

**SANITATION AND COMMUNICATION  
SITUATION ANALYSIS**

**FOR**

**PERI-URBAN AND RURAL AREAS**

**IN**

**ZAMBIA**

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## Abbreviations

CMMU	Community Management and Monitoring Unit
CU	Commercial Utilities
DAPP	Development Aid from Partner to Partner
DDCC	District Development Coordination Committee
DISS	Department of Infrastructure Support Devices
DWA	Department of Water Affairs
D-WASHE	District Water, Sanitation and Health Education
EHT	Environmental Health Technicians
GRZ	Government of the Republic of Zambia
JICA	Japanese International Co-operation Agency
KAP	Knowledge, Attitude, Practice
LOGOSP	Local Government Support Project
MCDSS	Ministry of Community Development and Social Services
MEP	Minimum Evaluation Procedures
MLGH	Ministry of Local Government and Housing
MoH	Ministry of Health
N - WASHE	National Water Sanitation Health Education (WASHE) Co-ordination and Training Team
NORAD	Norwegian Agency for Development
NWASCO	National Water and Sanitation Council
ODA	Overseas Development Agency
PCU	Programme Coordination Unit
RSU	Reform Support Unit
SNV	Dutch organisation for development aid
TBA	Traditional birth attendant
VIP latrine	Ventilated Improved Pit latrine
VIPP	Visualisation in Participatory Programmes
WSDG	Water Sector Development Group
WGS	Working Group on Sanitation

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## 1. INTRODUCTION

For a long time the water supply and sanitation sector in Zambia has been increasingly failing to deliver an acceptable level of service to the urban, peri-urban and rural communities. The performance of the sector has been constrained by interrelated problems including the lack of a comprehensive sector policy and weakness in the institutional, legislative and organizational framework of the sector. In an effort to reverse this situation, the government of Zambia has been involved in a major sector reform programme with the aim to establish policies, strategies and institutions better able to improve the quality of life and productivity of all people by ensuring an equitable provision of adequate, safe and cost effective water supply and sanitation on a sustainable basis.

In 1993, therefore, the Programme Coordination Unit (PCU), an interministerial committee, was established to steer the implementation of the sector reforms, with the Water Sector Development group (WSDG) as its executive arm. Although sanitation is part of the sector reform, so far almost no efforts have been directed to the development of a strategy and policy to improve sanitation conditions in Zambia. There is very little focus on sanitation, from policy framework to implementation. This is particularly true with respect to rural and peri-urban areas.

Yet, Zambia now has cholera outbreaks which yearly return at the onset of the rainy season and the disease now has become endemic. In addition, since 1990 more than 20,000 cases of dysentery have been reported and there is a high incidence and prevalence of diarrhoea. The main factors underlying these diseases are the lack of proper excreta disposal, poor personal and food hygiene and the use of water from unprotected sources. Presently, safe and convenient sanitation coverage is stated to be 88% in urban areas and 43% in rural areas. However, this figure seems to be very much on the optimistic side, especially as urban coverage includes areas with sewerage and septic tank coverage, and no figures are given on coverage in the peri-urban areas. Sector professional estimate effective coverage in rural areas to be around 12%, while the coverage in peri-urban areas would be in the range of 70%.

In order to bring sanitation and hygiene promotion more to the forefront of national development, the PCU has established a Working Group on Sanitation in 1997 to develop and reach a consensus on a national strategy for sanitation. The short term objectives of this working group are:

- to develop a national strategy framework for sanitation and hygiene promotion, along with an action plan, with special emphasis on the needs of poor rural communities and deprived low-income urban populations
- to create high level political awareness and commitment to address the overall objective of the national strategy
- to clearly define the roles and responsibilities of all partners in the sector in working towards the overall short and long term objectives.

As a start, in April 1997, a workshop took place on consensus building for sanitation, in which representatives from all major actors in the field of sanitation were present. In this workshop, the following vision statement was agreed upon:

“Improve national access to appropriate, acceptable and affordable excreta and domestic waste disposal facilities through sustainable approaches that are demand driven and promote hygienic behavioural changes that bring about health and well being of the people”.

In order to reach this vision, a number of activities has been envisaged. The first of these and basis for all others, is a situation analysis. The main objectives of this analysis are:

- to update the situation analysis of sanitation and hygiene in the sector as a basis for developing a comprehensive national strategy framework for sanitation and hygiene promotion
- to review current institutional arrangements and private sector potential in the sub-sector as a basis for preparing a proposal for institutional reforms and private sector involvement for the effective implementation of the national strategy framework for sanitation and hygiene promotion
- review funding mechanisms, especially potentials for enabling communities to directly access loans/credit, as well as their potential to effectively manage such funds
- review current communication approaches and gaps as a basis for developing a comprehensive communication chapter in the national strategy framework for sanitation and hygiene promotion.

In chapter 2 an overview is given of background data and statistics that are important for a broad context. In chapter 3 an analysis is given of the current sanitation situation, both in peri-urban and rural areas. Information is given on coverage, type of sanitation technology used in latrine construction, cost of latrines, hygiene behaviour and approaches taken for mobilisation for sanitation. It also covers solid waste and drainage aspects.

Communication is considered as an integral part of all activities in all phases. As communication is generally not understood in these terms, chapter 4 starts with an overview of how the mission sees communication. It then continues to analyze how communication is seen by those involved in sanitation in the country and analysis what is actually done in communication at present. Chapter 5 gives an overview of all actors at all levels who are currently involved in the provision of environmental sanitation. Current funding mechanisms are presented in chapter 6. General criteria for selection of villages and peri-urban areas for sanitation improvements do not exist at this moment - an overview of options is given in chapter 7. Chapter 8, finally, deals with indicators and issues for monitoring.

The mission was conducted from May 17, 1997 to June 7, 1997. The methodology of the mission basically consisted of assessment of secondary materials, discussions with sector organisations and their staff and field trips. During the first workshop, different subgroups were formed to assemble materials for the mission. Although much material was given, much information turned out to be unavailable. Field trips were made to Monze district (2 days), Eastern province (4 days) and Luapula (5 days), the itinerary is attached in the annex. Observations made during the field trips are put in italics in the text. The draft report was produced after a period of two weeks in order to be available at the workshop held in Siavonga from June 3 to June 6. During the workshop, comments were given on the draft report and working groups discussed specific topics. As far as relevant for the situation analysis, the outcome of the workshop deliberations are included in the final report.



## **2. GENERAL BACKGROUND**

### **2.1 Social and political information**

The Republic of Zambia is a landlocked country located in the southern part of Central Africa, extending from eight to eighteen degrees south of the equator. It is bordered by Zaire and Tanzania in the north, by Malawi and Mozambique in the east, by Zimbabwe and Botswana in the south, by Namibia in the Southwest, and by Angola in the west.

Zambia's total land area is 752,614 square kilometres. The climate is tropical with three seasons, a hot, a cold and a rainy season. Normally there is sufficient rainfall between November and April to sustain agricultural production, although only about one fifth of the cultivable land is actually farmed. The most important crop is maize, while other crops include groundnuts, millet, sorghum, cotton, tobacco, sunflower and cassava. But in years of drought, such as in the early nineties, the availability of water is much reduced and agricultural production is curtailed. The drought stimulated donor activities in the water sector and explains the present major focus on water supply with the donors.

The country is divided into nine provinces, each with its respective provincial administrative centre. The provinces are further divided into districts., presently there are 70 districts. In the present government reform, decentralisation to the districts is a major principle and the districts therefore will become the focus of development activities. There are 73 ethnic tribes and settler groups whose common language is English, while also seven major vernacular languages are used in the media.

Zambia before independence was known as Northern Rhodesia and was part of the Federation of Rhodesia and Nyasaland under British colonial rule. The country was basically exploited for its agricultural and mineral resources and as a source of cheap labour. Nothing much was done to stimulate development of traditional agriculture, to establish domestic manufacturing and to educate the population to be able to take control over their own destiny. When gaining full independence in 1964, the main basis for the economy were the mineral resources (notably copper which at that time was high priced in the World market. This income enabled the government to embark on the development of a social, physical and economic infrastructure. Education was made compulsory and health services were provided free of charge. The government adopted a philosophy of humanism, which was inspired by socialism. In 1972 the Government declared a one party state to avoid the country getting divided by tribalism. This proved to be quite successful, especially in comparison with other sub-Saharan African nations. But at the same time criticism and political opposition were suppressed and the distinction between ruling party and the state was lost. In 1974 world copper prices plummeted, oil prices went up, while the country was also affected by the freedom struggles in the region which it supported. This coupled with the inept public policies, prevented the country to find an effective response to the economic crisis, causing a general decline in living conditions and a collapsing economy which lasted to the early nineties. This led to popular discontent, resulting in demands for political change and culminating in the election of a new president and change to multi-party democracy in 1991.

Zambia is now one of the least developed and worst indebted countries in the world (GRZ and UN System in Zambia, 1996).

Human conditions in Zambia have worsened since the mid-1980s. People have become poorer and most government services have further declined. By 1995, two thirds of the Zambians is living below the poverty line and most Zambians have had to adopt coping strategies to survive. All that was gained in terms of social improvements such as health, education, employment, income and living conditions during the first two decades after independence, now has been lost. The present government has been focusing on rapid structural economic reforms and stabilising of the economy which has had a very large impact on the living conditions of a large number of Zambians.

## **2.2 Social and cultural background**

Zambia has 72 ethnic tribes and settler groups. While these tribes have many traditions in common, they also have a diversity of cultural beliefs and practices. The social system in rural areas is characterised by the extended family system, in which both matrilineal and patrilineal systems are in existence. In urban areas, the family system is predominantly nuclear. The position of women is subordinate to that of the men, and men tend to dominate decision making both in the household and at community level and retain control over most of the household resources and assets. Rural communities are organized on the basis of villages, normally led by a village headman who is assisted by elders. Groups of villages from a common tribe form a chieftain headed by a chief. In the past villagers organized themselves collectively to undertake activities for the common good such as building infrastructure; tribute to the chiefs was paid in the form of food crops, food and drink and labour, organized by the headman. Although this has changed, the chiefs still have a very great influence on all activities affecting their territory and they play a large role in the developments taking place.

Thus, the idea of full participation by communities in development projects is not new in Zambia in the rural areas. However, in the urban areas, it is only slowly coming to the fore. The 'dependency syndrome' still prevails and the expectation that the Government ought to take care of its people is still in many minds. This is not surprising following 80 years of colonialism and close to 30 years of paternalistic socialism. Today, different organisations and donors are trying to change this attitude and it is being seen that communities are willing to contribute financially as long as they are able, and have been consulted and listened to in all the stages of development projects.

Although Zambia is officially a Christian nation and churches have an influential role to play, traditional customs and beliefs have an important bearing on how Zambian society functions.

Initiation ceremonies, traditional ceremonies for the honouring of spirits and natural forces to ensure good harvesting and hunting are used to strengthen the social fabric in the communities. Witchcraft continues to influence people's behaviour and practices, especially in rural areas where it is used to explain misfortunes and is also used to ensure good fortune. Fear for witchcraft guides the behaviour of many people and can often contribute to an atmosphere of suspicion within a community.

### **2.3 Population and settlement**

Over the past three decades Zambia's population has more than doubled in size, from 3.41 million in 1963 to an estimated 7.99 million in 1993. The average annual population growth was 2.7 per cent between 1980 and 1993. If this rate of population growth continues, the population will double in roughly 25 years. Under Zambia's present conditions of widespread poverty a rapid reduction in fertility rates does seem unlikely. Yet with half of the population below the age of 15 years, the dependency ratio is already very high (five to six times that found in developed countries). Dependency ratios may also rise as a result of the increase of adult mortality rates caused by AIDS.

As a result of the population increase, the average population density rose from 4.5 persons per square kilometre in 1963 to 10.6 in 1993. Although this is low by international standards, it conceals the difference between the sparsely populated rural areas and the densely populated urban areas. In 1963 roughly 20% of Zambia's population lived in urban areas. By 1990 this proportion had risen to 42%, making Zambia the second most urbanised country in sub-Saharan Africa (after South Africa). Urbanisation varies considerably between provinces, with 91% of the population of the Copperbelt Province living in urban areas, but only 9% in Eastern province. (cso, 1990).

The government gives priority to developing a modern industrial economy and in doing so neglected agriculture and rural development. This fuelled rural-urban migration, which led to the concentration of people along the line-of-rail, and especially in the capital city of Lusaka which now has a population of 1.3 million. More than half of these populations is living in the so-called compounds which are unplanned and often illegal and are characterised by lack of most basic infrastructure services.

### **2.4 Health status**

In 1992 almost one in two Zambian children was malnourished, with almost 40% of the children under five being stunted. One in five children die before they have reached the age of five, while there is a high incidence of preventable diseases such as malaria, diarrhoea and respiratory infections. A state of the art review carried out in 1994, revealed that there are very strong correlations between child mortality rates and adverse economic conditions, including links with the long standing rural neglect and recent decline in conditions in urban areas. The deteriorating conditions in the peri-urban areas have also caused the urban child mortality rates to rise sharply and in spite of the past urban bias of investment and service provision, they are, in Lusaka, now believed to be among the highest in the country. Other likely explanatory factors that came up are the standard of health care and changing disease patterns like the emergence of AIDS and the resurgence of malaria. (Nsemukila, 1994) The severe malnourishment of the children and the fact that many people are under-nourished, has led to an increase in child mortality rates and life expectancy has fallen to 44 years in 1995 (Unicef leaflet, 1995). The malnourishment is also a major contributing factor to such diseases as measles, acute respiratory infections and chronic diarrhoea.

The KAP studies done by CMMU have revealed that diarrhoeal diseases have been and continue to be a major cause of child morbidity and mortality in Zambia. The number of diarrhoeal cases have been attributed to, among other factors, the consumption of contaminated water, food and unhealthy environmental hygiene and inadequate human waste disposal facilities. In some villages outbreaks of cholera and dysentery are a common phenomenon. Over the past decade in Zambia, cholera has changed from a disease which occurred in isolated episodes to one which is endemic. The main provinces affected are Copperbelt, Lusaka, Northern, Central and Luapula Provinces, but the outbreaks frequently spread into the other provinces as well. In 1992 cholera claimed 1,178 lives out of 15,954 verified cases. Since 1990, dysentery has affected at least 20,000 people and lately even the plague has returned. (UN and GRZ, 1996).

Experience with diarrhoeal diseases confirms that most Zambians are very concerned to protect their own health. It is lack of knowledge, high exposure to diseases, lack of capacity to prevent the diseases which causes the high prevalence of health problems. Less than half of the rural populations has access to sanitation. But even if people have access to sanitation, people's knowledge, attitudes and practices (such as handwashing after defecation) prevent sanitation to result in improved health .

In 1990 Zambia had 82 hospitals and 942 health centres. The weakness of the public health service at that time was a major reason for the falling vaccination coverage, the collapse of malaria control and prevention measures, and the deterioration in case fatality rates. Almost all councils have abandoned vector control , due to lack of funding, which has made avoidance of malaria vary difficult. Since 1992 health reforms have commenced which try to improve equity, access, cost-effectiveness and service quality. Decentralization is a key factor and already the reforms have brought gains in efficiency and service delivery although much still needs to be done. With the introduction of user charges, however, poverty prevents many people to use the health services, thus reducing the equity principle.

## **2.5 Literacy level by age and gender**

The percentage of adults who are illiterate is 33%, of which 66% are women (Unicef leaflet, 1995). The overall quality of education has deteriorated very much and many children are leaving schools illiterate or only semi-literate. Poverty has increased the costs of education and as a result a growing number of children either do not enrol, drop out or are withdrawn by their parents. School attendance in rural areas continues to be lower than in urban areas with only 67% of rural primary aged children in school compared to 84% of urban primary aged children. (Zambia's children in 1995),

The situation of girls' participation in school is significantly worse than boys. Although there are roughly equal numbers of girls and boys in school within the seven to thirteen years age groups, this conceals the fact that girls tend to start school about one year earlier than boys and thereafter drop out faster than boys. Children in rural areas and girl children are worse off in terms of enrolment, and the extent of their disadvantage increases between primary, junior secondary and senior secondary. By the senior secondary level only seven per cent of rural children and ten percent of girls are enrolled.

## **2.6 Environment**

Poverty, underdevelopment and population growth represents a growing threat to Zambia's environment and to its people. In urban areas the most serious environmental threats are due to the inadequacy or absence of facilities for disposal of solid waste, especially in peri-urban areas, where latrines are sometimes located next to wells and can pollute the drinking water. This is a major threat to public health and has contributed to the recent epidemics of cholera and other diseases. Other major environmental concerns in urban areas include industrial emissions, disposal of hazardous wastes, especially in the Copperbelt province where mines and other industries are situated. Although there is a legal framework for environmental protection, there is as yet no policy and no strategies in place for promoting community based conservation and protection.

### 3. ANALYSIS OF SANITATION SITUATION

#### 3.1 *Introduction*

During the workshop on consensus building for sanitation, sanitation has been defined as follows:

**Sanitation is a process of collection, treatment and disposal of human excreta and domestic waste in a safe and hygienic manner (behaviour) which is affordable and sustainable.**

A number of aspects of sanitation programmes make implementation quite problematic and consequently more difficult to support than water programmes and other health related programmes. The first of these critical aspects is the fact that the effectiveness of a sanitation system to a large extent is determined by sanitation behaviour. It is not so much whether people have a latrine, but whether people wash their hands after defecation, whether people dispose of their solid waste in a hygienic way and whether people consistently use their latrine. Counting latrines is easier than changing behaviour. Other critical aspects are the need for consumer demand, the interest for implementation, the availability of technical and logistic support and an extensive hygiene promotion programme. At present, NGOs are introducing these concerns in their programmes in Zambia.

The water and sanitation sector as such gets very little attention, financial or otherwise, but within this, the sanitation sector really is treated as a step child. Various reasons can be given for the low priority for sanitation. It is not considered an attractive subject by anyone, it is often a highly sensitive subject for villagers, community workers and engineers alike, it is far less rewarding, financially and mentally, to market than the supply of water, it is more difficult to mobilise people for sanitation than for water and it also not very attractive from the point of view of the private sector as profits are insubstantial. As long as support for the sanitation sector is as low as it is now, it is highly unlikely that much progress will be made. This in itself indicates the absolute necessity for a well thought out strategy for advocacy at all levels.

#### 3.2 *Coverage*

Rural settlement patterns differ considerably between and within districts. There are villages which consist of a large cluster of houses, but other villages have individual family compounds spread over an extensive area. The settlement pattern has a direct link with interest in and presence of latrines as it is much more difficult to find a private spot for defecation in the clustered settlements than in the others. Although rural sanitation coverage is said to be improved by 8% (from 56% to 64%) between 1991 and 1995, only 43% of these are said to have access to a safe and convenient sanitary facility. This is higher than sector specialist estimate (this estimate is around 12% for rural areas) and there are substantial differences between different districts. For instance in Monze district no accurate data exists on latrine coverage but the NGO

DAPP have found that in the villages where they work, typically just over 30% households have some form of latrine.

Moreover, this coverage does not say anything about actual use. In some provinces people are forced to construct latrines either by their chiefs, the military or previously under colonial rule. These latrines are often not used as people do not see the need for use and do not want to have to dig a new latrine if the 'forced' one is full.

*In Katete district women estimated latrine coverage in their village to be as high as 75% as a result of a food for latrine programme by the NGO Lutheran World Federation. People seem to use the latrines but the construction is not very sound. Therefore the women group thinks interest in sanplats can still be raised.*

A review of WASHE activities in Luapula province shows that a large number of people have access to pit latrines but the problem is that peoples' knowledge, attitude and practices regarding hygiene are still very low. This means that the presence of a latrine and even the use of a latrine may not lead to improved health as hygiene behaviour - and especially handwashing after latrine use - is not practised. In general bush sanitation is regarded as acceptable as long as it is not near the homestead and sufficient cover to hide can be found.

There is no insight in the coverage of sanitation facilities in the peri-urban areas, but it is estimated that less than 40% of households in some of these areas own their own latrine. Yet it seems that most residents do use latrines for defecation as outside defecation is difficult because there are no bushes available and densities are quite high. A widespread practice is therefore the use of the toilet of the neighbours.

*The PUSH programme found that in one compound in Ndola where they carried out a baseline survey, each latrine was shared by 3 to 4 families. Yet the latrine was owned by only one family. The arrangements for cleaning were not investigated*

Traditionally there is a general dislike of sharing a latrine with an unrelated person, but this is set aside in the peri-urban areas. That is, it is set aside by those who do not have their own latrine. Owners of a latrine do not like others to use their latrine, but have no option as it is not acceptable to forbid someone from doing so. Many families may share one latrine in this way, but whether this sharing also includes sharing in cleaning of the latrine, is doubtful.

In general, interest in sanitation improvements in these areas is very low as people do not regard latrine improvements as a priority. This is emphasised by the activities of NGOs who do work on the basis of demand from the community for their activities - sanitation is usually not on the list.

*An Irish Aid project in Kamanga (Lusaka) is offering Sanplats for sale for the highly subsidised cost of K 2000. Despite the high subsidy, demand for these sanplats is very low and only 2% of the households has an improved latrine after 6 years of project activities.*

### 3.3 Latrine technology

In the rural areas, most latrines are the traditional pit latrine covered with mud or sand and grass for roofing. The floor slabs are made with poles or logs which are often eaten by ants or rot resulting in collapse of the latrines. This of course does not stimulate interest in having a latrine. However, there are also types of wood available which are less liable to rot and which ants do not like such as the wood from the muange and nkula tree.

*For example Mukonde village composed of eighteen homesteads has two traditional latrines, three VIP latrines and four collapsed ones. The community asserted that the poor soil profile contributed to the short life span of toilets. The soils in Makonde village are clay loam which tend to crack during the dry season and the onset of rains causes water to sip through weakening the structure leading to collapsing of toilets. The EHT's and the agricultural extension worker seem to be concentrating on numbers rather than on quality of the construction of the latrines*

Pits are usually rectangular and unlined as soil conditions in the districts visited are sufficiently stable to not have lining. In the Western Province, however, pits need to be fully lined as the soil is sandy. Various methods are being used with varying degrees of success. Types of lining are concrete or cement bricks; mawinda mats around a pole frame; vertical branches woven together with horizontal reeds in a cylinder; vertical poles with maize bags tightly around them, all tied around 3-5 'hoops'; anthill soil bricks. In general pit lining methods can be grouped as cement based linings (including bricks and blocks made of local mud); waste product lining (oil drums, tires); local linings (like bamboo) (Blacket, 1993).

The depth of the pits is around three meter. It may sometimes be difficult at certain seasons to dig a pit or to obtain mud for making bricks because the soil dries out so much that it is too hard to dig.

*In Katete the pits are dug by a grave digger which can be seen in the shape of the pit - narrow and long. At the same spot where the pit was dug, also the already completed sanplats were laying. The question on how the round Sanplat plat was going to fit on the rectangular pit was something which the villagers did not see as a problem. They would first make a cover with wood and then put the Sanplat plat on top.*

*This system was also seen in Chipata where the Peace Corps is providing small rectangular sanplats (mould provided by UNICEF), but the Sanplat plats are so small (70 cm by 70 cm) that it is impossible to dig a pit to the size of the sanplat with enough space for the ringbeam with two rows of brick support at the top of the pit. So they dig a larger pit, cover it with wood and put the Sanplat plat on top.*

A problem with the traditional latrines is the difficulty to keep the floor clean as this is usually made of mud or sand. It is very easy for hookworm to remain on this surface and enter the new host through the footsoles. The advantage of the improved latrine with sanplat is that it is cemented and can therefore be easily cleaned with water and a brush to avoid the hookworm in the surface. But the cementing has to be done well and the surface has to be smooth. This is certainly not always the case, many sanplats seen have cracks in the surface or are not at all smooth. Clearly the sanplat promoters

have not been able to explain why the smoothness is so important - they may not even be aware of this themselves. The same applies to the need for the tight fitting cover. In some places the cover is not even made. Yet it is essential as without cover, flies will be abundant and with them the spread of faeces to other places.

Most donors are promoting the Sanplat system because it is cheap, easy to produce and does not need much training. The 'original' sanplat is dome shaped and does not need any reinforcement. The types being made in Zambia do have reinforcement bars as quality control cannot be guaranteed and therefore the non-use of reinforcement is considered too risky. Both square and circular sanplats are produced - depending on the moulds that are available. The sanplats are made in different sizes, sometimes the producers proudly boast about their ability to make as many as four sanplats out of a bag of cement. But the result is a very small sanplat which can only be put on top of a wood covering as it is impossible to dig a pit narrow enough (and at the same time having a depth of more than a meter) for the sanplat to span . By relying on the wood cover, part of the advantage of the sanplat is forfeited - that is its structural strength because the platform is located on top of the ringbeam made of bricks - because the risk of collapse as a result of rot in the wood is then not eliminated. The technical knowledge on latrine construction is not sufficient with either the D-WASHE or even some of the NGOs to find suitable solutions to adverse conditions.

VIP latrines are also promoted by some of the NGOs. Actually, the VIP is thought to be the ultimate best solution for sanitation in rural areas - as can be seen by the material being used in training by CMMU, N-WASHE and NGOs. The VIP is considered the top end of the sanitation ladder. Problem with many of the VIPs the mission saw, is that they are very dark inside which is not necessary . As long as the light at the top end of the ventpipe is clearer than the light inside the latrine, the flies will remain attracted to the top of the ventpipe. Thus, it is possible to have a small window or some space between roof and wall for light. When the latrine is too dark, people can not see the hole and may have a difficulty to keep the latrine clean - it also deters children and adults who are afraid of the dark, who have fear of stepping on someone else's faeces or find a snake in the latrine.

Table 1 on the next page gives an overview of the differences in construction, use and operation of VIP and improved pit latrines.

TABLE 1

<b>Construction or operation criteria</b>	<b>VIP latrine</b>	<b>Improved pit latrine (sanplat)</b>
fly control	If constructed correctly this can be good. Fly screen must be intact and checked regularly	Only works if fitting lid is replaced correctly. If not there is no control
mosquito control	None	When the fitting lid is replaced, they will have less opportunity to enter or escape
smell control	If properly constructed this can work well	Only if fitting lid is always replaced
ease of construction	Must be accurate and uncompromising, needs trained mason	Can be build by household after training
superstructure	Must be relatively dark, ventilated and correctly orientated	Any structure that provides sufficient privacy is adequate
hole cover	Not necessary	Essential, must be tightly fitting
cost	Tends to be higher because superstructure requirements and the vent pipe	Tend to be lower due to minimal requirements for the superstructure
ease of operation and maintenance	Closing door, cleaning and checking of fly screen	Replacing fitting lid after every use
possibility for reuse of slab when pit is full	Usually not possible as floor is cemented and door too small	easily movable for reuse

adapted from I. Blackett 1993

Most schools in rural areas do not have adequate latrines. They are the traditional unimproved latrines and are generally in poor condition. In most schools the community or parent teacher association are not involved in improving the situation of sanitation in the schools. Even where donors rehabilitated the schools they did not include latrines in the rehabilitation programme.

The predominant type of latrine in the peri-urban areas is the traditional latrine, consisting of an unlined pit covered with a slab made of wood with on top soil or a cemented floor. A crude hole has been left open and no cover is provided. Problems mentioned with the existing latrines are the fact that very many collapse, especially in the rainy season, and that there is little technical knowledge on latrine construction, resulting in badly constructed malfunctioning latrines. The superstructure is made of the same material as the house, usually mud blocks, or with reed matting. At present, there is often sufficient space to build a latrine and even to construct a new one when the latrine is full. But it may well be that in a few years, densification takes place and construction of latrines becomes a real problem.

Because the pits are seepage pits, there is a danger of contamination of ground or well water if they are located near the boreholes or wells.

*A mission carried out by the ministry of Health, WHO and Robens Institute in 1994, states that where the underlying soil consists of limestone (as in Lusaka) unlined pit latrines should not be allowed as contamination over a wide area from pit latrines through fissures is highly probable. This mission recommends that pits are lined with concrete or soil cement blocks or an in-situ cast reinforced concrete lining; slabs should be made from reinforced concrete and the latrines should be ventilated according to the VIP technology. As it is realised that such type of latrines are too expensive for the residents of low-income areas, it is suggested that the government gives some kind of financial support in the form of loans and subsidies. However, most sector people met during the mission assess that it is better to promote a type of latrine which could be paid by the residents than to wait for the government to finance such latrines in the compounds - which it would never do anyway.*

VIP latrines are also present in the compounds, but not very much as they are considered too expensive.

*In the PUSH programme the VIP has been promoted by constructing demonstration latrines in public places such as markets and institutions. Residents are given the possibility to get construction materials from the project as an incentive, but despite this, the VIPs are considered too expensive and only 2 or 3 have been built under the programme in most areas.*

Public latrines are found in some areas, but they all suffer from lack of maintenance and pose a health risk to the user. They use the VIP technology, but are so dark inside that one can hardly see even the hole - resulting in faeces being located everywhere in the latrine. The public latrines are meant for public use, that is in public places such as markets and not for residential use.

### **3.4 Cost of latrines**

It has been very difficult to establish the cost of a latrine. The reason being that when people have a latrine, these are completely made of local materials and made by the household themselves. Thus, the pit is dug by the man; the wood for the slab is collected from the surrounding area; the mud is usually available near the house; mud blocks are made by the household (there is often a mould in the village); roofing is made from grass cut in the surroundings.

Most sanplats are made of half a bag of cement (K 5500) and reinforcement steel (cost also about K5000) - the other cost (labour) and materials (stones, sand, mud, reed) are borne by the household and can be avoided by doing the work by themselves. The estimated cost for labour and materials is about K 30.000. When the improved latrines are introduced, people often also want a nice superstructure to go with the 'modern' latrine - even with a sanplat.

The VIP latrine promoted requires one bag of cement (K11000), but there may cost involved in the firing of the mud blocks. People who have a VIP estimated the total cost to be K 50.000 as trained masons are necessary to construct the latrine. For the VIP, a well constructed superstructure is necessary.

One difficulty in the peri-urban areas is the fact that it is much more difficult to obtain construction materials than in the rural areas where most of the elements for a latrine can be found at little or no cost in the environment. This is not the case and therefore the construction of a latrine will involve greater cost. Some of the NGOs are promoting sanplats, others promote VIP latrines - but all are subsidising the construction materials for the latrine or the finished sanplat.

### **3.5 Hygiene behaviour and promotion**

Improved water supply and sanitation is important to improve health conditions of the people. But their introduction does not have a health impact by itself. Good hygiene behaviour is much more crucial, especially handwashing after defecation.. To promote better hygiene practices, many programmes focus on increasing people's knowledge, believing that when people know how water and sanitation diseases are transmitted, they will adopt better hygiene practices. This is not the case. For a good hygiene education programme it is absolutely necessary that people can relate the new information to their own perceptions about sanitation and hygiene.

Most people are aware of the threat of diarrhoeal diseases and know that unhygienic environmental conditions can cause diarrhoea. This awareness has been obtained through the health centre's teachings, EHT's, a few active committees and the radio. In general, hygiene and health education is carried out by either a health worker or EHT or a community development worker. However, a clear focused approach does not seem to exist. In the sub-district health centres hygiene education is also 'delivered' especially if women come to the post natal clinic. The main education is done as crisis management when a cholera or dysentery outbreak is prevalent in the area. This is why people do know about the connection between latrines and cholera and dysentery. However, the possibility of transmission through dirty hands and through pigs who eat faeces and then return to the village, does not seem to be known. Even some EHTs actually did not seem to know the importance of washing hands after defaecation and certainly did not teach about it. The hygiene behaviour that is taught focuses on handling of food and water, the necessity of cleaning racks for utensils and the importance of having a latrine.

Reports from the KAP studies, workshops organised by CMMU on participatory methods and discussions in the field, indicate that most people wash their hands only before and after meals and that too without soap. There is minimal hand washing after using the latrines. People see no need to wash hands after using the toilet if one is not going to handle food immediately. Most women do not wash their hands after attending to their babies following defecation, because they feel that they do not directly handle or touch excreta. People always wash their hands before eating Nshima and also after eating it. This is a traditional habit and practised everywhere, although it may often be more a mechanical habit than really a cleansing habit as soap is seldom used (it gives a bad taste to the nshima). The EHTs and other hygiene educators also confessed that this hand washing does not get much attention during the 'lessons' and that it is seldom done in the villages. There are also in only very few places (WaterAid in Monza) special containers for hand washing organized or made. Soap is generally considered too expensive, especially for hand washing. The use of ash or clean

sand/mud has never been brought up by any hygiene or health educator. They do not seem to know themselves.

Promotion of latrines is usually done by teaching that it is good for health reasons, not on the basis of what makes latrines attractive or unattractive to people.

The most common reasons for not using latrines are:

- do not want to share a latrine with in-laws
- do not want to share a latrine with the opposite sex
- do not want to share a latrine with non- related people
- bad smell
- fears of safety for elderly and young children
- bush is sufficiently convenient
- faeces is food for the pigs
- fear for snakes in a dark latrine
- do not want to be seen using a latrine

*In Monze district, in villages where DAPP works cost, technical know-how and access to materials were indicated as a factor in the low rate of coverage, but some resistance to using latrines is also evident. People can be embarrassed if seen entering a latrine, men are often resistant to sharing with women, and some simply do not see the need to use the latrine when so much bush is available. Consequently, for many people latrines are a not a priority.*

*In Kabunda village in Mwansa District it was mentioned that the culture of using the bush and not latrines is still there especially among the elderly people. They still have a negative attitude towards latrine. To some it is a taboo to even talk about latrines especially where the elderly and the younger people are present together. In this same village women mentioned that they informed their husbands on the importance of having latrines after attending the clinics where they are taught. However, men's attitude towards women's request for a latrine was reported to be "if you want a latrine, go dig it yourself" an obviously impossible suggestion, given the gender division of labour in this society.*

In discussions is also mentioned that latrines are actually dirty places where flies congregate who later fly to the houses. It is therefore deemed more hygienic to use the bush where you do not have this enormous attraction for flies. With respect to the use of latrines by children, it was found that often women encourage their children to defecate behind the houses and not use the latrine. The faeces is collected later on and thrown in the bush. Women rather throw stool in the bush because that does not fill up the latrines and also reduces the smell from the pit. In areas where pigs are found, defecating in the bush is not seen to be a problem as the pigs eat all the excreta. The communities do not seem to realise that these same pigs later return to the homesteads and lick the utensils.

Reasons why people are interested in having a latrine are:

- there is insufficient cover in the bush
- the bush is too far
- the densities are too high

- health reasons, especially cholera
- being modern
- convenience
- able to get one with a subsidy
- ability to take a bath in the (improved) latrine

In peri-urban areas the main reasons for having a latrine are the densities which make outside defecation very difficult, health, privacy and convenience. Reasons for not having a latrine are generally quoted as no space, no funds, no knowledge on technology and availability of use of a neighbour's latrine (also called laziness).

In the rural areas latrine promotion is often done through the threat of a fine by the chief. This is the traditional way in which it was always done, also during the colonial era. The problem with these kind of latrines is, that people often do not use them as they do not see the need and do not want the latrines to fill up because they will have to dig a new pit. The same applies for the latrines which have been constructed under the food for work programme. However, in some villages the 'forced' latrines are being used and the expectation is, that when they are full people are so much used to having them, that they will construct a new one without having to be forced.

*The issue of chiefs giving orders through their headmen to build latrines, dig a refuse pit and dish rack is still common, not only in Luapula, but also in Eastern Province. In a few villages visited in Mwansa district, communities were very busy constructing these facilities as the chiefs were due to inspect them in June. Those without these facilities during the inspection would be fined a chicken and if during the next inspection they still did not have the facilities they would have to work at the chief's fields.*

Apart from the chiefs endeavours to make people build latrines with the threat of a fine, latrine construction is not promoted through local government or leaders. This promotion is only done by or through NGOs. UNICEF has as a rule that with every borehole there must be 20 latrines constructed (10 bags of cement and reinforcement wire are provided). How this is done is left to the implementing NGOs and the D-WASHE. This is working out differently in different districts. In Monze, World Vision trains the water committee in Sanplat plat making, the EHT when working in the same area gives hygiene education and the rest is left to the community. Hence the water committee and friends and relatives get a free sanplat. Whether a latrine is actually built with the sanplat is not certain.

DAPP only provides the sanplat if the hole has been dug and monitors the completion of the latrine. WaterAid gives technical assistance to the construction, while the blocks have to be provided by the household. There is no limit to the number of latrines and builds as long as there is demand and they are working in the village. Monitoring of completion is done. Moreover, these NGOs include the sanitation in their participatory approach to mobilisation and hygiene education.

*The promotion of the sanplat in Mwansa district is done by two women's groups with UNICEF funding as a pilot project. They seem to be having problems of selling the slabs. The communities have no ready cash. A few who have food crops exchange these with the slabs or in most cases were given the slabs free on condition when their harvest is ready they would take*

*it to the women. The women complained that it was not easy to sell the slabs as it meant promoting the slabs, educating the communities on the importance of having latrines and the actual making of the slab, coupled with the many roles they have as women meant that they were not able to cope. The idea of transporting these slabs to the households who needed them was also another problem as they had no transport.*

Monitoring by UNICEF is done on completed sanplats, not on used latrines. How the NGOs monitor is not known, but it is likely to be more on the process. It is also not known how many villagers more than the 20 'free' sanplats have made a sanplat by themselves with their own cement and reinforcement - in other words if true demand has been created.

Latrine promotion is always done in concurrence with a water point. But it is not used as a precondition to having a water point.

The only peri-urban areas where activities to promote hygiene behaviour are carried out are those where NGOs are active. Only Plan (through Irish Aid) and Care have so far been involved in hygiene promotion in peri-urban areas. Care under their (now finished) PERCH project trained community health workers who linked up with the Council public health clinic, while PLAN is training the council health workers on hygiene education in Ndeke compound in Mazabuka.

### **3.6 Solid waste**

The kind of waste generated from households in the rural areas includes vegetable matter and paper and waste from the environment such as dust, ashes, leaves and droppings of livestock. The vegetable matter is eaten by the livestock, the rest is usually disposed of in pits and onto rubbish heaps, where it may be burned or buried. The ash is thrown into the field. Generally, the compound around the houses are very clean, but waste is also thrown in the 'public' space in few areas. Also pits for solid waste may be the result of a chiefs order. Solid waste as yet is not a problem.

This is different in the peri-urban areas where solid waste is one of the big problems and is also regarded as such by the residents. There is no organised solid waste collection system in the peri-urban areas. Where the city councils have trucks, they are not utilised in these areas. In general, solid waste collection is extremely poor in all urban areas: in Lusaka only 10% of all solid waste is collected by the council. Thus, people are left to their own device. This at best implies dumping the waste on plot and burning it, at worst it is dumped in the open spaces where it is left to rot. Generally people do avoid having the waste on their own plot scattered around .

*The Irish Aid project in Kamanga (Lusaka) has a component on solid waste collection. The waste is collected by residents of the area (paid by the community) in wheelbarrows and dumped at the outskirts of the area. From there the Irish Aid truck brings it to an (illegal) dumpsite at a distance of about 2 kilometre. Realising that this is not a sustainable solution, the NGO and the community are presently trying to come up with solutions which do not involve the Irish Aid truck.*

*The PUSH and Care programmes also have a solid waste component. Waste collection 'boxes' are constructed at central points in the compounds. People bring their waste to these boxes. As the council collection system is not functioning, the waste is transported from there to the final dumpsite by project trucks. Also here, it is realised that this is not sustainable and alternatives are being explored.*

### **3.7 Drainage**

In the rural areas, drainage is only an issue in connection with the water point and is usually taken care of (hopefully) in the organization and management around the water point. Generally drainage soakpits or channels are present at all points. As with solid waste collection, drainage services/construction do not exist in the compounds. Waste water is allowed to drain away through natural formed drains in the paths and the water just flows to the lowest point where it infiltrates in the ground or forms a pool of waste water. Drains are usually associated with roads and apart from a few 'main' roads, roads do not exist. The pattern of paths is basically in between the houses and plots in an irregular way. Where a food for work programme has taken place as in the PUSH programme, road construction, incorporating drainage, may have been carried out. After construction, the drains are maintained by the communities. Where public standposts have been provided, also drainage has been addressed and mostly soakpits are constructed. This is satisfactory from the point of environmental hygiene.

### 3.8 Conclusion

Constraints to effective implementation of a sanitation and hygiene promotion programme are:

Technical	<ul style="list-style-type: none"> <li>• technical knowledge on construction low</li> <li>• knowledge on different technology options low</li> <li>• technical support in villages low</li> </ul>
Financial	<ul style="list-style-type: none"> <li>• people in rural and peri-urban areas are very poor</li> <li>• availability of cash is low/non monetary economy</li> <li>• prices for cement are high</li> <li>• prices for transport are high</li> </ul>
Socio-cultural	<ul style="list-style-type: none"> <li>• taboos on sharing latrine with in-laws and non-relatives</li> <li>• bush is considered acceptable</li> <li>• pigs have faeces for food</li> <li>• not regarded as a priority</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• soils not conducive for pit latrines (sand or rock)</li> <li>• densities too high (peri-urban areas)</li> <li>• no municipal solid waste collection from peri-urban areas</li> </ul>
Institutional	<ul style="list-style-type: none"> <li>• lack of support from policy makers down to district level</li> <li>• no clear responsibility between different ministries</li> <li>• no funding available for sanitation</li> <li>• no priority at any level</li> </ul>
Information, education, communication	<ul style="list-style-type: none"> <li>• not sufficient hygiene education</li> <li>• no knowledge on participatory methods</li> <li>• no time for participatory methods</li> <li>• insufficient staff</li> <li>• no follow-up</li> <li>• insufficient logistical support</li> <li>• no clear responsibility for sanitation</li> <li>• no involvement in planning in the community</li> <li>• no selection criteria of beneficiaries</li> </ul>

Positive aspects for effective implementation of a sanitation and hygiene promotion programme are:

Technical	<ul style="list-style-type: none"> <li>• there are many technical options</li> <li>• manuals are produced for different technologies</li> <li>• technologies are not difficult to learn</li> </ul>
Financial	<ul style="list-style-type: none"> <li>• the cost of a Sanplat plat is not very high</li> <li>• most of the latrine components can be found in the natural environment</li> </ul>
Socio-cultural	<ul style="list-style-type: none"> <li>• traditional taboos are disappearing in the peri-urban areas</li> <li>• awareness on the relationship between health and sanitation is high</li> <li>• level of education is increasing</li> <li>• latrine is seen as a modern asset</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• most soils are suitable for unlined latrines</li> <li>• densities are very low</li> <li>• even in peri-urban areas there is often space for a latrine</li> </ul>
Institutional	<ul style="list-style-type: none"> <li>• D-WASHE is a very good concept and is gaining support</li> <li>• D-WASHE is successful in many places</li> <li>• departmental reforms are conducive to activities at village level</li> <li>• reforms make responsibilities clearer</li> </ul>
Information, education, communication	<ul style="list-style-type: none"> <li>• training modules in participatory methods are existent</li> <li>• D-WASHE may make logistics easier</li> <li>• there are examples of successful communication projects for water and sanitation (Norad, Western Province)</li> </ul>

## **4. SANITATION COMMUNICATION APPROACHES**

### **4.1 *Why communication***

Sanitation programmes depend critically for their success on an effective IEC (Information, Education, Communication) component. The experience of the past decade clearly demonstrates that even the best-designed programmes fail or produce meagre results, because decision makers and intended beneficiaries are not adequately consulted, informed, educated or mobilised.

There are many people inside the sector who are now convinced that information, education and communication are necessary ingredients of effective sanitation programmes. They now accept that most sanitation-related problems must be tackled by the people in the villages and peri-urban areas, who must be properly empowered and equipped to take actions themselves.

This means that field workers must communicate more effectively with women, as well as men, in order to involve communities in planning and managing their own facilities and to make hygiene education effective. It also means that technical support must respond to the real needs in the communities.

It has now been agreed that changes are necessary in the attitude and behaviour of the people who make decisions about development priorities to expand coverage, and of the people in the communities. Therefore, there is need to create a communication culture, where dialogue and participation become second nature in sector work.

### **4.2 *What is communication?***

Communication is an instrument for partnership and participation based on a two-way dialogue, where senders and receivers of information interact on an equal footing leading to interchange and mutual discovery. Communication is pivotal in the development process because it caters to the human dimension. Planners, experts and field workers must learn to listen to people about their concerns, needs and possibilities. Policy makers need to be personally contacted to benefit from dialogue and influence decisions. Communication for behavioural change is a complicated process of human actions, reaction and interaction.

Communication involves looking at situations from the view point of other people, and understanding what they are looking for. It means understanding obstacles to change. It means presenting relevant and practical options, and it means telling people what the effect is of the choices they make. Communication ensures that policy makers, partners and communities are committed to projects and helps to prevent expensive mistakes.

People tend to change when they understand the nature of change, and view it as beneficial, so that they make an informed and conscious choices to include it in their list of priorities. Unless their circumstances are taken into account, and their felt needs are met, no effort for change will be successful. People need to be informed and convinced, or they do not feel part of the effort. Involving target populations at every level and stage of development-from identifying problems to finding solutions, from resource mobilisation to project implementation- is critical to the success of any development project.

Recent lessons from international health communication programmes combine valuable experience in social marketing with country experience on social mobilisation programmes, such as nutrition, the expanded programme on immunisation and more recently, sanitation. McKee's work in Bangladesh and other countries has resulted in a useful planning continuum for development communication, in which he classifies and relates a large number of activities under "Advocacy", "Social Mobilization", and "Programme Communication" (McKee 1993). The Development Communication Model in the figure on the next page illustrates how the three components work. Integrated in this figure are a model for behavioural change, Hubley's BASNEF model: Beliefs, Attitudes, Subjective Norms and Enabling Factors (Hubley 1993), and the Community Participation model. Hygienic use of water and latrines and handwashing before touching food depend on daily behaviour of mainly women. This behaviour is influenced by beliefs, attitudes, social pressure and enabling factors.

*Advocacy* consists of the organization of information into arguments to be communicated through various interpersonal and media channels with a view to gaining political and societal leadership acceptance and preparing a society for a particular development programme.

*Social mobilisation* is the process of bringing together all feasible and practical inter-sectoral social allies to raise people's awareness of and demand for a particular development programme, to assist in the delivery of resources and services and to strengthen community participation and self reliance.

*Programme communication* is the process of identifying, segmenting and targeting specific groups/audiences with particular strategies, messages or training programmes through various mass media and interpersonal channels, traditional and non-traditional.

*Community participation* refers to the empowerment of people. The community must engage in some of the following : identify problems, decide how they can be overcome, make plans and seek solutions. It also involves capacity building of communities to organise, manage and sustain services.

Advocacy, social mobilisation and programme communication activities do not necessarily happen in a consecutive order. In general, advocacy begins the process and leads to social mobilisation and programme communication. They work in a "planning continuum".

The concept of dialogue and interpersonal communication should apply throughout a continuum of activities. It is as important for advocacy work with legislators as for hygiene education efforts with villagers. New communication efforts are necessary where a programme lacks some elements in the continuum of activity, whether advocacy, finding of existing knowledge, attitudes and practice, or use of the media.

**Figure 1: Development Communication model**

### 4.3 *Communication planning*

The following steps and questions need to be addressed for planning and implementing an advocacy and communication strategy:

What is the issue? What are we trying to achieve? What behaviour?	ISSUE
Who are the target groups? to whom? Whose behaviour?	WHO
What are the present knowledge, attitude, practice?	KAP
What type of message? Two way?	MESSAGE
Who will help in communication?	MESSENGERS
Field test ?	FIELD TEST
What media? Tools?	TOOLS
What are the indicators for results?	INDICATORS
Cost and budget	COSTS
Revision	REVISE

### 4.4 *Target audiences*

Segmentation of audiences and their communication needs is essential for effective communication. Without understanding the differences among various segments, or sub-segments, it is difficult to design effective messages that call for change. While themes remain the same, the fine-tuning of the message content, the choice of media mix, and the designing and packaging of the messages will vary. The variation will depend on the circumstances in each case. Analysing and taking care of the different sanitation needs of women, men and children is essential. The communication strategy for sanitation should in the long run encompass all sections of society. In the short term priority targets should be those who make and influence decisions: policy makers, sector professionals and users. It is the sector which has to take responsibility for action and play a leading role. During the workshop target audiences, methods of communication, messages and roles and responsibilities were identified.

#### **National , regional and provincial level**

At these levels, people make policy decisions and/or influence development They are an important target group as one reason why sanitation is receiving little attention is because it has not been given any priority at this level. Included in this target group are: politicians (ministers, members of parliament, councillors), professional

associations, educational institutions, donors, service organisations (rotary), business people, high profile personalities, NGOs, churches and the media. To mobilise them, it is important to have data and information that they need to discharge to their respective audiences. They also need to appreciate the importance of community involvement and the need to use participatory approaches for mobilisation and information at community level.

Messages for this target group include:

- telling what it costs the nation if people get sick with dysentery, cholera or another water and sanitation related disease
- cholera does not know class division
- mortality statistics
- percentage of sanitation coverage
- sanitation is a basic human right

Methods to reach the target group (approaches) are:

- seminars
- workshops
- national conference
- discussions
- fairs
- newspapers
- radio/TV
- commemorative days
- press conferences

Roles and responsibilities include:

- include sanitation as development priority
- support planning for sanitation and behaviour changes
- develop monitoring indicators
- facilitate training at all levels in participatory methods of communication

### **District Level**

The target group includes DDCC's, D-WASHE, churches, schools, councillors, local chiefs, PTA's, district staff of line ministries involved in health, water and sanitation, drama groups, professional associations (TBA association), health centres, district level (social) associations. They must be informed of the developments in the water and sanitation sector and the integrated nature of water, sanitation and hygiene education and the necessary elements to effectively work at community level, that is a partnership approach to environmental sanitation improvements at community level.

Messages for this target group include:

- maximising environmental health benefits through integration of water, sanitation and hygiene education
- the importance of hygiene behaviour in combating sanitation related diseases
- examples of how without community involvement programmes fail
- the need to put economic value on latrine use (what it costs to be ill)
- sustainability elements at community level

Methods to reach the target group (approaches) are:

- video
- drama
- posters
- banners
- meetings
- workshops
- exchange visits
- sharing experience

Roles and responsibilities at this level include:

- capacity building for participatory methods of communication
- facilitation of establishment of village committees
- development of monitoring indicators at district and village level (with community)
- priority setting for behavioural change
- make action plan for behaviour change
- monitor behaviour change

It is important that in workshops and training sessions, use is made of the VIPP methods and that the audience is aware of participatory methods of communication and the need to use this at village level if a change of hygiene behaviour is to be effectuated. Separate trainings for D-WASHE members and staff working at village level are of course necessary.

### **Village level**

The people who use the facilities are what this whole effort is about. It is their needs and their perspective which is the most important in programme communication. Their circumstances-economic, social and cultural- must be taken into account in designing any intervention. Communication with communities is necessary for assisting them in the analysis of their own situation, identification of their problems and issues, mobilisation of resources and design of hygiene education adapted to their specific conditions. This two-way communication is the most profound change in the approach and one of the cornerstones for an effective strategy. It is also the most time consuming and the one which can not bear any shortcuts.

The target group at this level include PTA's, drama groups, TBA'S, traditional healers, village committees (including water committees), churches, schools, health centres, chiefs/headmen, NGO's, young farmers clubs, Insaka, extension workers, women clubs etc.

Messages and topics include:

- sanitation and hygiene behaviour (handwashing, food hygiene, dish rack, waste collection, latrine)
- health (risk of cholera, dysentery),
- convenience (easier to have nearby latrine)
- safety (no muggings in the bush)
- privacy (especially for women)
- status (having a home latrine provides status to the family)
- management (how can the village organise best for environmental sanitation).

Methods to reach the target group include:

- participatory methods of information, education, communication
- sanitation ladder
- story with a gap
- village mapping
- three pile sorting cards
- story telling
- drama
- vernacular newsletter
- posters
- leaflets

Roles and responsibilities include:

- establishing an effective village level organisation
- prioritise behaviour changes
- make action plan for behaviour change
- monitor behaviour change

#### **4.5 Existing communication approaches and gaps**

During the field visits and in subsequent discussions the mission found that government staff involved in hygiene promotion and mobilisation use didactic methods of teaching, thus one way communication. Most of the time this is done when there is an epidemic, during which EHT's alert people in the affected areas of the dangers of the diseases. This is usually done through loudspeakers from a slow-moving car and also convening meetings to inform the people. There are also volunteer drama groups made up of young people working under the sponsorship of the local health officials who through their plays, songs spread education messages to the people at market places or any other place where people are gathered.

At the health centres women who attend the under-five clinics get hygiene education, but according to Rogers Ryan's study in 1993 the hygiene education has not resulted in widespread change in terms of personal hygiene behaviour. Although the giving of information does lead to knowledge on certain issues (like the causes of cholera), it often does not lead to change of behaviour and effective use of (for instance) latrines.

The EHT's spend only about 20% of their time on water and sanitation issues and the question is if it is feasible to expect them to start doing things in a participatory way even if they would be trained in it. Participatory methods not only take time, but also necessitate a change in attitude which needs support and commitment from government staff not only at district level but also at a higher level. Experience from Zimbabwe shows that it takes time for EHTs to feel comfortable with the methods and tools and that this appears to be more a matter of confidence than of resistance. The difference in 'comfort' with the methods can be expected in the beginning and emphasises the need to have a comprehensive and supportive follow-up system (Unicef and Directorate of Environmental Health Services, 1996).

With the present restructuring in the Ministry of Health there are plans to have Community Health Practitioners who will basically cover a catchment area of about 300 people. They will be involved in community mobilisation, education and the EHT

will concentrate on technical and other issues. However, the manual of their training does not give much attention to hygiene behaviour and sanitation, and also the use of participatory methods is not introduced.

The mission was not able to get any indication whether community mobilizers and extension workers have been trained in water supply and sanitation issues and this seem to be a gap. In some areas where there are NGOs, they train community members as community mobilizers. When the NGO's pull out support for these community mobilizers is expected to come from the local councils, such as was the case of CARE in Kamanga compound, but this often does not happen and the community mobilizers become inactive, or they cease to function because the incentives are no longer there.

Other gaps identified during the workshop are:

- mass media are not effective
- government staff is not trained in effective, two-way communication
- government staff do not have materials for effective communication
- there is inadequate knowledge of communication needs at the grassroots level
- inadequate communication skills at all levels
- conflicts of interest between politicians and service providers
- unclear institutional framework at village level
- contradiction in training and practice of extension workers
- no priority for sanitation at all levels
- can latrines be promoted without subsidy
- no materials in training colleges

#### **4.6 Communication materials**

The mission was informed that no communication materials on sanitation and hygiene education exist for use at the national and provincial level. The material that was said to be present are leaflets and posters produced by the Ministry of Health, Hygiene Education unit. Very little effort is done at the advocacy level and there is need to enhance this.

At the district level there are training modules used by N-WASHE which were developed by CMMU. They train the D-WASHE using the VIPP methodology. The training modules are good resource materials and reference books to get insight in the training methods used, but they do not provide a resource/reference book for the D-WASHE members. Such manuals however are necessary as during the field trips became clear that the technical knowledge of D-WASHE on hygiene behaviour methods and issues and latrine construction is severely lacking. Recently a module for options for excreta disposal facilities was developed by CMMU for use as a guideline at district level, but this manual could be made much more practical.

Apart from the manuals for use at district level, only few materials have been developed for use with the communities, such as the sanitation ladder and sorting cards. Where NGOs are operational also tools like village mapping village, pocket chart and transect are used. Where available, the NGOs use the materials produced by CMMU. They are of high quality and can be used throughout the country, though adjustment will be needed for use in peri-urban areas.

Excellent materials have been developed at the WASHE programme in Western Province in the late eighties. These materials were designed by the CEP team (Community Education and Participation) and deal mostly with water related topics, but basically are designed to enable the CEP team to communicate effectively with the villagers. They included unserialised posters, stories with a gap, open ended stories, posters sequence, poster sorting exercise on sanitation at home and bilharzia and songs. It is unclear whether these materials are still being used either in Western Province or in other provinces. If not, they can easily be reprinted as they are very good participatory tools.

The materials which have been developed in Zimbabwe in the Participatory Hygiene Education project can also be assessed to see if they can be used in Zambia - the countries being so similar in culture.

MMU has plans to produce manuals in:  
Participatory Rural Appraisal (PRA) methods,  
Gender issues,  
Logistics,  
Financial Management,  
Hydrological Surveys,  
Masons,  
V-WASHE ,  
Area pump mechanics,  
Village cashiers,  
O & M

The mission feels that care should be taken that these manuals are sufficiently practical and ready for use without too much explanation. Also, reinventing the wheel is not necessary, so an inventory could be made of materials in existence in neighbouring countries which may be easily adapted for use in Zambia. To a large extent, the materials are not the key issue, but it is the training and support of the staff that has to work with the communities that is of the utmost importance.

#### **4.5 The water, sanitation and health education (WASHE) approach**

A large number of government institutions, donors, NGO's and private sector are involved in RWSS sub-sector. Development and management is split among various ministries, departments and district councils. The division of roles and responsibility is not always clear as availability of resources often dictates as to who plays the active role. This lack of clear definition and responsibilities of the actors in RWSS sector resulted in uncoordinated approach to the provision of water and sanitation services. Experience has shown that working in isolation by different departments, donors, NGO's will not achieve the desired goals.

The NORAD funded DWA/ WASHE Programme in Western Province where a Community Education and Participation team with members from four ministries established WASHE committees at district level provided a model to build national collaboration and cooperation among actors. Thus, WASHE committees at district level are presently being established with the objective to develop sustainable water supply and sanitation through health education with the use of participatory

approaches at all levels. To help the WASHE concept and approach to be adopted in all districts, a National WASHE co-ordinating and training team is established whose duty is to advocate and promote the concept through capacity building in terms of decision making, planning and maintenance at all levels (district, sub-district and community). WASHE is a relatively new concept and started at the level of the district and has yet to go to the village level.

### **District level**

At district level D-WASHE committees are established in 20 districts and are operational in 15 districts. A programme of training for the operationalisation of D-WASHE committees is currently being undertaken by National-WASHE with the guidance of the CMMU modules, designed for this purpose. This training programme is carried out through participatory workshops and meetings. The objective of these workshops are:

- To enhance deeper understanding of water and sanitation situation in the district
- To develop commitment and forge partnership among the actors towards a district goal
- To develop a programme that emphasises capacity building leading into establishment of sustainable WASHE programs.
- To introduce participatory methods of work

### **Sub-district level**

At sub-district level training has been carried out in some sub-districts in Luapula province for EHT's in participatory hygiene education methodologies. CMMU also trained EHT's in some districts of the Northern province. N-WASHE held workshops with other staff at the sub-district level in the 5 districts in Northern province, looking at broader aspects of the WASHE concept and how the sub-district level can link with the D-WASHE committee. In addition, introduction courses have been held for Training of Trainers on community management and participatory methods. It is expected that the trained trainers will continue training the D-WASHE. However, these training efforts seem to be rather ad-hoc and ill-planned, especially bearing in mind the limited capacity of the N-WASHE. It would be advisable to make a training plan together with the D-WASHE and the local authority per district to ensure that at least key people are trained and follow-up support can be given.

### **Community level**

At present government efforts (thus N-WASHE and government staff) for promotion of sanitation and hygiene education at community level in the framework of the WASHE are not much developed. Whatever is carried out at this level is done through NGOs, who often do work with government staff. The intention is to promote the establishment of V-WASHE at community level with the aim to be:

- the community focus point for all activities to do water, sanitation and health education
- the community elected body that assumes overall responsibility for liaison with extension services and outside agencies that may wish to work with the community on WASHE projects
- the community focus for the promotion of health and hygiene activity and advocacy for behaviour change
- the community institution that will mobilise the community to undertake community management functions in terms of hardware resources and software

- activities - this would include operation and maintenance tasks and supporting the promotion of health and hygiene messages as part of daily village life and so on
- the communication point with the D-WASHE committees although in reality this will be probably be through the extension services who may act on behalf of the community.

At the village level (and also in peri-urban areas) there tend to be many committees for different purposes and it is often difficult to distinguish them as the same people are likely to be seated in the committees. Instead of creating new committees it is better to work with an already existing active committee.

At community level the N-WASHE approach is to see the establishment of community based operation and maintenance systems which are critical to the sustainability of the water and sanitation programme. The D-WASHE are currently involved with the establishment of village based WASHE organisations and pump mechanics at the village level. In the southern districts UNICEF is training and equipping village level institutions as a first step towards a community based operation and maintenance system. These tools will be available to all pump mechanics in the area. The D-WASHE is mandated to ensure that the training of these mechanics is carried out.

In principle the activities at village level are meant to make use of all participatory mobilisation methods such as village mapping, sanitation ladder, sorting cards. To do this well, several days are needed in one village and follow-up sessions and visits are needed to help the villagers through the process of electing WASHE organisations, dividing of tasks, setting of priorities etc. In reality, this is not happening as there are insufficient local government staff to do this and they are also not (yet) trained. There needs to be a very detailed planning at D-WASHE for the logistics and manpower for this kind of approach.

#### **4.6 Approach of non-governmental organisations**

##### **WaterAid**

WaterAid Zambia Programme is focused in the Southern province and works through the Ministry of Health. (Water Aid does not do actual implementation but works through partner organisations and gives technical advice). The Monze WASHE Project, supported by WaterAid is implemented by Environmental Health Technicians (EHT) at 12 rural health centres. At each site a baseline assessment is carried out and V-WASHE committees are formed before the EHT approves support for water and sanitation. Each V-WASHE committee is encouraged to nominate two persons to be 'health motivators' who will promote care of the water point, latrine use and basic hygiene. These health motivators and the V-WASHE chairmen are invited to attend a hygiene education workshop run by the EHT with assistance from WaterAid. Staff training is an important part of the project and covers both 'hard' aspects as well as software including participatory techniques for hygiene education and community mobilisation. Managerial advice is also provided, especially with planning and the development of effective systems of work.

##### **Irish Aid**

Irish Aid is operational in several cities in Zambia and has selected a number of compounds for their activities. A major emphasis in the projects is the establishment of sustainable services through a process of community participation and capacity building. Decisions on activities to be undertaken are based on the priorities of the communities. Considerable effort goes in to building of community capacity and empowerment of the community. It has been very difficult to get away from the focus on objectives expressed in terms of provision of community facilities and infrastructure and the emphasis on project implementation and to find a way where the project implementation is seen as supportive to the process of community strengthening. This takes more time than initially was anticipated. In all project cycles use is made of participatory methods of planning and decision making. Not much, however, is done in sanitation as this is not a priority for the residents, while hygiene education in the project was not given by Irish Aid but another NGO, who in turn trained the community health workers.

### **Development Aid from partner to partner (DAPP)**

DAPP approaches its target group through a hierarchy of groups. At the bottom is a group of 10 - 15 families, who select a leader. Then 150 families (thus about ten leaders) have a zone leader. A sub-area consists of 750 families. All community mobilisation starts at the lowest level. Initially, latrine promotion was not very successful as each zone would get and have to have 30 latrines. The distributions was a problem and the latrines were not finished. Now, the people get the cement only when the pit is already dug.

Every two months there is a seminar for group leaders on different topic. They are then expected to talk about these same issues to the families in their group. The zone leader acts as back-up system together with DAPP staff. The zone leader and the EHT are involved in hygiene education. Sanitation is not a major issue in the DAPP project, as it is focused on agricultural improvements. But presently, DAPP is involved with water and sanitation with UNICEF funding.

### **Care**

Care Zambia is involved in urban self-help projects carried out in 4 compounds. Initially there was a food-for-work programme involving infrastructure improvements which included local institution building, establishment of water systems (in 2 compounds), business and empowerment training and a savings-and-loan programme. The programme promotes the formation of democratic area based organisations and other CBOs which take ownership for most developments. The project begins consultations with a large cross-section of invited leaders and stimulates meetings which are open to everyone. A volunteer group is formed to initiate zoning, in which residents demarcate the compound into zones of approximately 175 households, along lines that are logical to them. Meetings are then held by volunteers at zone levels, which consist of mini appraisals of how residents see their problems, what developments issues are important and to discuss plans with them. Then a zone development committee is elected, with Council and Care staff involved. Participation is promoted through various means. In meetings problem posing approach is used to stimulate residents to take ownership and responsibility, drama is used and various participatory methods. The project has water supply and solid waste disposal as components, but not much latrines as this is not seen as a priority by the residents.

CARE is also involved in rural areas where they promote water harvesting and utilization activities which are also based on the same principles as the work in the peri-urban areas.

#### **4.7 School sanitation**

It may be difficult to reach adults directly for IEC purposes, but schools provide a way of eventually reaching the whole of the population at an early age reaching children before habits have been ingrained too much for change. A health programme in schools should at least have topics in health education and a healthy school environment. This can be reinforced by external influences such as support from parents, public education and primary health care services, while also school health services such as vaccination and preventive and curative treatment and first aid would be an advantage.

The environment of a school is important for the health of the child, but it is also has a function as a demonstration of what, for instance, latrines are, how they function and why hygiene behaviour such as handwashing is important after latrine use. This is why latrines in schools must be clean and properly maintained and open for use to all children and why handwashing possibilities have to be present near the latrines. Due to time constraints, the mission did not look at school sanitation and hygiene education materials but was informed during discussions and field visits, that generally schools have inadequate latrines which are preferably not used by any child or teacher. Water for handwashing is seldom available and hygiene behaviour is not stressed in the schools at all. It has even been mentioned that some schools which are being rehabilitated with donor funds have not included the construction of latrines in their plans.

School sanitation/behaviour does not seem to be regarded an issue at any level - this needs a lot of advocacy activities.

Hygiene education has been given as part of the curriculum of home economics, but already in 1995 there were plans to include hygiene education in the full scope and sequence of all classes offered (Rogers Ryan, 1995). The Education Broadcasting Outreach (EBS) which used to support formal classroom teaching with radio lessons in all the subjects covering health and personal hygiene education, environmental science, home economics, social studies and the environment ceased functioning due to lack of funds and radios disappeared from the schools.

Hygiene education can also be given as a separate lesson or project. These sessions can include classroom activities and practical activities in the community., such as making a survey on the number of latrines in the community. The child-to-child programme encourages children to undertake community projects and older children can be involved as health guides and teach the younger children. This is called peer teaching and is usually very effective. Pupils also are encouraged to perform plays, mimes, read health education focused poetry and tell stories which convey health messages. The child-to-child approach has been introduced in about 10% of the schools in Zambia and is still at a pilot stage.

Another way to introduce hygiene education to school children is through out-of-school activities such as health clubs and scouts - no examples of this have been found in Zambia.

If schools are giving hygiene education, this is always done using traditional approaches that over-emphasise learning facts and passing exams. But in hygiene education the focus should be to equip children to make decision, explore attitudes and values and adopt healthy practices now and in their future lives. Recent approaches in school health education based on this focus are:

- child centred approach
- active learning methods
- problem solving or issue based
- decision making methods
- peer teaching methods
- self-esteem enhancement and
- teacher based approaches rather than relying on external visitors.

School health and sanitation is the focus of much attention in the past years, so more and more information is becoming available. For the development of this section in the sanitation strategy, experiences from other countries should be taken into consideration.

WHO/AFRO/NORAD have plans to support 10 schools in building latrines, drinking water and dissemination of pertinent health education materials. However, the budget for this is too small and it would be useful if ways could be explored to involve the community.

Two five day workshops on training of trainers on the use of WASHE materials have been conducted for inspectors of schools, College lecturers and teachers drawn from North Western, Northern, Copperbelt, Luapula, Eastern, Western, Central, Lusaka and Southern provinces in July and August 1996. The purpose of the workshops was to introduce participatory approaches to the participants at all levels of operations and to:

- train the trainers in the use of WASHE materials
- implement the integration of WASHE in the school curriculum
- produce teaching and learning materials
- promote school community linkages in WASHE activities.

However, those trained have not had chance to train other teachers because of lack of funds.

## 4.8 Conclusion

For sanitation improvements to be worthwhile and long lasting, peoples behaviour must change. People do not normally change the practices they have always followed unless they are convinced there is a good reason to do so. Of course, the threat of fines by the chiefs may appear to succeed but once the threats are removed, the old habits would re-emerge. A successful sanitation programme must effectively communicate with people educating them about the connection between poor water, sanitation, hygiene practice and disease and why changes are needed, which is the knowledge. They cannot just be told there is a connection. They must understand how flies, hands, food and the soil and water are able to make them sick. They must then learn that improvements are possible and what is required. Having learnt this, they need to desire the improvements and change. They must accept that these changes are possible, and that they can implement these changes themselves which is acceptance and finally they must desire to make the changes. Normally all these processes require time, patience, and persistence before people begin to desire change.

It is clear that these principles are adopted by all NGO organisations who are active in the field and they are doing their utmost to ensure that the governmental counterpart staff are also involved in their training as much as possible. However, the government departments operating at district level and above, have more difficulty in adopting these principles. Didactic methods are the traditional way of teaching and all staff at field level are taught to teach this way. The recent focus of using participatory approach in water and sanitation projects is new for both the government and NGOs. Thus, on-the-job training of the participatory methods is a very good way of doing it. But this needs commitment from the district authorities and also needs their consent in making the staff time available. Possibly one of the aims of advocacy should be to increase the number of extension workers and their logistics support so as to enable them to spend more time in the field.

The mission thinks that it is good that different systems of promotion are also explored and tried out but they should be streamlined so that the communities do not get confused. The D-WASHE have a great potential as channel of communication and to ensure streamlining. But there is a need for strategy development and priority setting, based on the experiences gathered so far, both in the D-WASHE and within the communities. During the workshop was mentioned that the report emphasised the WASHE concept and the D-WASHE too much and did not give any attention to activities outside this framework. This is correct as the mission has not been able to find out about any activities outside the WASHE. It seems unlikely that there are much activities as almost all water and sanitation sector activities in rural and peri-urban areas are carried out through and with donors while the government of Zambia focuses on the development of the development of commercial utilities in the towns and cities.

During the workshop a plan of action was made for the development of communication in Zambia. which incorporates:

- an agreed overall approach to communication
- a working definition of communication related to sanitation
- identification of target groups with appropriate approaches and tools

- review of existing approaches (materials in use, gaps, areas in need, potential areas-tools and materials)
- focal institutions and individuals
- development and pretesting of materials

The mission feels that specific focus should be on the availability of staff, time and training as these form the basis of a new framework. That means that the government has to show commitment to these approaches - without this development of materials is useless. Thus first priority may well be advocacy to get the government to see sanitation and hygiene education as a priority and to commit themselves to the development of a new approach.

## 5. LEGAL AND INSTITUTIONAL FRAMEWORK

### 5.1 *Legal framework*

The Water Supply and Sanitation Sector is presently undergoing reform activities in the general context of the Public Sector Reform Programme where devolution of power from central government to local authorities and improved efficiency and effectiveness of the public sector, are central issues. The reform was launched in 1993 with the objective to:

- restructure and rationalise the size of the government
- introduce improved organisational and personnel management and accountability systems
- to decentralise decision making authority and control over resource allocation and utilisation from central government to the districts and local authorities as well as to strengthen capacities in local authorities.

The legal and institutional framework for the reformed water supply and sanitation sector is to be established through the Water and Sanitation Bill. This bill was expected to be enacted by August 1995, but has so far (June 1997) not been passed. Presently, the responsibilities of the council (district, city or municipal) are laid down in the Local Government Act 1991. Of importance to sanitation are the following functions:

- to establish and maintain environmental health services
- to establish and maintain sanitary convenience and ablution facilities, and to require whenever necessary the establishment and maintenance of such facilities
- to establish and maintain sanitary services for the removal and destruction of, or otherwise dealing with, all kinds of refuse and effluent and compel the use of such services
- to establish and maintain drains, sewers and works for the disposal of sewerage and refuse
- to take and require taking of measures for the drainage of water
- to require and control the provision of drains and sewers and to compel the connection of any drains and sewers established by the council.

For the purpose of this situation analysis, relevant stipulations in the Public Health Act, which are now incorporated in the Health Services Act 1995 and applicable in rural and urban areas, are the following:

- new buildings must be provided with a latrine
- if latrines can be accommodated in such a place that it may be used in common by residents of two or more houses, this can be allowed
- the Local Authority shall require an owner of a house without latrine to provide proper and sufficient latrine accommodation, so situated as to be conveniently accessible to the residents of the house
- if a latrine used in common with several houses is fouled, the person is guilty of an offence
- no latrine other than a WC is allowed to be constructed within 200 feet of a sewer
- no latrine other than a WC is allowed to be constructed inside a house
- a latrine has to be protected against the entrance of flies in the pit

- pit latrines are not to be constructed without permit of the Local Authority

In addition to these acts, there is the Village Development Act and the Environmental Protection and Pollution Control Act which provide a legal framework for environmental sanitation. Also the Food and Drug Act has stipulations which cover aspects of sanitation. However, the mission has been unable to get hold of a copy of these acts and can therefore not quote sections of importance for the strategy.

## **5.2 Institutional framework**

The reorganisation of the Water Supply and Sanitation Sector is based on seven sector principles which were adopted by the government in 1994:

- separation of water resource management from water supply and sanitation
- separation of regulatory and executive functions
- devolution of authority to local authorities and private enterprises
- full cost recovery in the long run
- human resources development leading to more effective institutions
- technology appropriate to local conditions
- increased government priority and budgetary allocation to the sector.

The reform process is being led by the Programme Co-ordinating Unit (PCU). Three separate organisations have been established as executive arm and support of the PCU: the Water and Sanitation Development Group (WSDG), the Community Management and Monitoring Unit (CMMU) and the national WASHE Co-ordination and Training Team (N-WASHE). Although working in close collaboration, these units have been developed and are operational as individual units.

A new institutional framework for the WSS sector has gradually been elaborated and is contained in the document 'Proposed strategy and institutional framework for the Water Supply and Sanitation Sector'. The framework has been widely accepted by the stakeholders as a way forward for the sector. Basically the framework implies establishment of a regulator in the sector and establishment of autonomous commercially viable water supply and sanitation utilities. The involvement of the private sector is through partnership programmes i.e. concession management contracts, BOOT schemes and equity participation through purchase of shares of up to 49% of the total shares. The draft Water and Sanitation Bill has been prepared and submitted to the Ministry of Legal Affairs. Of importance for the present situation analysis are the following proposals for the reorganisation:

1. The National Water Supply and Sanitation Council (NWASCO) is going to be a permanent statutory body which will regulate the water supply and sanitation sector through the issuing of licenses. Its envisaged functions include licenses to all those who provide WSS services; advise local authorities on viable institutional arrangements for utilities; develop sector guidelines; establish and enforce standards and ensure consumer protection.
2. The secretariat of the PCU is now vested in WSDG for urban services and CMMU addressing rural water supply and sanitation, while N-WASHE is also involved in the development and elaboration of strategies to support ongoing reform. These

institutions will merge to form the Reform Support Unit (RSU) to form the secretariat of PCU.

3. The executive (operational) functions of water supply and sanitation will be transferred to Local Authorities under the overall supervision of the Ministry of Local Government and Housing (MLGH). Local councils are encouraged to form commercially viable water utilities, either alone or with other councils.
4. The Department of Infrastructure and Support Services (DISS) under MLGH will monitor and co-ordinate investment in the sector. DISS not only covers water supply and sanitation but also other municipal functions like roads and markets.
5. As an initial step pilot programmes are being carried out to establish Commercial viable water supply and sanitation utilities

### **5.3 *Implementing actors in rural and peri-urban water supply and sanitation***

#### **Water Sector Development Group (WSDG):**

The tasks of the WSDG as the implementing agency for the water sector reform are to develop the policies and strategies for institutional restructuring of the water supply and sanitation sector; to make national investment plans for the rehabilitation of water and sewerage infrastructure; to develop financial systems and procedures; to develop policies to establish regulators, streamline administration and assist in the decentralisation of functions to local authorities. Basically the idea was that WSDG operates in the urban sector while CMMU carries out similar tasks in the rural sector. However, the division of tasks has become more based on commercially based services versus community based services. Thus, WSDG focuses on the strategy and policy development in relation to the Commercial Utilities and the development of these utilities in individual towns or groups of towns, covering both water supply and sewerage. Sanitation in peri-urban areas does not belong to the WSDG domain unless there is a sewerage. On-site sanitation is considered an individual responsibility, its promotion falls under the community based services, hence in the domain of the CMMU.

#### **Community Management and Monitoring Unit (CMMU):**

The CMMU was established before the WSDG in 1993 with the aim to develop policies and strategies for the improvement of rural water supply. They have concentrated on the development of methodologies for providing support to community based activities and have developed manuals on technologies and modules to introduce WASHE at district level as well as tools for participatory community mobilisation and hygiene education. These manuals and tools can also be used in peri-urban areas, possibly with minor revisions. Furthermore the CMMU has been involved in the establishment of D-WASHES in the districts before the N-WASHE was created, while also training has been carried out to assist the D-WASHES in preparing the district development plans.

An inventory of all water points in the rural areas was carried out to form a basis for the strategy development.

**N-WASHE:**

To promote WASHE country wide, National WASHE co-ordinating and training team (N-WASHE) was established in 1996. It works in close collaboration with WSDG and CMMU and enhances the dissemination of national water policy and sector reforms. N-WASHE facilitates the formation and establishment of D-WASHE through a series of participatory workshops and meetings. It furthermore conducts workshops and training in order to enhance knowledge on the WASHE concept in the districts and has started to carry out training of trainers with the aim to have facilitators at district level who can in turn conduct training for extension staff and community groups. A review of the N-WASHE co-ordinating and training team held in January 1997 revealed that the team has done tremendous work in Northern, Southern and Eastern Provinces, meeting the specified targets to establish D-WASHES in the districts. However, under the pressure of doing so, there was limited scope to support the D-WASHES in the district development plans, which consequently are of poor quality. The review team recommends that N-WASHE spends more time on building the planning and management capacities of districts, especially during the early stages when the D-WASHE committees are still new. Guidelines for the districts for making development plans need to be made, including a monitoring system which involves the province and also incorporating more participatory techniques than the present VIPP and sanitation ladders. Also, N-WASHE needs to develop a strategy to enhance local capacity to carry out health and hygiene education at community level, in order to reduce dependency on international NGOs for these activities.

**Proposed Reform Support Unit (RSU):**

The PCU through its new secretariat the RSU, will facilitate the reform process providing support for the establishment of the Commercial Utilities (CU) and the D-WASHE committees and developing strategies for support. The core functions of the RSU will be:

- policy, regulation and guidelines
- human resource development and training
- publicity and advocacy
- technical Support
- collaboration
- gender
- monitoring
- management of change

**Ministry of Health:**

The Ministry of Health has developed and implemented decentralisation and reform measures more than any other ministry. At national level the ministry formulates and develops strategies and policies, while the Central Board of Health is responsible for facilitating and supervising implementation. All implementation is carried out at district level - the reforms are aimed at bringing the management of health services as close as possible to the service deliverers. Thus District Health Boards are created to which financing for health in the district is channelled. The boards are responsible for the preparation of annual and long-term plans for health services. The sub-district level planning is based on a health centre catchment system in which each centre oversees the delivery of health services in the area. Neighbourhood health teams are created for the promotion of good health standards among the communities. The aim is to have one community health practitioner per 300 people whose task will be

promotive, preventive and curative - the curative only consisting 20% of the activities. At community level the establishment of neighbourhood committees is proposed with the aim to promote and contribute an increased sense of ownership and responsibility by the community for the health services and care in the neighbourhood to improve their own health status.

Water and Sanitation is one of the 6 thrusts of the MoH - which means that it gets extra attention. Presently, Environmental Health Technicians (EHT) in some districts are co-operating very closely with members of the D-WASHE committee and in these activities carry out hygiene education with water committees. However, the EHTs only have one day a week for water and sanitation activities, while the rest of their work consists of curative practices and work connected to the clinics. Moreover, they have not been trained in participatory approaches to health and hygiene education, which means that their messages are given in a directive way which is unlikely to show much result in terms of change of behaviour. Also, the catchment area per EHT is so large that there is no scope for regular return visits to a community to check progress and assist where difficulties have arisen in terms of management of water points or the construction of latrines. The hygiene and health education sessions focus on the management of hygiene around the water point, the need for pits for solid waste, drying racks for utensils and the construction of latrines. It does not cover handwashing practices which are even more a determining factor in improvement of health than construction and use of latrines. In the towns, the EHTs are to a large extent only active in supervision of sanitary conditions in public places such as markets and restaurants and checking on the quality of meat for sale. They hardly deal with water and sanitation issues.

Where NGOs are present and the D-WASHE is active, EHTs seem to be more motivated to get involved in the WSS sector as they receive logistical support and on-the-job training in participatory methods of communication and hygiene education.

#### **Ministry of Community Development and Social Services:**

This ministry is in charge of community organisation and the promotion of income generating activities and the strengthening of women's programmes in the rural areas. It is not clear to what extent the community development workers play a structural role in WASHE. But they are involved in crisis management activities such as during a cholera outbreak. At district level, this ministry does not have much funds which makes it difficult for the staff to get around and be active. It also seems that the staff of this department are less qualified than the staff of MoH, are therefore less paid, have little logistical support and find it difficult to function in a group as WASHE. They are never trained in participatory methods for mobilisation.

#### **Ministry of Education:**

This ministry is responsible for curriculum development in schools for environmental sanitation and health/ hygiene education. At present this is incorporated in the home economics course. The child-to-child activities supported by Unicef in schools in the country are within this ministry, these could be targeted for promotion of latrines and hygiene behaviour. Teachers moreover can become active promoters of hygiene behaviour and should be involved in the activities taking place in the communities - possibly through PTA activities. A major requirement for schools in terms of promotion of sanitation is that they have to have an adequate sanitation systems with sufficient latrines for the children and teachers. These latrines should be kept clean

and facilities for handwashing should be near the latrines. This, however, is very often not the case. Instead of the latrines being a promotion asset showing the feasibility, convenience and health aspects of sanitation facilities, they are dirty and smelly places which demonstrate why you do not want to have a latrine.

**The District Water, Sanitation and Health Education Committee (D-WASHE):**

Under the sector reforms, activities in the WSS sector are as much as possible delegated to the district level. This means that the establishment of District WASHE committees becomes important as through these committees the activities of the different departments/line ministries in the WSS sector at district level can be co-ordinated. The D-WASHE is a sub-committee of the District Development Co-ordinating Committee (DDCC).

The functions of D-WASHE are:

- to provide a forum for dialogue, collaboration and co-ordination on WASHE programmes/activities between line departments, donors/NGOs and local authority in the district
- to assess and analyse the WASHE situation in the district
- to receive and recommend requests on WASHE programme in the district as per assessed situation
- to receive physical and financial reports on programmes undertaken in the district, especially those implemented through D-WASHE
- to develop a district WASHE development plan for consideration and adoption of the DDCC
- to co-ordinate the provision of technical assistance/donor finance and national support to the district
- to facilitate sub district participation in planning
- to prepare consolidated report on WASHE activities for the DDCC
- to establish and maintain a data bank

The membership of D-WASHE is basically by interest, but it is recommended that the following people are included:

- director of works/engineering
- district planning officer
- district agriculture officer
- deputy director of planning and programmes
- district water engineer
- district education officer
- district social development officer
- donor/NGO representatives
- women representatives

Linkages between the DDCC and D-WASHE are strong in some districts but weak in others. In some districts the DDCC is not functioning which of course also makes it difficult for the D-WASHE to be operational. Moreover, DDCC are not always informed sufficiently and effectively about the concept of D-WASHE and consequently do not support it. Thus advocacy on the D-WASHE concept is necessary at district level, not only with the DDCC but also with the local authorities and departments of line ministries (such as ministry of health). Only when all management staff at local authorities realise the importance and possibilities of the D-

WASHE also for their own functioning, will it be possible to get the support which is needed for its effective operations.

The functioning of the D-WASHE is to a large extent determined by the seniority and position of its chairman and members. Usually, it is not the department heads who are attending the meetings, but more junior staff. Although in some districts the decisions of the meetings are claimed to be binding, this is difficult to actually apply if the department heads do not agree. Consequently it demotivates the committee. This situation may also arise where provincial and district staff are located in the same premises. Although D-WASHE is a district committee and therefore of no concern to the provincial staff, experience shows that lack of support from provincial staff in such cases may interfere with the functioning of the D-WASHE. Again it shows the need for advocacy and information about the WASHE concept, even at provincial level and possibly a monitoring role for the provincial level to assure their involvement.

At present, there are 20 D-WASHE established in the country. Since funds for water and sanitation activities come to a very large extent from donors, the D-WASHEs are (as far as the mission knows) established in those districts where donor funded projects are being carried out. The presence of NGOs usually strengthens the D-WASHE, but that is not a decisive factor in the functioning. The mission has the impression that the training of the D-WASHE as currently carried out by N-WASHE at the time of establishment of the D-WASHE needs to be followed up by a more practical training, especially in latrine construction technology and on hygiene education with a wider perception of hygiene behaviour, and especially handwashing. Focus with the committees has been very much on the provision of water and only lately sanitation activities have started to be incorporated. Although the water supply activities are usually promoted through hygiene education activities, these tend to focus on water issues and management of the water point. There also is also a need to make regular follow-up visits to the D-WASHE to help them overcome hurdles in functioning. Visits from D-WASHES to each other may be a good tool improve functioning. As the D-WASHES are relatively new, monitoring and evaluation of their functioning is necessary especially in view of the decentralization in the sector and the development of the sanitation strategy in which they are expected to take an important role. More focused assistance is necessary for the development of the district WASHE plans.

#### **Non Governmental Organizations (NGO):**

There are quite a number of NGOs involved in implementing water and sanitation activities both in rural and in peri-urban areas. They each have their own approaches - which usually are community based and make use of participatory approaches for mobilisation. Donors such as UNICEF may channel their funding for WASHE through an NGO - as is the case with DAPP and World Vision in Monze district. NGOs always co-ordinate with the D-WASHES where these exist and in the places visited during the field trips, the NGOs were all involving local government staff (EHTs or community development workers, agricultural extension workers) in their activities as much as possible. In some D-WASHES NGOs have a very strong influence which may have a positive influence on the functioning and development of the district plans, but can also have the effect of removing the sense of ownership from the local institutions and thus making sustainability in the long term questionable.

Many NGOs ( such as DAPP, CARE, Irish Aid) work with the philosophy that the target communities in which they work establish the priority areas for intervention. This usually means that sanitation is not on the list and the result is that unless specifically contracted to carry out sanitation construction (DAPP, World Vision in Monze district) or having water and sanitation as focus (WaterAid), most NGOs are not actively involved in sanitation promotion or have knowledge on different types of on-site sanitation technologies and hygiene behaviour promotion.

NGOs are also active in water supply and sanitation activities in peri-urban areas, the so-called compounds where an estimated 60% of the urban population live. This is done in collaboration with the local authorities , who are often not able to extent services to these areas due to either limited availability of funds or because the areas are illegal. In the NGO projects (such as Care and Irish Aid projects) in the peri-urban areas, collaboration with the councils is visible in the provision of land for overspill from the compounds when regularisation and provision of services required people to move from the original area. Also, hygiene and health education is given in co-ordination with either health staff or community development workers. However, capacity within the local authorities to work with the NGOs is limited especially in terms of community mobilisation and sensitisation.

The NGOs work on the basis of community priorities and usually the only sanitation priority is the collection of solid waste. Thus much effort is being done in organising the communities to 'help themselves' in this respect as solid waste collection by the local authorities is not carried out in the compounds. Issues of final disposal and distances to disposal sites are discussed with the local authorities but solutions to these issues have not been found. Thus focus is on keeping the compounds clean and to find ways to transport the waste from the edge of the compound to the dump sites. Construction of latrines is not a priority in most communities, and although in some projects, sanplats are being promoted, this does not constitute a major part in the NGO activities.

### **Local Authorities:**

In the reform and decentralisation plans of the government, the local councils are key actors for local development activities, including water and sanitation. Before the sector reforms, the Department of Water Affairs was responsible for water supply schemes. The DWA in future will only be concerned with water resources management and no longer with the provision of drinking water. These tasks will now be transferred to the local councils and to the Commercial Utilities. The councils have no experience in the supply of water and it is expected that where D-WASHE exists, part of these functions will be taken over by the D-WASHE especially the rural water supply schemes. However, if no CUs exist in a town, the D-WASHE may well become involved in water supply in town as well, especially in the peri- urban areas. It is unclear who in the local council will be responsible for the promotion of sanitation, but it is likely that this will be done through the Ministry of Health, while D-WASHE will also have to be trained in sanitation promotion.

All local councils have a District Development Co-ordination Committee (DDCC) where different departments involved in development activities are represented. The D-WASHE are a sub-committee to the DDCC. However, review of the WASHE development plans has shown that often these plans are not even channelled through the DDCCs but are sent directly to the N-WASHE who is expected to submit them to

the DISS for further processing. During discussions with local authorities it was stressed that the DDCC has to be more involved in the D-WASHE activities where the D-WASHE exists and if this is not the case the DDCC should be directly involved in water and sanitation development. At present this is apparently rarely the case because few activities are undertaken if no donor, NGO or D-WASHE exists.

Under the reform system, local authorities have the responsibility for all environmental sanitation activities as stipulated in the Local Government Act and the Public Health Act. The problem is that they have hardly any revenue - so how can they implement drainage works, solid waste collection and sanitation. Moreover, capacity within the local authorities to carry out these functions is very low, both with regard to manpower and with regard to experience and technical knowledge. Basically the only people from the local authority who are at present involved in sanitation activities may be the community development workers who are expected to mobilise communities for development activities.

Capacity building for local councils is undertaken in the Local Government Support project (LOGOSP) funded by ODA and focusing on providing technical support to councils to assist them in the planning and management of development programmes. It will be good if the N-WASHE starts co-ordinating its activities with this project if they are operational in the same district.

#### **Private sector:**

Commercial Utilities have to be commercially viable to operate. While this is not very sure in urban areas, it is certainly not the case for rural areas if not only operation and maintenance cost are to be covered but also capital cost. The commercial utilities are not involved in on-site sanitation but do have to cover sewerage in their services. At present this is not very attractive as the sewerage systems in the towns are all badly maintained and in need of rehabilitation. Under the urban rehabilitation project funded by the World Bank, this rehabilitation will take place after which the sewerage systems will be transferred to the commercial utilities. Discussion in Lusaka and Chipata with the water and sewerage companies revealed that they have problems in cost recovery to a large extent because of payment defaults by the government. With a 51% share in the utilities, it is almost impossible to force payments by the government and this is one of the reasons why the WSS sector is not very attractive for the private sector. Rural water supplies and sanitation are not commercially viable and are therefore not privatised.

At present involvement of the private sector is non-existent in sanitation. This is not strange as there is a general lack of interest in sanitation so there is no demand for either sanitation technology or ready-made parts (such as sanplats). In the rural areas, apart from cement for the sanplat, all other components of sub- and superstructure can be found or organised within or near the village. Only technical advice is necessary. This could be given by a mason and presently NGOs are training people from the communities in latrine construction, but it is not known if people are willing to pay for technical advice in view of the general poverty in the rural areas. Constraints to private sector involvement apart from the lack of demand, are the difficulty of transporting cement, other materials and manpower; the sparsely populated rural areas, which make clustering for delivery difficult; the distances within the districts and the difficult access to many communities. Once demand for sanplats has been

created, however, it may become attractive for the sector to get involved in making moulds for the sanplats.

In peri-urban areas, construction materials may have to be bought, and this kind of suppliers can be found, as well as masons to construct the latrine. The only private enterprises which are involved in sanitation are the private desludging companies who empty septic tanks. They of course could also empty pit latrines if these are constructed well enough and also if these are reachable from a road accessible for a tanker.

#### **Village-WASHE (V-WASHE):**

V-WASHE are encouraged as water management committees to take responsibility, authority, accountability and control over the water source and can also be involved in the mobilisation for improvement of sanitation behaviour. As such they have tasks similar to the neighbourhood committees proposed by the Ministry of Health and the Residents Development Committees which are promoted in peri-urban areas. Critical in the formation of these community committees is the use of participatory approaches and enough time and support to the committee to carry out its tasks. At present this is not sufficiently structured and especially the follow up is not practised at all. Thus the committees get tasks allocated to them, often without fully understanding what the task is all about or realising the importance and implications of it.

During discussions it was stressed that where a community committee already exists for whatever purpose (health, agriculture, development) no new committee should be started for WASHE but these tasks should be incorporated in the existing committee. This to avoid the presently occurring situation where different committees are staffed by the same people.

## **5.4 Conclusions**

A legal framework for carrying out sanitation activities in rural and peri-urban areas is presently existing and powers of the local authorities are sufficiently clear and do not seem to need any additions.

The institutional framework is not clear and the continuing uncertainty about the future of the sector reform hinders the development process. It is clear that most actors/organisations in the field of water supply and sanitation are relatively new, including donors and NGOs. This is especially valid for the D-WASHE - much can be learned from the already established committees and in the development of the institutional aspects in the sanitation strategy their problems should be taken into account. This requires careful analysis of the process of development as much of the experience comes from learning-by-doing.

The institutional arrangements of the line ministries in D-WASHE (or without D-WASHE in the council) need to be established for:

selection of villages

hygiene behaviour and sanitation promotion and education

construction and technical support

monitoring

The tasks of the DWA are going to be carried out by the local authorities, this will have a profound effect on the WASHE sector as the staff of the council are as yet not

prepared for this, not does it have the funding for carrying out activities in the sector. As it will already be difficult for water supply, the sanitation issues will most probably receive even less attention than at present, especially where there is no D-WASHE. Capacity building and information, education and communication for hygiene behaviour and sanitation is therefore an absolute necessity. Apart from the staff of Ministry of Health, the extension staff of MCDSS needs to be targeted for this capacity building, while the district, provincial and national staff of this ministry will need to be targeted for advocacy for the sector.

## 6. FUNDING MECHANISMS

Investments in the water and sanitation sector are very low and to a large extent supported by donors. GRZ funding has dropped from 32% in 1994 to below 20% in 1996 and of this allocation only 22% has actually been released. The actual capital allocation of the Government of Zambia in the sector constitutes 0.1% of the national budget for all sectors.

Main donors supporting WSDG, CMMU and N-WASHE are GTZ, NORAD and Irish Aid while other support for this sector in the form of assistance in the establishment of D-WASHE or support to D-WASHE comes from Unicef, EC, JICA, SNV and ODA. The percentage of funds for sanitation in the budgets for water and sanitation activities is not known, but is estimated to be very small.

There are variations in the financing arrangements for the D-WASHE activities. The N-WASHE has drafted financing guidelines which indicate that the D-WASHE as a committee establishes its own financial management committee with a treasurer. The southern province districts have already opened a bank account, in other provinces this still has to be done.

The reforms are calling for strong effective local authorities, able to deliver goods and services. The D-WASHE would like to receive funds directly and form a parallel body, accountable to itself or a donor but having little to do with the council in financial terms. This is not in line with the spirit of decentralisation. The D-WASHE are afraid that funds channelled through the council will not reach their intended destination. As DISS becomes the route for channelling development aid to local institutions, it is obvious that this money should be accounted for using the GRZ accounting procedures even at local level.

It is important that there is rationalisation of the financial management procedures. While the council could have the overall responsibility of accounting for the money and checking on the expenditures, the D-WASHE could be responsible for initiating expenditure requests. Or, if the D-WASHE are expected to handle funds themselves, they should be trained to do so (in general it is felt that D-WASHE should not handle more than small amounts of money) as D-WASHE is mainly a co-ordinating body, not an implementor.

The choice of financing has an important influence on the capacity building and sustainability. In some countries, projects have made it a policy not to subsidise the cost of materials and construction to avoid dependence on external resources. Others choose cost sharing by the government, donors and households. Despite the adverse effect on sustainability, donors and governments are often tempted to resort to subsidies to speed up implementation and make the technology available. In Zambia, NGOs involved in the promotion of sanitation each have their own system of financing and community contribution. In an effective D-WASHE this should become streamlined to avoid suspicion and misunderstanding with the communities.

*This is the case in Katete where the D-WASHE has taken the approach to train women groups in the making of San plats. The funding available (through Unicef) covers 10 bags of cement per borehole from which 20 sanplats can be made and steel wire for reinforcement.. Initially five sanplats are made during the training (and were given to the woman group) from there on, the women group is on its own and has to sell the sanplats. They now sell the sanplats for 7000 of which they have to pay back 4000 to D-WASHE who then gives them from that money new cement. At least, this is the plan. But it has not yet been worked out and understood well by everybody. The idea is that interest is raised through the demonstration and the subsidised latrines and that this is enough to stimulate full payment after the first 40 sanplats.*

The first issue to be addressed, however, concerns the need for subsidy. At present subsidy for latrine construction is given by Unicef (half a bag per sanplat for twenty sanplats per water point); WaterAid supplies a whole bag of cement for a VIP latrine, with no restrictions on the number of latrines per water point; Irish Aid sells the sanplats for K2000 and the Peace Corps sells sanplats for K 2000 . In principle, the subsidy only covers a very small part of the real cost of the latrine, which includes labour for digging and construction, materials for the floor (cement, sand, stones), materials for the superstructure and where necessary materials for the lining of the pit. However, these cost are not considered cost by the households as only the cement and bars need cash financing. The mission feels that in principle, the subsidy should only be used as an extra incentive for the community groups to make and sell the sanplats - for instance a 'free' sanplat (cement and steel) for every ten sanplats sold.

In as far as the mission has been able to find out there are no credit schemes for latrines. Anyway, the experience with credit schemes for sanitation is not a very positive one all over the world. The only instances where success may be possible is where strong demand is present, strong community involvement and group responsibility for credit and pay-back.

At present there is no clear budget for communication and hygiene education in any government budget and it is impossible to give an indication of what this budget should be at this moment. But budgetary provisions for hygiene education need to be made in relation to project objectives, the set-up of the hygiene education programme and the workplan. Cost items predominantly consist of personnel, training , equipment, transport and hygiene education materials. In estimating the number of personnel needed for hygiene education, not only the time needed for educational activities have to be taken into account, but also time needed for duties such as staff meetings, training, supervision, liaison and reporting. Other major categories usually are travel, field allowance, materials and supplies.

## 7. SELECTION CRITERIA

At present different selection criteria for sanitation improvements exist and it is agreed that these need to be reviewed and assessed for finalization in the sanitation strategy. At present basically, areas are selected on the presence of water supply improvement activities. Many sector staff members feel that this selection criterion is justified in order to promote water, sanitation and hygiene education as one package and to avoid the already low number of government staff involved in WSS activities to spread even thinner than at present. Selection criteria need to be established for different levels: for districts; for areas in districts; for villages; for people.

The draft brochure on WASHE - basic needs package gives the following criteria for selecting districts:

- districts with high incidence of diarrhoeal diseases
- districts where sanitation is poor and level of hygiene education low
- districts where the water shortages are most severe
- districts where D-WASHE committees and NGOs have ensured capacity to execute activities

Within the districts priorities for selection are:

- areas where NGOs have the capacity and willingness to execute WASHE activities
- plans from D-WASHE committees which reflect concentration of resources
- plans from D-WASHE committees which are based on V-WASHE committee plans which are gender responsive and which reflect community capacity building
- plans from D-WASHE committees which promote WASHE basic needs
- per district one peri-urban area will be selected

Village level selection criteria are:

- areas with high incidence of diarrhoeal diseases
- areas where village committees are operational and the community has a willingness to participate
- villages where existing water points can be rehabilitated
- villages with most severe water shortages
- communities with waterpoints which are (to be) located nearby clinics, schools and other centres of population

It is considered one of the tasks of the D-WASHE to make the selection criteria adapted to the conditions in their own district. The selection criteria used in Monze district are the following:

### Technical criteria:

- rehabilitation of existing water points is preferred
- new water point may be provide where
  - there is no adequate safe water point within 0.5 km from most houses
  - existing water pint is unsatisfactory
  - population pressure necessitates an extra water point
- dug wells are preferred technology where
  - water table less than 20 meter

- ground conditions suitable for digging by hand
- number of users at least 50 but less than 200
- boreholes are preferred technology where
  - water tables more than 20 meter
  - ground conditions unsuitable for digging
  - number of users at least 200

Exceptions are schools and clinics which will be given priority; where the population is large, digging two wells may be better than one borehole; if situation acute and no alternative borehole can be for less than 200.

#### **Social criteria:**

- for any water point a viable V-WASHE committee must be formed with male and female members chosen by the community
- community must be willing to provide materials and labour and any necessary financial contributions
- the V-WASHE must be able to agree on a suitable communal site for the water point.

Criteria for selection used in water and sanitation projects in other countries include:

- incidence of water and sanitation related diseases
- expressed demand by communities
- ownership of land/house
- coverage of latrines
- environmental conditions
- clustering of project interventions
- poverty
- have shown initiative in community improvements
- willingness to pay for latrines
- densities

During discussions at the workshop, the following selection criteria were brought forward as important for Zambia:

- high incidence of diarrhoeal diseases
- population densities
- demand
- communities with water points
- existing coverage low
- adverse geology of the soil
- poverty.

In the discussion that followed, the question was raised on what to do with a village with no water point but with a demand for sanitation technology. The mission feels that in such a case, a mould and technical training to a village committee should be carried out, after which the village can continue on its own. If people are really interested, it is unlikely that they will not be able to find the funds for the cement and steel (K11000). On the other hand, it may be possible to find a way where a D-WASHE in such a case is permitted to send a request for funding to a donor who is active in that district and receive the funds for subsidised sanplats (or VIP latrines).

With regard to the subsidised sanplats, the mission feels that the procedure in use in some districts at the moment - first come first serve - is not good as it is likely to benefit those who are informed and better off and not those who may need the subsidy most (older people, women on their own with children, widows).

One of the problems with the selection is that at this moment staff availability for sanitation activities is quite low. Unless funds are found and commitment is made by the government (and donors) this situation will remain the same. This will severely restrict feasibility to select villages based on demand. Moreover, for demand based selection the D-WASHE has to make sure that all villages in its district understand this procedure. Whether or not this is viable is a point for discussion with the districts being so extensive and the access so difficult in places.

## 8. INDICATORS FOR MONITORING AND EVALUATION

Until fairly recent (and very often still ongoing) monitoring and evaluation focused on finance and implementation, specifically on construction targets. Monitoring has been viewed as the routine collection of data about progress in project operations. In the eighties, minimum evaluation procedures (MEP) were introduced which focused on functioning and utilization of water and sanitation facilities and on hygiene (education and behaviour). The MEP emphasised cheap, simple and quick methods for monitoring and evaluation with 17 measurable indicators for water and sanitation interventions. Indicators are key variables which are used to measure change in a situation or achievement of a target. The three main questions asked are:

- do the facilities or services function correctly
- are the facilities used correctly
- have there been changes in hygiene behaviour

More recently the focus has begun to shift from reliance on external and independent monitors towards a monitoring process by community members and development of strategies and tools to do so, focusing on:

- relevance            do the plans, technology, selection of villages fit with local needs and demands
- efficiency            the least cost and most timely way to achieve outputs
- effectiveness        the degree to which outputs are utilised
- sustainability        the continuation of benefits beyond the project period

In the projects carried out presently in Zambia, it is assumed that all NGOs have their own indicators and monitoring tools, which the mission has not been able to assess.

Most **donors** still use indicators for success focused on hardware such as:

- number of latrines installed
- number of sanplats made or sold
- number of handwashing devices bought

If a programme wants to be community based and the objective is to improve sanitation conditions and sanitation behaviour, measuring number of latrines, sanplats and handwashing devices will not be an adequate indicator as it does not measure whether these things are being used. A viable monitoring system from community level upward cannot be established and keep working without the active support and involvement of the communities themselves. Moreover, the monitoring information should be used at the level from where it is taken to give feedback of information into routine activities.

Community members will only visit sites and keep records when they

- appreciate the need for monitoring
- have decided who will monitor what
- get the necessary training to implement the chosen monitoring system
- see results of the monitoring in improved hygiene and living conditions

Examples of such indicators at **community level** are:

- use of latrines (you can see that from the path leading to the latrine, or from the latrine itself (smell, presence of water)
- cleanliness of latrines
- handwashing device with water in it

- container with soap/ash/clean sand near the latrine
- presence of solid waste around
- waste pits dug and used
- continued defecation in the bush

The **community extension workers** can monitor the community monitoring sheets, and can also do self-monitoring on for example:

- number of sanplats sold and paid for
- number, attendance and decisions of community meetings
- time, transport and material inputs of field visits
- training activities carried out

It should be stressed that only relevant indicators are used that come basically out of the objectives of the programme and never too many. **D-WASHE** will have to develop their own indicators/monitoring system which could include:

- number and attendance of meetings held
- number and projects which have a multi-departmental input
- monitor on yearly development plan
- financial monitoring (if applicable)
- expansion of WASHE activities

During the workshop was indicated that a sub-group to the WSG would be convened to work on selection criteria and indicators as this at the moment is such an undefined field. As a guidance to this group, the following steps for planning monitoring activities are mentioned:

- 1) In preparation clarify:
  - objectives and targets
  - activities
  - groups involved
  - results expected, when expected
- 2) Identify key issues (key questions, concerns, demands, problems) which will become the focus of monitoring
- 3) Plan for the use of monitoring information from the beginning
- 4) Determine the indicators, sub-indicators and criteria
- 5) Plan the strategies for collecting, analysing data and reporting
- 6) Prepare collection instruments
- 7) Provide training and orientation to groups involved
- 8) Start the operation. Go back to step 1 and repeat or revise monitoring as needed.

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## WASHE supplementary modules

WASHE- A communication strategy to enhance community participation in WASHE activities in Mazabuka district

N-WASHE -National WASHE Programme

WASHE(1994) - Survey on public and private wells in Luapula province

WASHE(1996) - Proceedings of establishing WASHE in Kasama district

WASHE (August -1996) - Training of Trainers for teachers, School Inspectors

WASHE (1996) - Proceedings of establishing WASHE in Isoka district

WASHE (1996) - District WASHE committee- Plan of action - Kawambwa district

WASHE (1997) - Understanding D-WASHE

WASHE (1997) - Zambia water sector reforms - Review of N-WASHE coordinating and training team

WSDG(1994)-Working paper on :

- Major objectives concerning coverage rates
- Basic selection criteria for future investment
- Aspects regarding water and sanitation in rural areas

WSDG(1995)-Role of private sector in water supply and sanitation management

WSDG(1995)-Working paper on investment on the water supply sector national, rural and by province (preliminary assumptions)

WSDG(1996) - Water Watch - A series of radio programmes for children

WSDG(1996) - Publicity and communication plan

WSDG(1997) -Report on the national workshop on Operation and Maintenance and management of water supply and sanitation system

World Vision(1997) - Monze WASHE project - End of project report

Visioning workshop report for the Community Development Department (1997)

## Annex I

### Itinerary for Madeleen Wegelin and Pauline Ikumi , Zambia 17 May- 8 June 1997

17 May	Arrival of M.Wegelin - read documents meet S. Mathur and J. van der Gaag
18 May	Arrival of P. Ikumi - read documents
19 May - Morning	Meet the CMMU team: Dermot Carty - Technical advisor- CMMU Musonda Kaluba - Acting team leader Joseph Mathe - Health Educator Isaack Mbewe - N-WASHE coordinator
19 May - Afternoon	Dennis Mwanza - WSDG Bulenge - Asst. Technical Specialist - WSDG Sam Ngoma - Publicity - WSDG Meeting Working Group on Sanitation
20 May - Morning	M.Stirling -Rep. UNICEF Dermot Carty - Technical advisor -CMMU
20 May - Afternoon	Joseph Mathe - Health Educator-CMMU Musonda Kaluba- Acting Team leader- CMMU Mr. Mulambo - DISS -MLGH
21 May -	Field visit - Monze - Madeleen & Pauline WaterAid, D-WASHE, DAPP, villages Mukanda and Chisekili
22 May	Field visit Monze - Madeleen & Pauline village Chisekesi, peri-urban Monza Irish Aid in Mazabuka
23 May - Morning	UNICEF - S. Mathur and J. van der Gaag NORAD - Peter Koren MLGH - Mr. Patel CTC -MOE - Mrs. M. Chibale
23 May Afternoon 24 May - 27 May	Irish Aid Project - Kamanga Compound Field Visit to Eastern Province - Madeleen D-WASHE Katete, Village Azere Guzi D-WASHE Cipata; Mr Hussein , DWA village Kayeke, peri-urban Muchini Mr. Mwalye, Cipata Water Utility

24 May - 28 May 28 May	Field Visit to Luapula Province - Pauline D-WASHE Mansa district village Moloshi, Kabunda, Chivalashi, Matumbusa and Kasuva Clinical officer -Mr. Mwila Peace Corps Kabunda - Odile Stort District Community Development Officer - Mr. Musonda Provincial Health Inspector- Mr. Imasiku Town Clerk - Mr. Chisunka V-WASHE committee- Kabunda Madeleen, report writing
29 May - Morning	Doreen Mulenga, UNICEF Claire Blenkinsop, UNICEF N-WASHE-Isaack Mbewe GTZ - Mr. Tony Richards MOH - Mr. S.T. Chisanga
29 May - Afternoon	Central Board of Health - Director, Dr. Silwamba ZAMCOM - Director, Mr Daka
30 May - Morning	Lusaka City Council: Director Engineering Services - Mr. Lungu Director Public Health -Mrs. Wamulume PUSH Project, Community Development Coordinator - Ms.Florence Chibwasha CARE - Darren Hedley
30 May - Afternoon	Lusaka Water & Sewarage Corporation: Mr. Shawa, Managing Director Ministry of Local Government and Housing, DISS - Director Mr. Mwiinga
31 May and 1 June	Report writing
2 June	UNICEF - S. Mathur and J. van der Gaag , report writing
3 June - Morning	report writing, workshop preparation
3 June - Afternoon	Leave for Siavonga for workshop
4 - 6 June	Workshop in Siavaonga
7 June	departure Madeleen
8 June	departure Pauline