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalilikiki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q44 If no, Reasons for not boiling water | | | | | | |
| Looks clean | 32 | 8.0 | 86 | 21.5 | 64 | 16.0 |
| Waste of time | 22 | 5.5 | 43 | 10.8 | 26 | 6.5 |
| Waste of money (for buying charcoal) | 27 | 6.8 | 33 | 8.3 | 21 | 5.3 |
| Loses taste | 11 | 2.8 | 12 | 3.0 | 5 | 1.3 |
| Use Chlorine rather than boiling | | | | | | |
| Other | 204 | 51.0 | 119 | 29.8 | 140 | 35.0 |
| Not stated | 1 | .3 | | | 2 | .5 |
| Not at home most of the time | 84 | 21.0 | 80 | 20.0 | 77 | 19.3 |
| They put chemicals before it comes | | | | | | |
| Not used | 1 | .3 | | | | |
| Chlorine is put in wells | 7 | 1.8 | 7 | 1.8 | 45 | 11.3 |
| Have no money | 6 | 1.5 | 14 | 3.5 | 6 | 1.5 |
| Total | 2 | .5 | 1 | .3 | 14 | 3.5 |
| | 3 | .8 | 5 | 1.3 | | |
| | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q45 Does your family wash their hands before handling or eating food? | | | | | | |
| Always | 319 | 79.8 | 335 | 83.8 | 345 | 86.3 |
| Sometimes | 75 | 18.8 | 56 | 14.0 | 51 | 12.8 |
| Never | 2 | .5 | 9 | 2.3 | 3 | .8 |
| Dont know | 4 | 1.0 | | | 1 | .3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q46 Does your family wash hands before handling water containers? | | | | | | |
| Always | 118 | 29.5 | 92 | 23.0 | 102 | 25.5 |
| Sometimes | 133 | 33.3 | 161 | 40.3 | 134 | 33.5 |
| Never | 124 | 31.0 | 139 | 34.8 | 155 | 38.8 |
| Dont know | 25 | 6.3 | 8 | 2.0 | 9 | 2.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q47 Does your family wash hands before scooping water to drink? | | | | | | |
| Always | 91 | 22.8 | 82 | 20.5 | 87 | 21.8 |
| Sometimes | 129 | 32.3 | 133 | 33.3 | 137 | 34.3 |
| Never | 152 | 38.0 | 179 | 44.8 | 163 | 40.8 |
| Dont know | 28 | 7.0 | 6 | 1.5 | 13 | 3.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q48 Does your family share same water in a basin to wash their hands? | | | | | | |
| Always | 295 | 73.8 | 332 | 83.0 | 336 | 84.0 |
| Sometimes | 55 | 13.8 | 42 | 10.5 | 51 | 12.8 |
| Never | 48 | 12.0 | 26 | 6.5 | 13 | 3.3 |
| Dont know | 2 | .5 | | | | |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q49 What cleaning agent does your family use for washing hands? | | | | | | |
| Soap | 302 | 75.5 | 288 | 72.0 | 248 | 62.0 |
| Ash | 2 | .5 | | | | |
| Others (specify) | 4 | 1.0 | 11 | 2.8 | 1 | .3 |
| Dont know | | | 1 | .3 | 1 | .3 |
| Nothing | 92 | 23.0 | 100 | 25.0 | 150 | 37.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q50 What do you use for washing hands after handling soiled napkins | | | | | | |
| Use of tap water and ash or soap | | | | | | |
| Use of tap water only | 108 | 27.0 | 176 | 44.0 | 202 | 50.5 |
| Use of other sources of water and ash or soap | 18 | 4.5 | 82 | 20.5 | 36 | 9.0 |
| Use of other source of water only | 215 | 53.8 | 85 | 21.3 | 67 | 16.8 |
| Dont know | 21 | 5.3 | 3 | .8 | 5 | 1.3 |
| Total | 38 | 9.6 | 54 | 13.5 | 90 | 22.5 |
| | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q51 Is there any toilet in your house area? | | | | | | |
| Yes | 325 | 81.3 | 315 | 78.8 | 332 | 83.0 |
| No | 75 | 18.8 | 75 | 18.8 | 62 | 15.5 |
| Not stated | | | 10 | 2.5 | 6 | 1.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q52 If no, where do you go for toilet? | | | | | | |
| Tavern | 3 | 3.9 | 11 | 14.1 | 3 | 4.8 |
| Open space | 5 | 6.5 | 1 | 1.3 | 3 | 4.8 |
| Drainage | | | | | 1 | 1.6 |
| Other familys toilet | 68 | 88.3 | 66 | 84.6 | 54 | 87.1 |
| Other (specify) | | | | | 1 | 1.6 |
| Not stated | 1 | 1.3 | | | | |
| Total | 77 | 100.0 | 78 | 100.0 | 62 | 100.0 |
| Q53 If yes, what type of latrine do you use in your house area? | | | | | | |
| Not stated | 10 | 2.9 | 20 | 5.7 | 22 | 6.1 |
| Ordinary pit | 327 | 93.4 | 326 | 91.8 | 336 | 92.6 |
| Ventilated Improved Pit Latrine (VIP) | 12 | 3.4 | 9 | 2.5 | 3 | .8 |
| Other | 1 | .3 | | | | |
| Flush toilet | | | | | 2 | .6 |
| Total | 350 | 100.0 | 355 | 100.0 | 363 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q54 If yes in Question 51, how often do you clean your toilet? | | | | | | |
| Not stated | 12 | 3.5 | 23 | 6.6 | 19 | 5.3 |
| Every day | 298 | 86.6 | 283 | 80.6 | 285 | 79.4 |
| 1- 3 times a week | 20 | 5.8 | 24 | 6.8 | 32 | 8.9 |
| 4 - 6 times a week | 3 | .9 | 4 | 1.1 | | |
| Once in two weeks | 2 | .6 | | | 1 | .3 |
| Rarely or never | 7 | 2.0 | 14 | 4.0 | 18 | 5.0 |
| Dont know | 2 | .6 | 3 | .9 | 4 | 1.1 |
| Total | 344 | 100.0 | 351 | 100.0 | 359 | 100.0 |
| Q55 Do you share the toilet with other households? | | | | | | |
| Yes | 258 | 64.5 | 298 | 74.5 | 283 | 70.8 |
| No | 126 | 31.5 | 93 | 23.3 | 103 | 25.8 |
| Not stated | 16 | 4.0 | 9 | 2.3 | 14 | 3.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q56 If yes, number of households using latrine | | | | | | |
| Dont know | 33 | 10.8 | 29 | 8.5 | 33 | 10.2 |
| One family | 83 | 27.2 | 65 | 19.0 | 41 | 12.7 |
| More than one family | 181 | 59.3 | 245 | 71.4 | 247 | 76.7 |
| Not stated | 8 | 2.6 | 4 | 1.2 | 1 | .3 |
| Total | 305 | 100.0 | 343 | 100.0 | 322 | 100.0 |
| Q57 If have home latrine but not used, reason for not using it? | | | | | | |
| Dont know | | | | | | |
| Full | 92 | 48.4 | 96 | 49.2 | 106 | 52.5 |
| Damaged (superstructure) | 9 | 4.7 | 35 | 17.9 | 35 | 17.3 |
| Other (specify | 36 | 18.9 | 50 | 25.6 | 52 | 25.7 |
| Not stated | 1 | .5 | | | | |
| Landlord uses it | 46 | 24.2 | 13 | 6.7 | 3 | 1.5 |
| Under construction | 1 | .5 | | | | |
| | 5 | 2.6 | 1 | .5 | 6 | 3.0 |
| Total | 190 | 100.0 | 195 | 100.0 | 202 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q58 willing to use VIP latrines if they are installed under | | | | | | |
| Yes | | | | | | |
| No | 335 | 83.8 | 356 | 89.0 | 374 | 93.5 |
| Not stated | 51 | 12.8 | 32 | 8.0 | 20 | 5.0 |
| | 14 | 3.5 | 12 | 3.0 | 6 | 1.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q59 willing to offer labour, for construction of VIP latrines? | | | | | | |
| Yes | | | | | | |
| No | | | | | | |
| Not stated | 328 | 82.0 | 345 | 86.3 | 362 | 90.5 |
| | 52 | 13.0 | 36 | 9.0 | 29 | 7.3 |
| Total | 20 | 5.0 | 19 | 4.8 | 9 | 2.3 |
| Q60 willing to pay money or offer labour force for maintenance | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Yes (money only) | | | | | | |
| Yes (labour only) | 47 | 11.8 | 38 | 9.5 | 30 | 7.5 |
| Yes (both money and labour) | 189 | 47.3 | 192 | 48.0 | 188 | 47.0 |
| Neither money nor labour | 107 | 26.8 | 128 | 32.0 | 146 | 36.5 |
| Not stated | 35 | 8.8 | 23 | 5.8 | 13 | 3.3 |
| Total | 22 | 5.5 | 19 | 4.8 | 23 | 5.8 |
| | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| Q61 Participation in Community Activities | Name of Settlement | | | | | |
|--|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Participate in the water committee | | | | | | |
| Yes | 51 | 12.8 | 59 | 14.8 | 57 | 14.3 |
| No | 316 | 79.0 | 332 | 83.0 | 332 | 83.0 |
| Not stated | 33 | 8.3 | 9 | 2.3 | 11 | 2.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Participate in the Market committee | | | | | | |
| Yes | 45 | 11.3 | 41 | 10.3 | 53 | 13.3 |
| No | 319 | 79.8 | 346 | 86.5 | 331 | 82.8 |
| Not stated | 36 | 9.0 | 13 | 3.3 | 16 | 4.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Participate in Education activity | | | | | | |
| Yes | | | | | | |
| No | 58 | 14.5 | 65 | 16.3 | 57 | 14.3 |
| Not stated | 301 | 75.3 | 318 | 79.5 | 322 | 80.5 |
| | 41 | 10.3 | 17 | 4.3 | 21 | 5.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Participate in Health/Hygiene education | | | | | | |
| Yes | | | | | | |
| No | 70 | 17.5 | 81 | 20.3 | 60 | 15.0 |
| Not stated | 286 | 71.5 | 301 | 75.3 | 319 | 79.8 |
| | 44 | 11.0 | 18 | 4.5 | 21 | 5.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| Q62 Problems regarding community activities: Do you think there are problems that hinder peoples participation | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| A. Water committee | | | | | | |
| Yes | 209 | 52.3 | 154 | 38.5 | 132 | 33.0 |
| No | 63 | 15.8 | 92 | 23.0 | 113 | 28.3 |
| Not stated | 128 | 32.0 | 154 | 38.5 | 155 | 38.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| B. Market committee | | | | | | |
| Yes | 188 | 47.0 | 156 | 39.0 | 126 | 31.5 |
| No | 85 | 21.3 | 90 | 22.5 | 116 | 29.0 |
| Not stated | 127 | 31.8 | 154 | 38.5 | 158 | 39.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| C. Education activity | | | | | | |
| Yes | 187 | 46.8 | 147 | 36.8 | 112 | 28.0 |
| No | 84 | 21.0 | 92 | 23.0 | 104 | 26.0 |
| Not stated | 129 | 32.3 | 161 | 40.3 | 184 | 46.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| D. Health/Hygiene education | | | | | | |
| Yes | | | | | | |
| No | 181 | 45.3 | 145 | 36.3 | 116 | 29.0 |
| Not stated | 89 | 22.3 | 97 | 24.3 | 105 | 26.3 |
| Total | 130 | 32.5 | 158 | 39.5 | 179 | 44.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q63 Are you willing to use community centre if it is constructed | | | | | | |
| Yes | 365 | 91.3 | 383 | 95.8 | 373 | 93.3 |
| No | 33 | 8.3 | 13 | 3.3 | 19 | 4.8 |
| Not stated | 2 | .5 | 4 | 1.0 | 8 | 2.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q64 For what kind of activity use centre for | | | | | | |
| Water committee | | | | | | |
| Yes | 134 | 33.5 | 135 | 33.8 | 129 | 32.3 |
| Not stated | 266 | 66.5 | 265 | 66.3 | 271 | 67.8 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Market committee | | | | | | |
| Yes | 109 | 27.3 | 129 | 32.3 | 142 | 35.5 |
| Not stated | 291 | 72.8 | 271 | 67.8 | 258 | 64.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Education activity | | | | | | |
| Yes | 139 | 34.8 | 156 | 39.0 | 151 | 37.8 |
| Not stated | 261 | 65.3 | 244 | 61.0 | 249 | 62.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Health/Hygiene education | | | | | | |
| Yes | 152 | 38.0 | 163 | 40.8 | 188 | 47.0 |
| Not stated | 248 | 62.0 | 237 | 59.3 | 212 | 53.0 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data

| | Name of Settlement | | | | | |
|---|--------------------|-------|------------|-------|---------|-------|
| | Ng'ombe | | Kalikiliki | | Freedom | |
| | No. | % | No. | % | No. | % |
| Q65 Willing offer labour force for constr. community centre? | | | | | | |
| Yes | 355 | 88.8 | 371 | 92.8 | 369 | 92.3 |
| No | 41 | 10.3 | 23 | 5.8 | 22 | 5.5 |
| Not stated | 4 | 1.0 | 6 | 1.5 | 9 | 2.3 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |
| Q66 Willing to pay money/offer labour force for maintenance? | | | | | | |
| Yes (money only) | 54 | 13.5 | 34 | 8.5 | 23 | 5.8 |
| Yes (labour only) | 199 | 49.8 | 196 | 49.0 | 221 | 55.3 |
| Yes (both money and labour) | 108 | 27.0 | 149 | 37.3 | 131 | 32.8 |
| Neither money nor labour | 27 | 6.8 | 14 | 3.5 | 15 | 3.8 |
| Not stated | 12 | 3.0 | 7 | 1.8 | 10 | 2.5 |
| Total | 400 | 100.0 | 400 | 100.0 | 400 | 100.0 |

Source: Social Conditions Survey Field Data