C4. Detailed programme design

Note: The detailed programme design was then produced. The example below considers the hygiene promotion programme only.

The detailed programme design has been produced through consultation with key stakeholders. This was achieved through focus group discussions with community (section) leaders, women's groups and the market committee.

A logical framework for the hygiene promotion programme has been produced in Table C6.

Table C6. Logical framework: hygiene promotion

Narrative summary	***Measurable indicators***	***Means of verification***	***Important assumptions***
Goal: (F1): Improve and sustain the health and well-being of the affected population at Kala refugee camp.	(F1): Crude mortality rateCrude morbidity rates: malaria; diarrhoea; dysentery: cholera; scabies	(F1): Monitoring reports and records from MSF medical team	(Goal to super goal) (F1):
Purpose: Improve hygiene practice, understanding and sanitation facilities among the affected population	Improved hygiene behaviour and awareness of hygiene and sanitation issuesImproved access to and use of appropriate sanitation facilities by affected population Increased community involvement in sanitation activities Improved construction, operation and maintenance of sanitation facilities following promotion campaigns Hygiene promotion campaigns directed at all groups within the camp, especially the vulnerable Hygiene promotion programme active in all areas of the camp	1.1 Feedback from hygiene promoters (notebooks), from MSF sanitation and health teams and from project monitoring and evaluation 1.2 Feedback from affected community through interview and discussion	(Purpose to goal) 1. Community is receptive to programme and staff 2. Community takes a proactive role in improving and maintaining facilities and are willing to organise themselves 3. Poor and vulnerable groups' demands are identified through appropriate participatory techniques

Case study

Table CG. continued

Narrative summary *Measurable indicators*	*Means of verification*	*Important assumptions*
Outputs: 1 All households visited by hygiene promoters within one month 2 All section leaders to have shovel, pick and hoe, and five buckets per street within two weeks 3 One hygiene promoter per eight hundred people and one supervisor recruited from refugee population 4. All hygiene promoters trained and able to demonstrate good understanding of key issues involved 5. Hand-washing facilities at schools 6. Increased coverage of appropriate family waste pits and latrines 7. Increased cleanliness of domestic environment	1.1 Feedback from hygiene promoters, from MSF sanitation and health teams and from project supervision, monitoring and evaluation 1.2 Feedback from community members and section leaders 1.3 Logistics records for tools and materials	(Outputs to purpose) 1. Hygiene promoters are willing and able to communicate effectively with all members of community 2. Hygiene promoters receptive to training
Activities: 1. Recruitment of hygiene promoters and supervisor 2. Training of hygiene promoters in appropriate promotional messages and methods 3. School visits for basic hygiene education and to address problems of lack of handwashing facilities at schools 4. Home visits to promote good hygiene practice and family garbage pits, and to explain family latrine option and give technical advice 5. Provision of tools and cleaning materials to section leaders 6. Checking and promoting cleanliness of communal and family latrines 7. Monitoring use of communal and family waste pits	1.1 Feedback from hygiene promoters, from MSF sanitation and health teams and from project supervision, monitoring and evaluation 1.2 Feedback from affected community through interview and discussion 1 3 Logistics records for tools and materials	1. MSF watsan and health staff are willing to take a more multi-disciplinary and flexible approach to sanitation and health programme 2. Home visit team are willing to give increased emphasis to hygiene activities 3. Supervisor willing and able to take on increased responsibility
Inputs: 1. Tools 2. Notebooks and pens 3 Buckets 4. Staff salaries	1.1 Logistics records for tools and materials 1.2 Financial records	(Inputs to activities) 1. Tools and buckets are available and can be procured rapidly

Budget

A budget summary has been produced for the hygiene promotion programme over the next *six months* in Table C7 below.

Table C7. Outline budget – hygiene promotion

Item no.	*Item*	*Unit cost (US$)*	*Quantity*	*Total cost (US$)*
1.	Shovel	12.5	120	1,500
2.	Pick-axe	15.0	120	1,800
3.	Hoe	10.0	120	1,200
4.	Bucket	3.00	500	1,500
5	Pen and notebook	1.5	50	75
6.	Sign production	1.5	50	75
7.	32 x Hygiene promoter (per day)	32.0	120	3,840
8.	1 x Hygiene supervisor (per day)	2.5	120	300
	Sub-total			10,290
	Contingency line (15%)			1,544
	Total cost			**11,834**

C5. Implementation management

Table C8 shows a milestones implementation table for the hygiene promotion programme, this was completed by the project team at the end of May 2001. The milestones are linked to the outputs in the logical framework.

Project output: Improved hygiene practice, use and maintenance of excreta disposal and solid waste management facilities among the affected population

Table C8. Hygiene promotion milestones

Selected milestones	***Who***	***When***	***Current status and comments***
One hygiene promoter per eight hundred people and one supervisor recruited from refugee population	MSF health and sanitation staff	26/03	Recruitment process successfully completed on time(target achieved)
All hygiene promoters trained and able to demonstrate good understanding of key issues involved	MSF health and sanitation staff	09/04	Training limited so far but on-going (amended date: 11/06)
All section leaders to have shovel, pick and hoe, and five buckets per street	MSF logistics and hygiene promotion team	16/04	Delays due to logistical procedures – awaiting approval (amended date· 04/06)
All households visited by hygiene promoters to promote good hygiene practice and family garbage pits, and to explain family latrine option and give technical advice	Hygiene promotion team	07/05	Approximately 75% of households visited so far (amended date: 15/06)
All school classes to have received basic hygiene education	Hygiene promotion team and teachers	07/05	Only 50% of school classes so far due to difficulties in co-ordination with teachers (amended date. 04/06)
All schools to have handwashing facilities	Hygiene promotion and water supply teams	14/05	No action has been undertaken due to delays by water team (amended date: 18/06)
All latrines to be maintained and kept clean	Hygiene promotion team and community	28/05	All domestic latrines well-maintained and cleaned by community
All households to have access to appropriate communal or family waste pit	Hygiene promotion team and community	28/05	Approximately 75% of households have access (amended date: 11/06)

C6. Monitoring

Several monitoring exercises were conducted in May 2001 using checklist analysis, SWOT analysis and the monitoring framework. The results of these are presented below and a simplified situation report has also been reproduced.

Checklist analysis

A repeat rapid assessment was carried out in May 2001 two months after the initial assessment. This was designed to act as a monitoring tool to quantify any change in the sanitation service provision and the overall health of the population during this two-month period.

The scores obtained for Kala Refugee Camp during the initial visit in March 2001 and the updated scores in May 2001 are presented in Table C9.

Table C9. Checklist analysis

Sector	*Score 24.03.01*	*Score 22.05.1*	*Comments*
Excreta disposal	7.4	7.1	Unchanged acceptable level
Solid waste management	19.4	13.2	General improvement but increased intervention required
Waste management at medical centres	18.5	5.6	Huge improvement to long-term acceptable level
Disposal of dead bodies	5.4	4.6	Unchanged acceptable level
Wastewater management	9.3	7.3	Unchanged acceptable level
Hygiene promotion	N/A	17.3	Satisfactory initial stage but improvement required
AVERAGE camp score	12.0	9.2	Overall improvement from short to long-term acceptable level

Brief descriptions of the new situation for each sector are provided below.

Excreta disposal (7.4→7.1)

The overall level of service for excreta disposal has not changed greatly since March and facilities and practices remain acceptable for long-term intervention. The average sector score has reduced slightly due to improved quality and quantity of latrines at the medical centre.

There has been a slight increase in the number of completed family latrines and the quality of these is generally good. In addition the MSF sanitation team has marked out proposed family

latrine sites in several blocks. The design and construction of concrete latrine slabs has been considerably improved with decreased thickness (approx. 6cm), footrest positions and sloped surface.

Some latrines at the reception centre are currently full, whilst the lack of latrines at the distribution centre was observed to be posing some problems on distribution days.

Solid waste management (19.4→13.2)
Solid waste management at Kala camp has still failed to achieve the recommended long-term minimum objectives, although the overall situation has improved somewhat. Management systems at the market and reception centre have been initiated but these are still largely ineffective in tackling potential hazards, and these sites remain the main problem areas. Tools and clothing have been provided by World Vision and bins were provided at both locations but were removed in recent food riots and have not been returned or replaced.

In general, there is an increased coverage of family garbage pits and in many of these the waste is covered with soil or ash. Waste is now drying and decomposing faster in the uncovered pits due to the changed climatic conditions.

Communal solid waste pits have now been constructed (Blocks A-F only) but are not being used. Pits are currently intercepting the water table and are acting as breeding grounds for large populations of mosquitoes. Community members were observed drawing water from pits for laundry or construction use. These pits were assessed separately and obtained a score of 16.0 (compared to 9.4 for the family pits).

Waste management at medical centres (18.5→5.6)
Recommended long-term objectives for waste management at medical centres have now been achieved, and this sector has seen the greatest improvement in service provision. Segregation of different types of waste at source is well organised, signs have been provided and staff have now been trained effectively, although protective clothing is limited. Coloured plastic bins are used to segregate medical (pathological) waste, glassware and general waste. Sealed medicine containers are used for the disposal of sharps, although these have not been provided in some of the wards.

The system for transportation of segregated waste is safe and efficient. A covered pit has been constructed for general waste and is situated at an acceptable distance from the health post (approx. 75m). The burner has been relocated (approx. 100m downwind from health centre) and is used for the disposal of medical and paper wastes; the ash is deposited in a sealed pit. A sharps pit has been constructed alongside and is used for the disposal of sharps containers and glassware. Both burner and sharps pit are enclosed and secure.

Placentas are still disposed of in the burial ground where there is no proper management system in place.

Disposal of dead bodies (5.4→4.6)
Satisfactory facilities and procedures are in place for burial of the dead, and site management at the cemetery is much improved, leading to improved score.

Wastewater management (9.3→7.3)
In general, wastewater management at the various waterpoints throughout the camp is satisfactory. Soak-pits have been improved and are able to cope with the volume of wastewater produced. There was no evidence of mosquito breeding in soak-pits.

Use of natural site drainage has been adopted at several waterpoints and this seems to be effective. New tapstand aprons are generally well designed and constructed, although the apron width is slightly narrow leading to large quantities of splashed water at one tapstand.

Hygiene promotion (No score→17.3)
The hygiene promotion programme was not assessed in March since this was then at the trial stage only. The hygiene promotion programme has now been running for two months and has been implemented by the health home-visit team. The current score indicates that the immediate recommended minimum objectives have been achieved but that the short-term objectives have not.

Team members have been trained in basic hygiene education but training has been limited so far with little attention to sanitation facilities. There is a pronounced bias among the team in favour of health activities (e.g. follow up of medical cases) over hygiene. Home-visitors claim that the combined workload is not too great but that further training is needed.

The programme currently focuses on home visits although some school hygiene education sessions have been conducted and informal meetings are held. At present no signs or posters have been produced and monitoring of sanitation facilities appears to be minimal. Provision of tools and cleaning materials is reported by section leaders to be inadequate.

The team has a Congolese supervisor who appears to be highly able and motivated.

Average camp score (12.0→9.2)
In general there is a satisfactory standard of sanitation facilities, services and practices and an acceptable overall health status in the camp (malaria incidence reduced slightly). The camp average score has improved significantly and is now within the long-term acceptable level. Problems concerning solid waste management remain and there is a need for a more effective hygiene promotion programme.

SWOT Analysis

The overall sanitation programme was then analysed in terms of SWOT (Strengths, Weaknesses, Opportunities and Threats). This was conducted with a group of agency staff and community leaders and was designed to identify the positive and negative elements of the programme to date, in order to improve the effectiveness of future action plans. The results of this exercise are presented in Table C10.

Table C10. SWOT analysis results

Strengths	Strong labour force and good supervision for technical assignments High latrine coverage High production of good quality latrine slabs Much improved system for medical waste management Efficient wastewater management systems Strong links between sanitation and health teams Flexible and strong organisational set-up
Weaknesses	Lack of monitoring of systems once implemented (e.g. medical waste, market waste) Lack of delegation of duties to Congolese counterparts Inappropriate communal solid waste pits Hygiene promotion activities sidelined by health and watsan teams
Opportunities	Community willingness to participate in sanitation activities Solid base for effective hygiene promotion team Potential for greater collaboration between MSF, World Vision and UNHCR Good communication lines established with community leaders Foundation for solid waste management systems in place at market and reception Hygiene promotion can become heart of sanitation programme
Threats	Lack of collaboration between implementing agencies Lack of monitoring of on-going activities and systems Inadequate change-over of key agency staff Hygiene promotion sidelined due to active water supply and health programmes Creating a cycle of dependence and expectation among affected population
SWOT summary	In general, the hardware components of the sanitation programme are very strong while the software aspects remain much weaker with less emphasis given to these by programme staff. However, the institutional and organisational framework is in place to facilitate a smooth change in emphasis. Monitoring of programme activities and strong co-ordination of activities is essential. The affected population is keen to be involved and may be given more responsibility where appropriate.

Monitoring framework

A monitoring framework was also completed and is shown in Table C11.

Table C11. Monitoring framework

Implementation component	*Recorded information*
Staff	Staff recruitment currently on target.Training of hygiene promoters on-going but requires greater input; and practical training has been provided for construction supervisors.Increased proportion of Congolese staff at higher skill levels but increased delegation of responsibilities to these staff is required.Supervision structure is in place with logisticians and team captains but no formal staff appraisal procedures in place.Generally staff are working efficiently and effectively although increased training is needed.Some conflict has been reported between Congolese staff of different tribal groups (concerning differential treatment by supervisors) and between Zambian and Congolese staff – MSF is working to resolve this through promotion of the agency's humanitarian principles.
Resources	In general, appropriate resources are procured and used in line with programme plans. Logistics request forms and procurement forms operate effectively and external orders are sent to Lusaka via email. Regular feedback from Lusaka logistics is provided via email. The only additional resources possibly required are SanPlat moulds (to reduce cement consumption by using smaller slabs) – currently under investigation. Local materials are used where possible (unless unavailable or very expensive). Early cutting of timber has led to considerable deforestation in the immediate vicinity of the camp; now timber is only taken from site designated by the Ministry of Agriculture which is approximately 5km from camp.
Finances	No budget outline or breakdown has been presented to field staff and hence budget lines are unclear at field-level. The programme expenditure currently exceeds the budget and there is a lack of budget control.
Time	Currently no feedback is provided to the field from the finance department. The hygiene promotion programme is currently behind schedule due to lack of co-ordination and unclear responsibilities; and the heavy workloads of staff and change in personnel have contributed to this. The procurement of tools for the family latrine and waste pit programmes has also been delayed due to budget constraints but it is hoped this will be rectified very soon. Day-to-day time management is generally satisfactory although greater delegation of duties by senior staff will provide a more efficient system.
Outputs	Output targets are being met for facility provision for excreta disposal, solid waste management, medical centre waste management and wastewater management Hygiene promotion outputs currently behind targets. Morbidity and mortality rates are fairly stable with low incidence of sanitation-related diseases. The equity of programme benefits is very good due to regular consultation with hygiene home-visit team and community leaders; and there is a strong focus on vulnerable households. Outputs are generally sustainable for the long-term intervention level although increased monitoring activities are required. Current unaddressed needs identified include insufficient soap and water storage containers for handwashing (for domestic areas and at schools).

Table C11. continued...	
	Unforeseen side-effects include groundwater in communal waste pits leading to mosquito breeding and use of inappropriate water. Several hand-dug wells have also been constructed by community members in the newer areas of the camp (supposedly for construction use only) – this issue should be addressed immediately.
Community	The community is currently actively involved in the design, construction and O&M of family latrines and waste pits, but have negligible input into programme planning. Facilities are generally used and maintained appropriately, although squat-hole covers are often removed and the removal of plastic sheeting from some communal latrines has also occurred – this will be replaced with mud and grass in future. Since the hygiene promotion programme is in the early stages only it has had only a small impact on hygiene practice but this is gradually improving. There are currently no substantial capacity building activities in place.
Information	Monthly situation reports are produced in the field and sent to Lusaka. Programme plans are currently produced at irregular intervals for large-scale interventions only. Community meetings, inter-agency meetings (including local authority representation) and MSF staff meetings are conducted on a weekly basis. The hygiene promotion programme is beginning to act as an effective link between the medical and watsan teams, and provides good transfer of information on many community issues. Technical information support is currently satisfactory.

Situation report

Based on the monitoring framework above, an example situation report for the month of April is produced in Table C12.

Table C12. Situation report	
Location	Kala camp, Zambia
Agency	Médecins Sans Frontières, Holland
Reporting period	April 2001
Name of reporter(s)	Joseph Ng'ambi; Peter Harvey
Position of reporter(s)	Watsan engineer, Researcher
Overall situation summary (security, population, climate, etc.)	Some protests concerning food rations but now generally stable situation, very few new arrivals, dry season just begun
Staff issues (new staff, contracts, salaries, etc.)	Watsan engineer due to leave within next two months, heavy workload on water supply issues;labour force stable at present
Goods received in reporting period	Bins and containers for segregation of medical waste; large aggregate for soakpits
Logistics orders outstanding (order dates)	Cleaning materials (28/4); tools (28/4)
Expenditure for reporting period	US$1,000 (excluding salary commitments)
Financial requirements for next reporting period	Continued salary commitments only
Time constraints (reasons for delays, etc.)	Some family latrines not completed due to lack of dry grass for roofs; lack of solid waste pits due to limited supply of tools
Activities undertaken during reporting period	Sharps pit and burner constructed; new medical waste system implemented; soakpits and drainage channels completed at all waterpoints, hygiene promoters recruited; initial training of hygiene promoters undertaken
Changes made to existing plans (including reasons)	Hygiene promotion programme to run in conjunction with health home-visit programme; World Vision to maintain responsibility for solid waste at the market
Tasks outstanding / forthcoming activities	Train hygiene promoters concerning sanitation facilities, focus on solid waste and excreta disposal; placenta pit to be constructed; wastewater drainage channels to be completed
Community issues	Community representatives expressed frustration over lack of tools and cleaning materials; Market Committee currently unable to take on responsibility of paying waste workers
Information details (meetings held, data received)	Weekly meetings with community leaders; weekly meetings with Market Committee, technical manual received from WEDC
Information requested	None
Other agencies / stakeholders (news and activities)	UNHCR Watsan visit and new co-ordinator

C7. Evaluation

An interim evaluation of the sanitation programme was carried out in August 2001; a summarised report has been reproduced below.

Summary

Kala camp was set up in August 2000 for Congolese refugees fleeing civil strife in the Democratic Republic of Congo (DRC). The current population of the camp is 19,000 and the average family size is four. The population is currently steadily increasing by approximately 1000 people per week. World Vision is responsible for camp management and MSF Holland is responsible for health, water supply and sanitation, although they intend to end their programme by the end of 2001. The local government provides police for camp security and UNHCR co-ordinates the relief effort.

The purpose of this evaluation is to provide an interim report on the current status of the sanitation programme with a view to the likely hand-over of the programme to a different implementing agency at the end of this year. The evaluation structure consists of brief descriptions of the programme activities, outputs and resources, followed by a completed evaluation framework to assess programme appropriateness, effectiveness and efficiency.

In general the programme is functioning in an efficient and effective manner and has produced a significant improvement in sanitation service provision at Kala camp over the past six months. The main recommendations coming out of this evaluation are to:

- develop a fully independent hygiene promotion team;
- address immediately the issue of hand-dug wells;
- instigate effective monitoring of waste management at the medical centre;
- introduce greater consultation with World Vision;
- introduce improved budget control measures; and
- begin preparation of documents for hand-over to new implementing agency

Programme justification

Due to an increased influx of Congolese refugees into Zambia during 2000 the need arose to identify and provide an appropriate site for a refugee camp. Once the site at Kala was identified and approved by the Government of Zambia, it was necessary to make the site habitable and ensure that basic services such as water supply, healthcare and sanitation were put into place. Many people among the affected population have been subjected to upheaval, poverty and poor health and the need for external humanitarian assistance was, and remains, considerable. It is for these reasons that continued intervention is required.

Activities

Programme activities to date include the provision of communal sanitation facilities for new arrivals and vulnerable groups; the management of wastewater, solid waste and excreta at public sites; and hygiene promotion for the implementation of new facilities, appropriate use and maintenance, and good hygiene practice.

There are no major constraints affecting the programme although the budget is limited. Key opportunities include increased community participation; greater collaboration with other implementing agencies; and a more effective and proactive hygiene promotion team.

Outputs

The outputs achieved to date include:

- Communal latrines for all new arrivals and family latrines for vulnerable households constructed by MSF;
- Hygiene promotion team conducting home visits to promote implementation of family latrines and waste pits, appropriate use and maintenance of sanitation facilities, and safe hygiene practice;
- Effective waste management systems at all medical facilities;
- Effective wastewater management systems at all water distribution points; and
- Efficient operation to produce concrete latrine slabs.

Resources

Following the monitoring exercise conducted in May 2001 a professional hygiene promotion specialist was recruited nationally and has now joined the team. He will be responsible for the co-ordination of the hygiene promotion programme and related sanitation activities. So far the hygiene promotion activities have been conducted by the health information team which is also responsible for following up medical cases through home visits and other medical-related activities. As a result, hygiene promotion has been given secondary priority and the programme has not been progressing. In addition, training in hygiene promotion has not been adequate to date.

Staff employed for the construction of sanitation facilities and manufacture of latrine slabs are currently working effectively although the team may be more efficient if slightly reduced in size

Financial resources are currently adequate although the projected costs for the sanitation programme are generally quite low and hence there is little programme flexibility for high capital cost interventions. It is expected that current funds will be sufficient for the remainder of the programme.

Logistical resources are currently adequate and appropriate materials are generally available locally. Use of cement is currently fairly high and this could be reduced through the use of small plastic SanPlat moulds to produce smaller squatting slabs.

Evaluation framework

A completed evaluation framework to assess the programme is produced below (Table C13):

Table C13. Evaluation framework

Evaluation component	*Recorded information*
Appropriateness	The programme has been appropriate with respect to the: ■ perceptions and needs of the affected population; ■ policies and mandate of the agency; and ■ national and international policies; However, the prioritisation of needs and urgency of implementation has often been inappropriate with a tendency to focus on large-scale construction activities in place of high-impact software activities.
Connectedness	Local resources and capacities have been identified and built upon where possible. Currently the programme has done little to enhance community decision-making but the hygiene promotion programme has a strong focus on addressing this. UNHCR has been officially informed that MSF will be closing down their programme at the end of 2001, a replacement implementing partner has been identified and the hand-over is scheduled to commence next month. The programme outputs are generally sustainable over their design life, although lack of monitoring of systems (such as the medical waste management system) threatens this sustainability.
Effectiveness	The programme purpose has been successfully realised by maintaining a stable health status among the affected population and providing appropriate sanitation facilities and services. There have been few unforeseen side effects although the construction of inappropriate hand-dug wells has increased significantly with increased tool provision. In general, the programme has evolved in line with monitoring results and the shift in emphasis to hygiene promotion has been a key part of this, with the employment of a sectoral professional breaking new ground for MSF. The recommended minimum objectives for long-term intervention have now been satisfied for all sanitation sectors.
Impact	In general, the programme objectives been achieved. It is difficult to determine the effect of the programme on morbidity and mortality rates although the health status has remained fairly stable over the past six months, and diarroheal disease has decreased significantly. The programme has contributed to the stabilisation and empowerment of the community in that the emphasis for programme design and implementation is gradually shifting from agency to community.Unforeseen impacts include increased malaria due to mosquito breeding in communal solid waste pits close to dwellings.
Coherence	MSF has collaborated with implementing partners, particularly World Vision, concerning solid waste, although this has lacked coherence at times. There have currently been no overlaps with other humanitarian actors concerning sanitation. Community priorities and plans are starting to be incorporated into intervention strategies but his transformation is still slow.In general, there has been an effective information flow between stakeholders, with the exception of internal agency budget data.
Coverage	The extent of the programme impact on the affected population is extensive with the creation of appropriate and sanitary living conditions. In general, access to appropriate facilities and services has been adequate and equitable benefits have been achieved.

Table C13. continued	
Efficiency	The ratio between outputs and inputs has been difficult to assess, primarily due to the lack of appropriate records. The lack of budget and expenditure details is a key constraint. In general terms the following observations have been made: ■ Staff: numbers appear to be inappropriately high although steps are currently being taken to address this ■ Resources: the use of timber has exceeded basic requirements for communal facilities at times and cement consumption is still fairly high, although reduction strategies are currently under investigation. ■ Finances: the programme has overspent in relation to the initial budget although funds are available for continued implementation. No data concerning cost-effectiveness is available at present ■ Time: use of time is generally efficient although greater delegation of duties is essential to reduce workload on senior staff. ■ Community participation: community-based activities have been very efficient where used and there is much potential for increased activity. ■ Information: the time spent on information exchange (reports, meetings, etc.) and the actual information exchanged are generally appropriate.

Conclusions

In general, the hardware components of the sanitation programme are very strong and while the software aspects remain much weaker the organisational framework is in place to facilitate a smooth change in emphasis, and this is now beginning to happen. Monitoring of programme activities and co-ordination of activities has improved but requires greater emphasis.

The sanitation programme is now well established and functioning effectively although there is still much potential for improvement in the hygiene promotion programme. To ensure a successful and sustainable conclusion to the overall programme it is essential that increased emphasis is placed on hygiene promotion.

The agency human resource base, staff motivation and team spirit are very strong and logistical support is good. Greater budget control and delegation of responsibility are required, however. Many members of the affected population are keen to be involved in programme activities and may be given more responsibility where appropriate. Community organisation and communication lines are well established and effective, and may be used more.

Recommendations

Key recommendations for this programme are as follows:

1. Recruit and train an independent hygiene promotion team

- It is recommended that the hygiene promotion team should be independent from the health home-visit team for the following reasons:
- Currently medical activities (medical cases, vaccinations, etc.) receive priority over hygiene promotion.

- The hygiene promoters need on-going intensive training, especially over the next two months, if the programme is to be effective.
- Ideally, hygiene promoters should reside in the section of the camp to which they are assigned (this is not the case with the health team).
- Hygiene promoters do not need a medical background but should simply be respected among the target population.
- Extensive promotion campaigns are required for important issues such as family sanitation facilities and hand-dug wells, and significant inputs in terms of time and training are required if these are to be successful.

2. Address issue of family sanitation facilities

The hygiene promotion programme should focus strongly on the community construction of family latrines and waste pits to ensure the sustainability of excreta disposal and solid waste management in the camp dwelling areas. In addition, on-going monitoring of facility use and maintenance should be conducted by hygiene promoters.

3. Address issue of hand-dug wells

It is essential that immediate action is taken to resolve the problem of the marked increase in the prevalence of hand-dug wells constructed by community members. Although this is primarily a water supply issue it is a side-effect of the provision of tools as part of the sanitation programme and should be addressed by the hygiene promotion team. Possible appropriate measures include:

- Hygiene promotion team to map locations and specifications (depth, water level, lining, protection etc.) of all wells within the camp to assess risks and community needs.
- Hygiene promoters to interview and educate community members regarding unsafe water quality, boiling of water and well protection measures.
- Hygiene promotion team to organise regular shock-chlorination of wells to reduce risks.
- Hygiene promotion team to mobilise community members to undertake well protection measures to increase physical safety and limit surface contamination.
- Water team to provide short-term water supply at the 'last tower' while new water supply system is completed.

4. Instigate effective monitoring of waste management at the medical centre

It is important that someone is given responsibility to monitor and co-ordinate waste management at the medical centre since this is not being done at present and some slight problems are beginning to surface.

5. Introduce greater consultation with World Vision

Increased consultation should be undertaken with World Vision regarding excreta disposal and solid waste management at the distribution centre, reception centre and market.

6. Introduce improved budget control measures

Greater budget control is required to prevent a repeat of the problem of over-spending. All field staff responsible for ordering and specifying resources should be made aware of budget constraints and provided with regular budget control reports.

7. Procure SanPlat moulds
SanPlat moulds should be procured in Lusaka and workers trained in their use to commence production of smaller, higher quality latrine slabs.

8. Close communal solid waste pits
The communal solid waste pits in Blocks A-H should be filled in and sealed before the commencement of the rainy season to avoid encouraging mosquito populations and the use of inappropriate water.

9. Begin preparation of documents for hand-over
Situation, monitoring and evaluation reports should be compiled to facilitate a smooth hand-over to the new implementing agency at the close of the programme.

Peter Harvey, WEDC, 16th August 2001