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Community-based Water Supply and Sanitation Projects



Baringo and Kisumu
Districts, Kenya

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Community-based Water Supply and Sanitation Projects

Baringo and Kisumu Districts, Kenya



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Community-based
Water Supply and
Sanitation Projects

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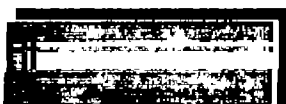
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Preface

Universal access to safe drinking water and adequate environmental sanitation are the main goals for the Water and Sanitation (WATSAN) sector. These goals are well articulated in the National Programme of Action (NPA) for children in the 1990s.

In this regard, the Government of Kenya (GOK) and UNICEF are addressing one aspect of the 'silent emergency' - children dying because their communities lack access to safe water and sanitation; because their parents are not aware of oral rehydration therapy (ORT).

However, the experiences of the International Drinking Water Supply and Sanitation Decade (IDWSSD) indicate that the Government alone can not provide access to safe water to all citizens. The Government has realised that such objectives can only be achieved through active involvement of the communities concerned.

Similarly, the WATSAN sector has shifted emphasis from mere provision of technical inputs to the empowerment and motivation of communities to use, manage and own water and sanitation systems. Alliances have also been forged with agencies operating at grassroots levels to complement these efforts.

Water and sanitation committees have been formed; and the concept of local management involving women in the operation and maintenance of the systems has been adopted. There is an overwhelming sense of ownership which enhances sustainability.

Furthermore, there are efforts to expand linkages between water supply, sanitation and health to include nutrition and education. This integration is broadening the scope of the Bamako Initiative from its health focus to include community-managed water and sanitation systems.

As a result of a unique partnership of the community/GOK/Non-Governmental Organisations (NGOs), including church organisations /other external donor agencies/UNICEF networking in Baringo and Kisumu rural districts, many replicable community-based water and sanitation projects are now being implemented.

As highlighted in this booklet, a significant momentum has been created and the demand for services is increasing rapidly in these areas.

This is a big challenge. The funding level does not satisfy the demand. For this reason, the impact of UNICEF support to the Government objectives/strategies to replicate the systems in other needy areas will depend a great deal on the funding situation.

But all hope is not lost. The external support agencies can mitigate the 'silent emergency' through renewed commitment to the WATSAN sector.

Community-based Water Supply and Sanitation Projects

"Every child has the right to clean drinking-water, taking into consideration the dangers and risks of environmental pollution; hygiene and environmental sanitation."

– Convention on the Rights of the Child

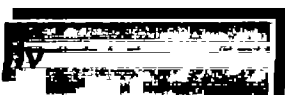
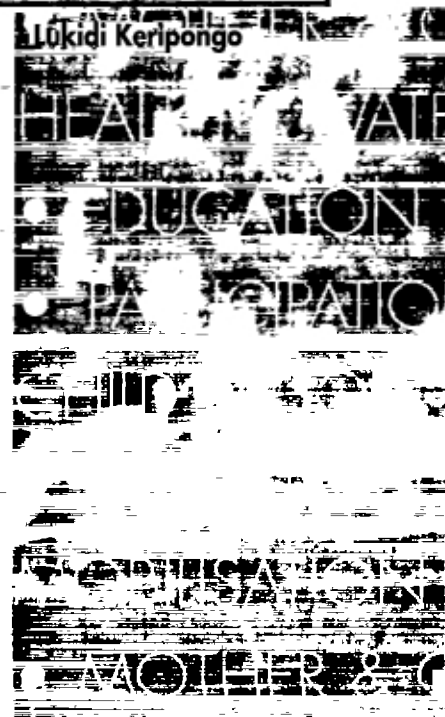
Lukidi Keripongo is a ten-year-old herdsboy. He lives in a village about five kilometres away from Loruk Trading Centre in Baringo District. Every morning, he brings milk for sale in the centre and when he fancies, he passes through Loruk Primary School to play with his age-mates during breaktime. "Sometimes I go there to listen to what the teacher is telling the pupils, I do it from the window as I don't have much time to waste."

Keripongo's people attach unique value to education; families send children to school as a punishment for failure to look after livestock properly! The few educated persons are regarded as a loss to the community.

However, last year, when Keripongo passed through the school during breaktime, his friends were listening to the Public Health Technician (PHT) from Loruk Dispensary, known in the community as 'dakitari'. He knows him well because on several occasions, his mother had taken him to the dispensary and he was given some medicine which stopped diarrhoea.

Keripongo sat through the talk and keenly observed the demonstrations. But what was imprinted on his mind was the PHT's warning on the dangers of drinking water from the nearby Lake Baringo.

Since then, when Keripongo brings the milk in the morning, he waits until the water sale begins so that he can fill his containers with drinking water. "I don't pay for the water but I have money in case.. I have told my mother what 'dakitari' said and she gives my brothers and sisters the same water to drink, these days she rarely takes me or others to see him," Keripongo points out proudly, fingering his containers...



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Community-based
Water Supply and
Sanitation Projects

EDUCATION
PARTICIPATION
COMMUNITY
SANITATION
MODERNISATION
COMMUNITY
HEALTH
CLINIC
COMMUNITY
MORNING
COMMUNITY
HEALTH
EDUCATION
COMMUNITY

Overview

The Problem

By the end of 1990, only 42 per cent of Kenya's rural population of about 18 million, had access to safe drinking water. Today, about 14 per cent of rural communities walk between 2 and 8 km to a drinking water source during the wet season; in the dry season the number affected rises to 27 per cent.

This puts considerable strain on women and their children, who like elsewhere in Africa spend long hours collecting water.

However, the Government has made considerable progress in the provision of safe water supplies and sanitation. But, progress has been overshadowed by rapid population growth and restrained by adverse economic circumstances.

Despite these factors, there are goals set and programmes being undertaken to improve accessibility to safe drinking water and sanitation. The Convention on the Rights of the Child and National Programme of Action (NPA) goals for water and sanitation by the year 2000 are the guiding principles.



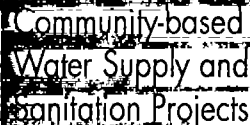
Women strain to carry home 20 litre containers of water

Objectives and Strategies

The Water and Sanitation Sector's objectives are to:

- Increase access to safe drinking water and adequate means of waste (including excreta) disposal
- Reduce the prevalence of water-borne diseases such as diarrhoea
- Reduce the drudgery of fetching water in rural areas

In order to achieve the objectives, replicable water supply and sanitation systems are given priority. Sustainable interventions are preferred - systems which are easy to install, easy to operate, easy to repair and maintain, and whose recurrent costs are affordable by the beneficiary community.



Community-based Water Supply and Sanitation Projects

Priority is given to gravity water delivery systems and the protection of springs, where feasible. Rain water harvesting is encouraged. Water and sanitation activities are linked with Primary Health Care (PHC)/Bamako Initiative* projects. Community participation is emphasised as a strategy that involves the people in a bottom-up approach to district development.

The projects' design strongly emphasises the concept of community participation and social mobilisation to influence social change. Community involvement in identifying, planning, construction, operation, management and maintenance represent the key to the functioning of the facilities and contribute immensely to their utilisation. They also inculcate in communities a sense of ownership, thus enhancing sustainability.

Networking

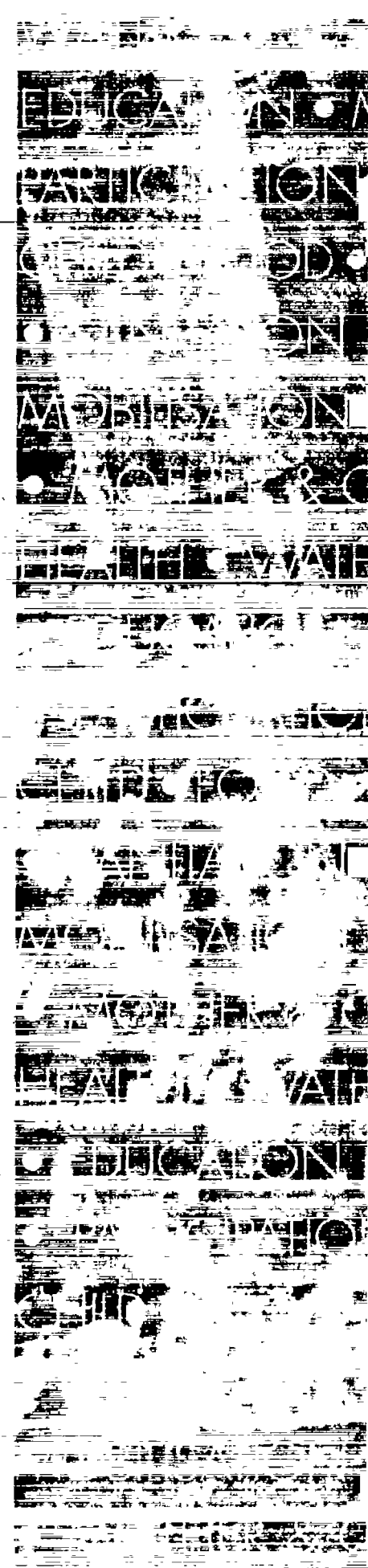
The Government/Non-Governmental Organisations (NGOs), including church organisations/other external donor agencies/UNICEF are collaborating to provide about 300,000 people with adequate safe drinking water and enhance waste disposal including, human excreta, for about 200,000 people, in Baringo and Kisumu Districts.

UNICEF has forged alliances with groups operating at grassroots levels, complementing their efforts rather than starting entirely new projects. A unique partnership known as the District Water Development Committee (DWDC) has emerged comprising of Government Ministries and Departments, NGOs and other agencies who have implementing capacity on water and/or sanitation.

Linkages

Implementation of such projects is possible because emphasis has changed from 'service delivery to high impact programmes.' The Water and Sanitation Sector is now promoting 'linkages' of water and sanitation to health and health-related issues and actively involving women in development programmes.

* African Ministers of Health met in Bamako, Mali (1987) and devised a system in which communities would manage, sell and replenish drugs for self-reliance. Hence, Bamako Initiative



The linkages to health have contributed to the preventive aspects of diarrhoeal diseases and to the nutritional elements pertaining to time/energy savings of women and their children due to accessible water supplies.

Linkages to education through hygiene education at school and provision of facilities at these institutions have been found to be effective means of reaching children in their formative years.

Capacity Building

Equally important is capacity building in the community as training on the job to construct any form of latrine or install a water pump, has produced many 'fundis' (skilled artisans) who are now earning income as private contractors.

Women have been recognised as highly important team members in water supply and sanitation projects and they have been rightly given a seat at the centre stage of development.

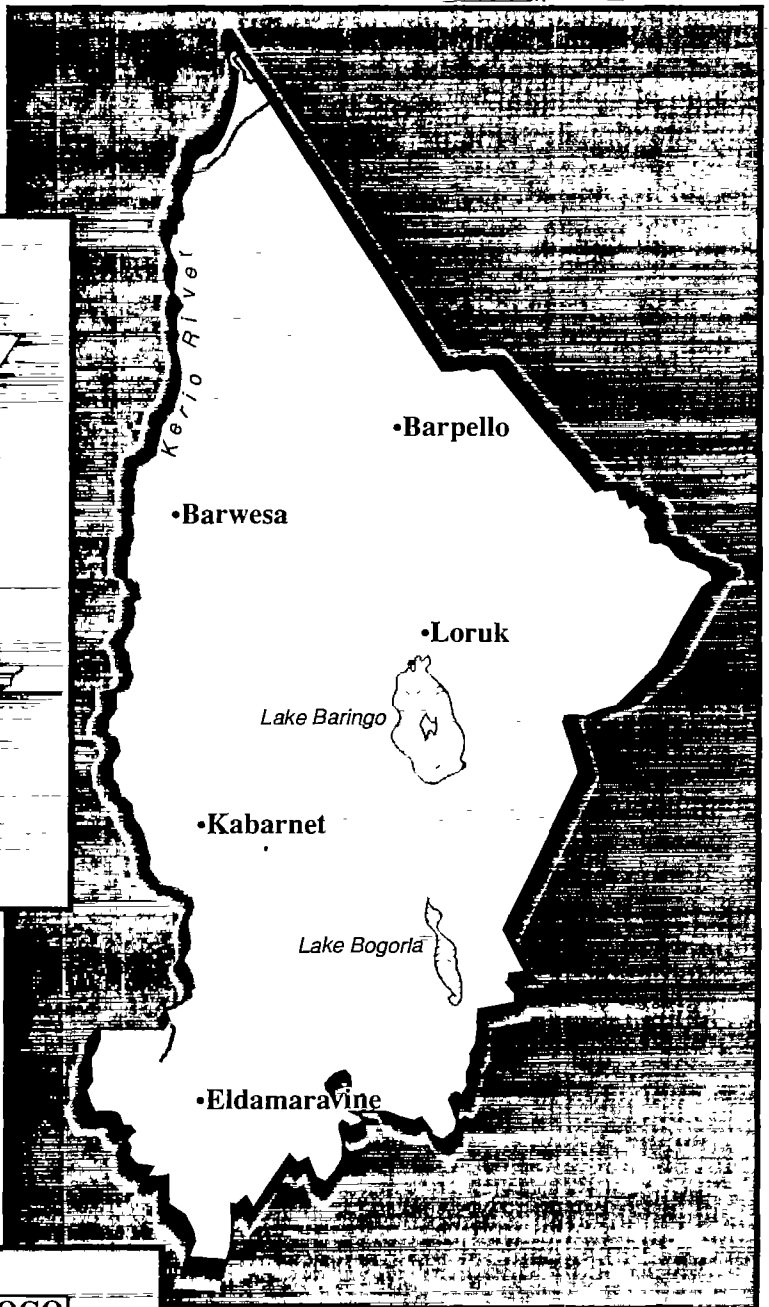
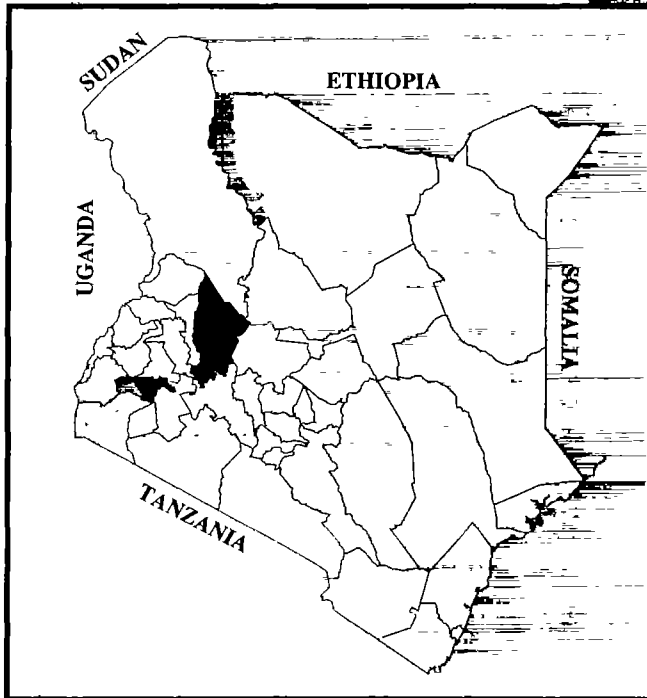
A combination of the above together with patience, creative approaches and committed individuals at every level, have made some impact in the two districts.

This booklet highlights some of the elements of community-based water and sanitation systems in selected communities in the two districts.

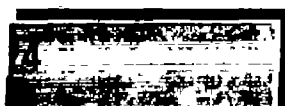
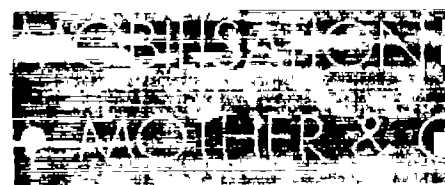
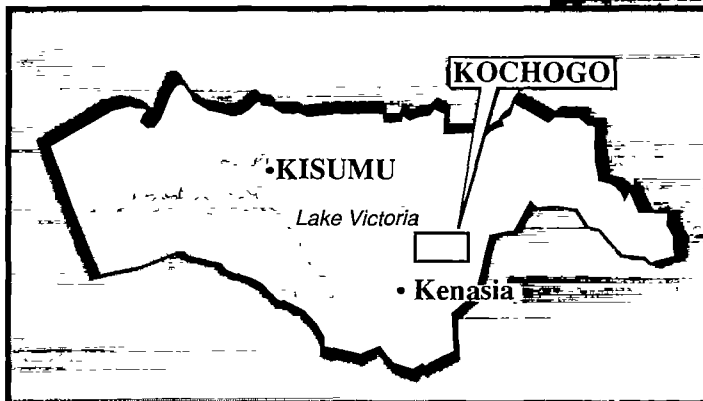
Community-based
Water Supply and
Sanitation Projects

BARINGO

KENYA



KISUMU



Concept and Methodology

Baringo District lies in the centre of the Great Rift Valley. It has roughly two distinct areas - the medium rainfall west and central and the semi-arid or arid east, rocky, steep terrain in some parts with scanty vegetation.



A mother with no alternative water source, but this hazardous pond.

There are two lakes, Baringo and Bogoria, the latter with brackish water. The main permanent river, Kerio, borders the district to the west. Otherwise many rivers which criss-cross the district are seasonal, springs are few particularly in the east, and tend to disappear underground.

The climate is hot and dry with frequent spells of drought, the recent one being the 1992 drought which affected Eastern and Southern Africa. Some communities have lived in isolation until quite recently. Pastoralists live in the east and the north, and peasant farmers inhabit the west and central hilly areas.

Kisumu District is in Lake Victoria basin, Africa's largest fresh water lake. There are two rivers Nyando and Awach which cause perennial flooding during the rainy season or when the waters of Nyando are released to irrigate rice paddies.

The majority of the people obtain their water from polluted ponds, rivers and Lake Victoria. Industrial waste released into upstream Nyando and the high

water table in some parts also occasionally increases contamination through pit latrine overflows.

The people are farmers, growing mainly cotton and sugar-canes and they also keep cattle; fishing is a big industry.

Any development project undertaken in these districts is affected by factors which are geographical, others economic or socio-cultural; these factors in one way or another reinforce each other.

For example, in Baringo, pastoralists prefer to live in scattered homesteads which restrains use of communal facilities; men and boys go away from their homes

sometimes for long periods. As a result, permanent houses are rarely constructed and facilities like latrines are not thought of, even today. Livestock are kept for prestige rather than their economic value.

In Kisumu, during the dry season, a high percentage of the population has access to pit latrines, but many of these unfortunately collapse during the rainy season when flooding occurs, thus ground water contamination by human excreta.

High Infant Mortality Rate (IMR)

In both districts, diseases like malaria, diarrhoea including cholera, intestinal worms and scabies are endemic. IMR is very high and so is morbidity among the adult population. Like in Baringo, the main cause of these woes in Kisumu, is lack of potable water and proper sanitary disposal of human excreta.

Due to high infant mortality and morbidity UNICEF has focused resources to these districts through a participatory process of development.

A 1987/88 survey in Baringo District revealed some high IMR areas (over 171 per 1000 live births). A programme was therefore launched to promote Child Survival and Development (CSD) in 18 sub-locations where the IMR was highest. The District Development Officer (DDO) organised meetings within each focus sub-location.

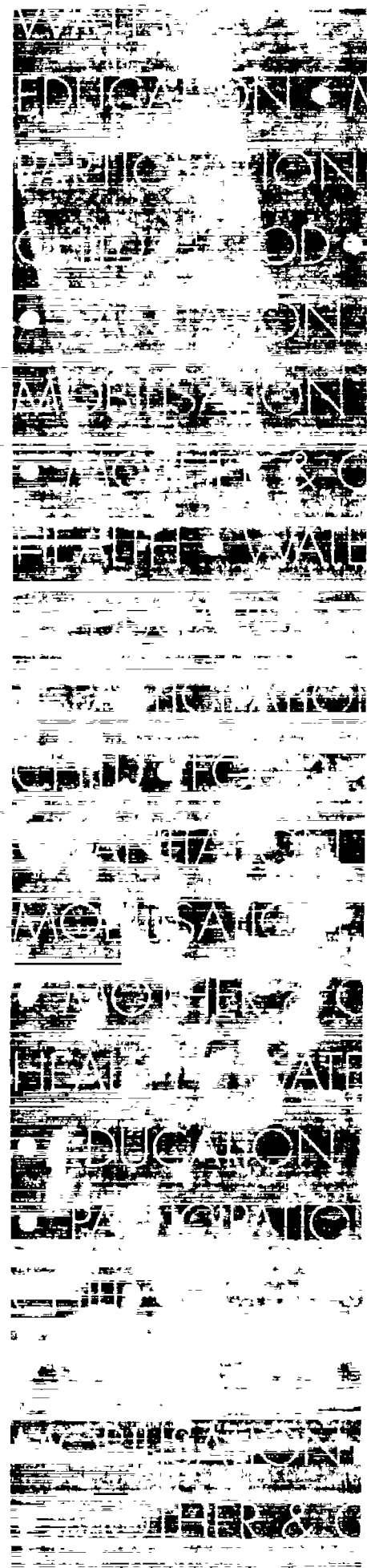
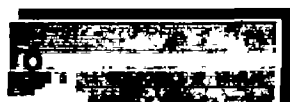
Through discussions, individual communities prioritised their development plans. Nevertheless, the communities had not understood fully their role in the development process.

Training

Since early in the programme in 1990, training courses have been organised to motivate the different categories of the communities to organise and take responsibility for their development projects.

The four-phased Community Leadership Training (CLT), especially leadership training, guides community leaders in participatory approach to development.

Members of various development committees in the communities are trained in administrative and operational procedures to improve system management. Community members are also exposed to other areas of knowledge. For example,





The community working
on a food store site in
Kenesia, Kisumu District.

ected or volunteers are trained in a two-month phased community health course which includes basic information on water supplies, sanitation, health and hygiene.

The course content also covers some general health interventions like oral rehydration therapy, recognising of common diseases in the society and their remedies, operating and sustaining a community pharmacy and child immunisation. A major impact of this course carried out by the Ministry of Health is that each community now has either Community and/or Village Health Workers (C/VHW).

Community Participation

Community participation and involvement are crucial to the success of the projects. Armed with the newly acquired knowledge, community leaders start to organise their communities before any project is started.

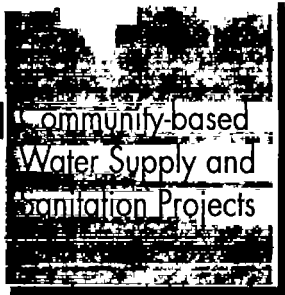
The process starts with community discussions, decision making and planning which lead to the formation of development committees, electing officials and registering with the Social Services Department. With a certificate, the committee opens a bank account for the money contributed towards the construction/management of the system.

Before work starts, the committee is informed of the roles of the community and expectations. In most cases UNICEF or partner agencies underwrite the cost of construction equipment and supplies while the Government provides technical assistance. The community supplies manpower, local building materials like sand and gravel and is responsible for the management, operation and maintenance of the system once it is completed.

This contribution from the community to the project heightens awareness and inculcates a sense of ownership, necessary for sustainability.

Water

Discussions with sub-location Child Survival Committees made it clear that closer access to clean water was a top priority to many. Water is therefore a significant entry point to integrated development approach.



Community-based Water Supply and Sanitation Projects

The District Water Development Committee carries out feasibility studies on technological options with costings. During the time a study is done to determine which system is best to serve the area, the community is expected to be in the process of organising itself.

The water committee organises the community to make their contributions and is responsible for the management, operation and maintenance of the water supply system once it is completed.

Sanitation

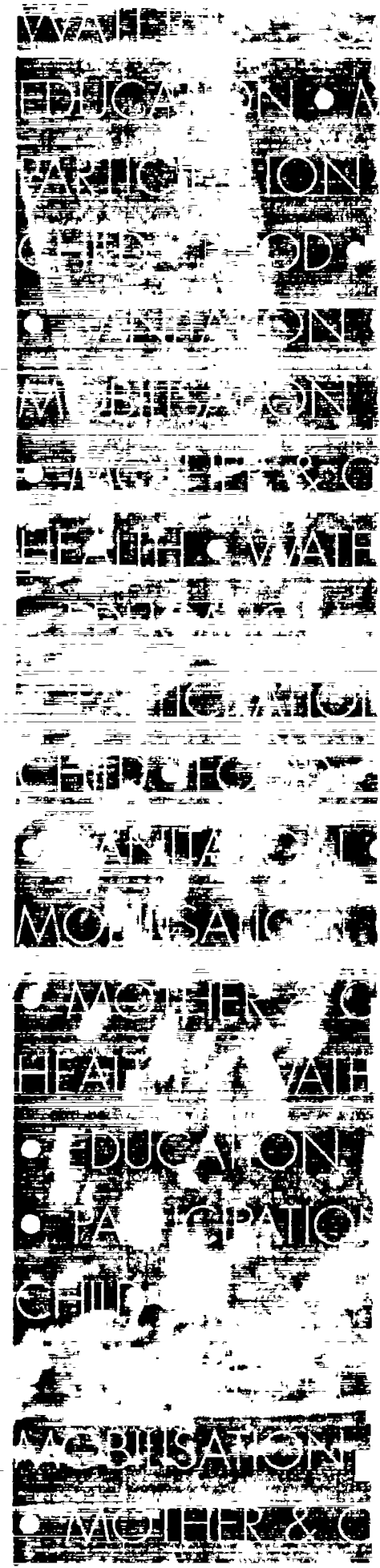
Whereas in many areas of operation water is the lead entry, in Barwessa sub-location, Baringo District, sanitary disposal of human excreta intervention, takes the lead.

Communities are organised through sanitation committees to construct latrines at institutions with partner organisations including UNICEF providing building materials like cement, vent pipes and wire mesh. The communities are supposed to replicate latrines at homestead level.

Villagers organise Revolving Funds based on the existing traditional self-help groups to help members meet latrine construction costs.

Impact

Already, there are water development projects; and, health education is having its impact on people who are now constructing latrines in their homesteads. Communities are taking care of their health problems through Bamako Initiative and women are engaging in income-generating activities with the resultant improvement of their families and communities as a whole.



Community Leadership Training

Joseph Kiptima had hardly warmed his seat as the new Barwessa sub-location assistant chief when a letter came from the District headquarters, Kabarnet, instructing him to chair the local CSD committee. "The whole thing did not make any sense to me," he confesses, adding, "fortunately, another letter followed soon inviting me and five other people for Community Leadership Training (CLT)."

The training programme brought together six people from each of the focus areas in a locally developed four-phase training programme covering leadership style, planning, organisation and management. A team led by Government personnel and facilitators from World Vision and Kipsaraman Catholic Mission used participatory training methods.

CLT course content:

Phase One: Leadership Style

- Types of Leadership
- Effective communication
- Basic steps of planning

- Cultural beliefs and norms/behaviours that will bring about development

Phase Two: Group Organisation

- Group organisation:
 - how are groups formed
 - what is the goal/purpose of forming groups
 - composition of groups
 - constraints in group formation
- Assignments - how to improve on a group already organised for better performance



Teaching is a motivating factor in community participation.

Phase Three: Improving Domestic Income

- Running of small scale businesses
- Procedures and regulations in establishing small scale businesses

Phase Four: Planning and Management

- Project planning
- Project implementation
- Project management

Training evolved as a process of problem-solving and an exchange between trainers and trainees; was based upon everyday experiences and tasks which the trainees were expected to carry out.

After every five-day phase, the participants who included women, had to go back to their respective communities and put into practice their newly acquired knowledge for at least one month before embarking on the next phase. This practice had a great significance on the participants.

Training Transforms Community Leader

Kiptima was greatly transformed after the course he attended in 1992. His community now see him as a model leader. Kiptima knows the process of project development from initiation to implementation stages and he is clear on the role of development committees. He has a major inclination on home environment improvement.

He is instrumental to strong linkages developed between the community and external support agencies including the Government.

Community Participation and Social Mobilisation

Kochogo/Kakola

In 1974, there was widespread outbreak of cholera in Kochogo/Kakola, Kisumu District, and the Government on its own developed and equipped many shallow wells with hand pumps, referred to as 'Government' or 'cholera' wells. The communities made little or no effort to protect or maintain the water points, and eventually the water became unsafe for drinking.



In 1988, a particularly nasty cholera episode killed many children in the community. High death rates motivated the women to take action. Women's groups approached Kenya Water for Health Organisation (KWAHO), a local NGO working in the neighbourhood for assistance.

Water AID (a British NGO) and UNICEF are supporting KWAHO and communities to develop 170 wells fitted with AfriDev hand pumps to serve

about 35,000 people. Upwards of 90 wells are already in place.

Participatory approach

Before constructing a well, the community has to demonstrate a certain level of interest and motivation. A village water committee mainly elected from the women's group with men co-opted has to be in place, registered with Social Affairs Department as a self-help society, and a certificate as a proof.

Water for Health Assistants (WAHAs) of KWAHO mobilize the communities to provide local materials like sand and gravel and labour during the construction process. After completion, the committee is supposed to manage, operate and maintain the water point which include limiting hours of usage, selling water at an affordable price, opening a bank account, records keeping, buy spare parts and daily cleaning of the water point. Some committees have fenced water points to keep animals away while others lock it at particular times.

Community pays for lack of participation

Loruk community, Baringo District, had little knowledge about diarrhoeal diseases until their water pump broke down for six months. During this period, the community was forced to revert to the unsafe water of Lake Baringo and other traditional sources which led to severe infection of water-related diseases.

As a result of diarrhoea, health education was intensified and the Community Health Workers (CHWs) dwelt at length on oral rehydration therapy as the first defence against diarrhoea. Sales of oral rehydration salt packets at the village pharmacy soared while in some homesteads, mothers learnt to make a home brew.

Even the intensified health campaign did not bring about community participation to expected level. This may explain why it took the community much longer to raise funds to meet the repair costs of the pump until a child was killed by a crocodile while drawing water from Lake Baringo.

Within days after the tragedy, the community immediately raised Ksh. 15,000 (appr. US\$ 250) to buy spare parts and repaired the pump. The community has hired a full time pump operator after realising the need for continued operation.

Barwessa

For the last two consecutive Thursdays, Rosaline Cheptoo, 49, widow and mother of four, has been providing lunch to members of sanitation committee and those of the Village Revolving Fund in her Kamugoye native village, Barwessa, Baringo District.

There is an air of satisfaction as she goes about her compound for very soon, perhaps around mid-day, members will arrive to finish digging the pit of her latrine and start work on the slab. It has been hard work because the area is rocky. She is number 16 in line since latrine construction was introduced in the 54-homestead village in 1992.



When a safe drinking-water system breaks down, people revert to unsafe water sources.

How did this happen?

After repeated 'barazas' (mass meetings) by the motivated community leaders and the Public Health Technician (PHT), members of a village sanitation committee including women were elected. The PHT intensified health education and the community eventually appreciated the value of constructing and use of latrines.



A 'baraza'.

The community was mobilised to build latrines at institutions. UNICEF provided cement, vent pipes and wire mesh. At the same time they were being taught how to construct the latrines for

replication in their homesteads by the PHT and the 'fundi'. The community, apart from designating Tuesday as a communal work day, require each household to contribute sand and gravel as well as dig the pit.

Revolving Fund

It was made clear from the beginning that each household had to bear all construction costs. In order to meet the costs, the village turned to the existing traditional informal self-help groups which assist members in case of problems or if there is communal work.

It is in such groups that Revolving Fund systems are set up to make loans for the purchase of materials for latrines. The loans are to be repaid and 'revolved' to the next family which wants to build a latrine. Members contribute money or even an item for sale, monthly, and there is mutual trust.

In neighbouring Kipkuluny where latrine construction started in 1991, a survey of 93 homesteads indicated that there were 75 dish drying racks, 44 latrines and 99 compost pits. Almost all walls in the homesteads have been plastered with a mixture of sand and cow dung to seal cracks in the walls, a main hideout for mosquitoes.

Health education

These are the spin-off of the initial latrine project with its high component of health education. The project has helped the community to understand the dangers of improper human waste disposal and they now link it to various diseases.

The villagers are undertaking other development activities like house improvement, tree planting, preventive measures like child immunisation, draining stagnant water and using impregnated bed nets in case of malaria, and safe keeping of water at home in order to avoid contamination.

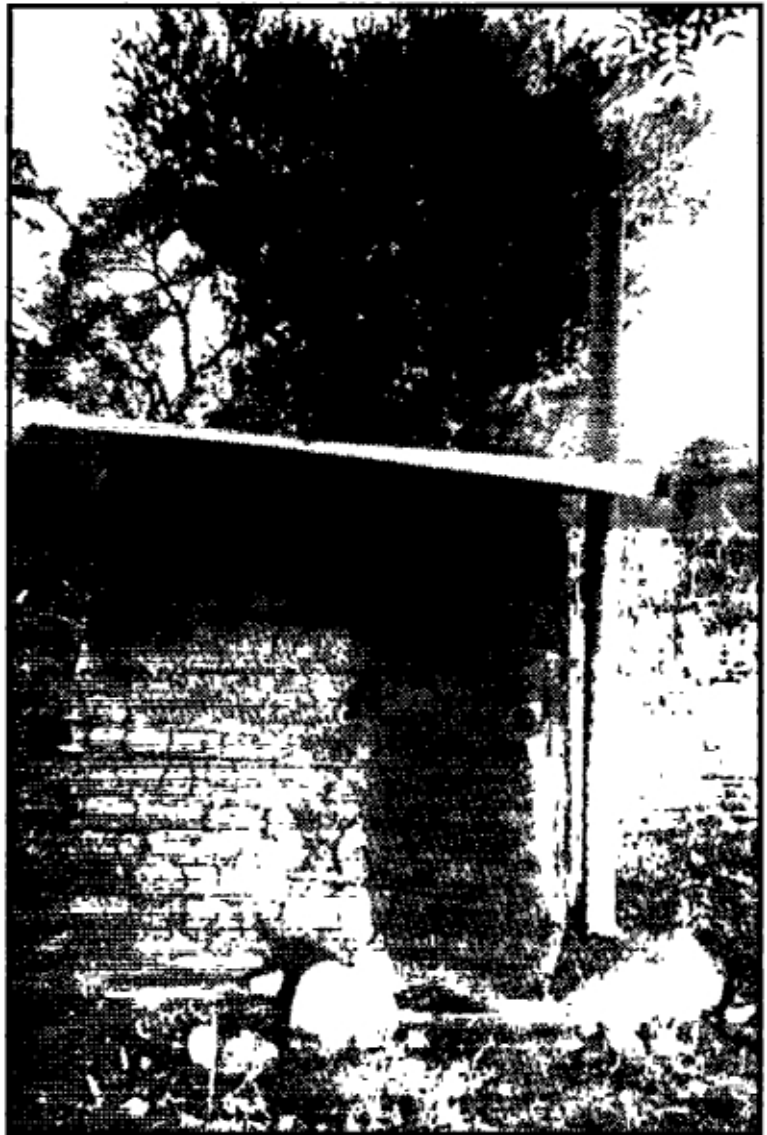
Health education, the driving force behind all this success, has made the villagers understand the importance of access to potable water. The PHT plays an important role in the awareness process. With the help of Salawa Catholic Mission, a partner agency, water committees are constructing tanks for roof catchment systems.

Changing habits takes time...

In Kochogo/Kakola, before the construction of the system, the community could already link potable water supply to improved health. But in many communities this is not the case.

Even after constructing a water point, there is no guarantee that it will be used effectively. Actually teaching the people to effectively use potable water well is sometimes the most difficult component in improving the sanitary practices of the community.

People change their attitudes and perceptions slowly. They must be convinced that some of their beliefs and their customs contribute to the prevalence of diseases which lead to death before such beliefs and customs are abandoned entirely.



Similar Latrines built with local materials except the vent pipe dot the countryside in Barwessa.

Flexibility

For an external agency, making initial contact with local inhabitants takes time. Even after gaining the confidence of the community, there are other problems. In many areas, more often than not, during the rainy season, roads are impassable as main arteries are cut by swollen rivers for days at a time. Extension work comes to halt on weekly market days, or during seasonal activities such as harvests, circumcision or calamities like cattle rustling. Development process must therefore take into account some or all of these variables.

The process of community participation is the painstaking development of community and individual involvement, it has its own momentum. Any external agency has to be flexible enough in order to fully motivate the people, an imperative for sustainability. Tight and rigid deadlines have often resulted in project failures.

Women Involvement

Determination Motivates Women...

In her 15 years of marriage, Rehel Munda has never aspired to chair a water committee in her village, let alone being a water pump 'fundis'. But all along, her secret prayer has been accessible potable water supply. Until recently, her water source was the polluted River Nyando, about four kilometres away.

Discussing problems of water supply in Kochogo/Kakola, Munda eases her dress off her shoulders to show dark marks etched on her body by ropes used to suspend a 20-litre container which until recently, she used to carry at least twice daily. Then she turns to her arms and legs, where there are scars of a skin disease she believes was caused by 'the bad water.' "I never wanted my children to go through this," she declares.

Similar determination has motivated thousands of women in both Baringo and Kisumu Districts to request for assistance from external agencies to provide accessible potable water supply in their communities. Even in some cases where the idea has come from outside, women as drawers of water have enthusiastically embraced it.

Women rarely miss 'barazas' in which development activities are discussed. At construction sites, women can be seen digging trenches, delivering sand and gravel. They also prepare food for the people working to maximise output on a designated communal work day.

In Munda's village, for example, only young men were trained as 'fundis' to maintain and repair pumps and to construct latrines. After gaining experience, most left their communities to look for better remuneration in towns, adversely affecting pump repairs.

Women Pump 'fundis'

The alternative was to train women as pump 'fundis', and Munda was in the first lot. Trainees were selected from married women settled in the community. Today, water pumps are rarely down for long unless it is a major breakdown requiring spare parts from outside the community.



Enclosing a water pump prevents watering animals at the source.

Women are now in charge of selling water at pre-determined rates, keep records and bank the money. For the less fortunate members of the community credit facilities are arranged.

Responsibilities

Committees enforce the rules concerning water use and are responsible for care of the water source, its surroundings and repairs. Some committees have devised ways of locking the pumps so that they are not used 24 hours in order to reduce the wear and

tear. Committees should fence the water point so that animals are not watered at the water source.

Water supply as a process of development

To the women, the provision of water in their midst is not an end in itself. It is rather a process of development which frees them from the daily drudgery of fetching unsafe water with the resultant water-borne diseases. Their potential to engage in activities which improve the well-being of their families and communities as a whole is greatly enhanced.

'Hoteli'

Jennifer Lomonyongole used to chair the committee preparing food for the community during the installation of a village hand pump and the construction of the cattle trough, in Barpello, Baringo District.

At the completion of the works, everybody left, but Lomonyongole, a single parent, decided to stay on. To do what she knows best. Today, she is a proud owner of what she refers to as a 'hoteli'. She provides tea and 'githeri' (a mixture of beans and maize) to people who come for water or herdsmen who come to water their animals in the cattle trough. It is also a community meeting place.

"I get enough money to buy medicine from the village pharmacy for my children and to clothe them," she says and looking happy and smart.

Diversification of activities

As women of Barpello have more time on their hands, they have diversified their activities. Some have learnt to bake bread for sale. This project reduced the impact of starvation during the 1992 great famine.

In this area, people are pastoralists. But with water now available, a canal was constructed from the cattle trough to irrigate two hectares. The women without previous knowledge are taught gardening. The food is to improve the nutritional status of the community.

A self-help society with women in the majority has put up a multi-purpose building which is used as a nursery school in the morning and adult literacy classes in the afternoon.

Twice a week, the Barpello Catholic Mission organises sewing classes in the building, targeting young women, where the majority are still clad in animal skins.

At the same time, weekly home science lessons are conducted by the CHW, with young women as the target. Guided by the CHW, women discuss the merits of use of latrines, oral rehydration therapy and how to make it at home and improved nutritional foods.

The diversification of women's activities in Barpello is typical of what happens in many areas of operation. In Loruk, for example, the community is in the process of installing a drip irrigating system for women groups to start commercial farming on a plot allocated by the Government.

Women groups are using water supply and/or sanitation as an entry point to build their communities' organisational capacity, technical competence and self-confidence.



A young woman having a go at a sewing machine.

WATER
EDUCATION
PARTICIPATION
COMMUNITY
SANITATION
IMPROVEMENT
HEALTH & C
WATER

Operation and Management (O&M) Training

Empowering communities

Operation and Management (O&M) Training is the last stage in empowering communities to find solutions to problems, enhance sustainability of the particular water supply system in the community. A three-phase locally developed training package to involve practically all members of the community at one stage or another, has been initiated.

The course covers **management awareness, operations and maintenance (technical)** In Baringo District it is conducted by personnel from World Vision and Community Management and Training Services, a Kenyan private training consultant firm, as well as District Government Officers co-opted into the programme..

Nine communities in Baringo District have been identified for training. Seven of the communities have had water supply systems for over one year and have registered themselves as societies. Further training will enable them to manage the systems smoothly. The other two communities have been selected more recently as their water supply systems are just under construction.

All training is carried out at the community level.

Course content

Phase One: Management awareness

It basically sets the stage for continuity on the concepts and importance of project management. It gives a quick rundown of all the CLT issues so that the community appreciates its role in the running of the water supply system. **During the two-day discussion at a central venue within the community and with as many members of the community as possible, emphasis is on financial management of the system.**

Phase Two: Operations

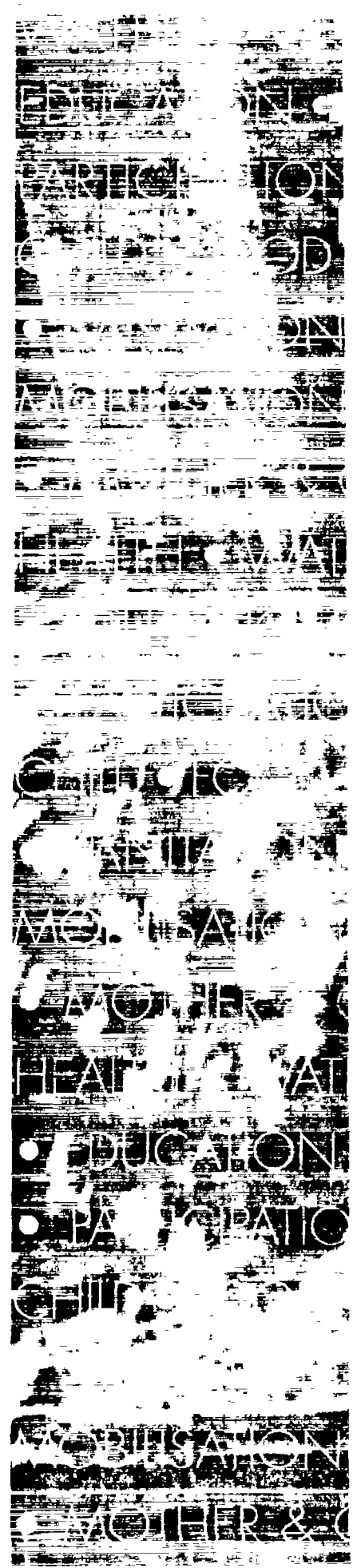
The participants, selected from the water committee or the community at large, are taught how to organise water selling sessions, banking the money and operating a bank account. This is a five-day phase for a small group of three to five people.

The participants discuss revenue collection, basic record and book keeping and expenditure. The participants have to identify the people to be in charge of selling water and banking the money.

The trainees are made to realise the money collected from water sales should be spent on buying spare parts, undertaking improvement on the supply system and compensating the 'fundi' rather than turning to external donors to solve every financial problem as it is currently the case.

Phase Three: Maintenance (technical)

Maintaining a water system needs technical input from a 'fundi'. This five-day phase is for several ordinary members of the community or 'fundis' identified by the water committee to be trained on how to keep the system in good working condition. Those trained are encouraged to continue to live in or close to the community or nearby.



Perspectives for the Future

Health education to target women and children

For the projects to make an impact on the communities, Public Health Technicians, Water for Health Assistants, Community Health Workers and Village Health Workers need to intensify health education targeting children and women.

Children are vulnerable. They are the most affected when diseases strike. Moreover, **they are in their formative years and receptive to health education.**

The fact that on average the Kenyan woman carrying a 20litre container of water expends about 200 calories per hour, which has serious implications on her health, is further justification for increasing access and reducing the workload on women and children, who constitute over 70 per cent of the population.

Women are front-line health workers, their traditional wisdom has to be reinforced with modern

methods. Women are agents of change and can influence policy decisions.

They contribute labour, provide resources and disseminate and implement innovations. Their close participation in water and sanitation projects could more effectively achieve the ultimate goals of more and safer water, resulting in better health.

Resource requirement

The resource requirement is so enormous that only collective efforts and small-scale feasible and 'doable' projects will create an opportunity for greater impact. The increasing population pressure and the economic instability in many communities necessitate timely and effective low-cost community-based interventions.

Sustainability is crucial in all these projects. Partner agencies need to join hands to create greater impact using the existing capacity and opportunity already created among the communities. Replicable projects would accelerate the development tempo.

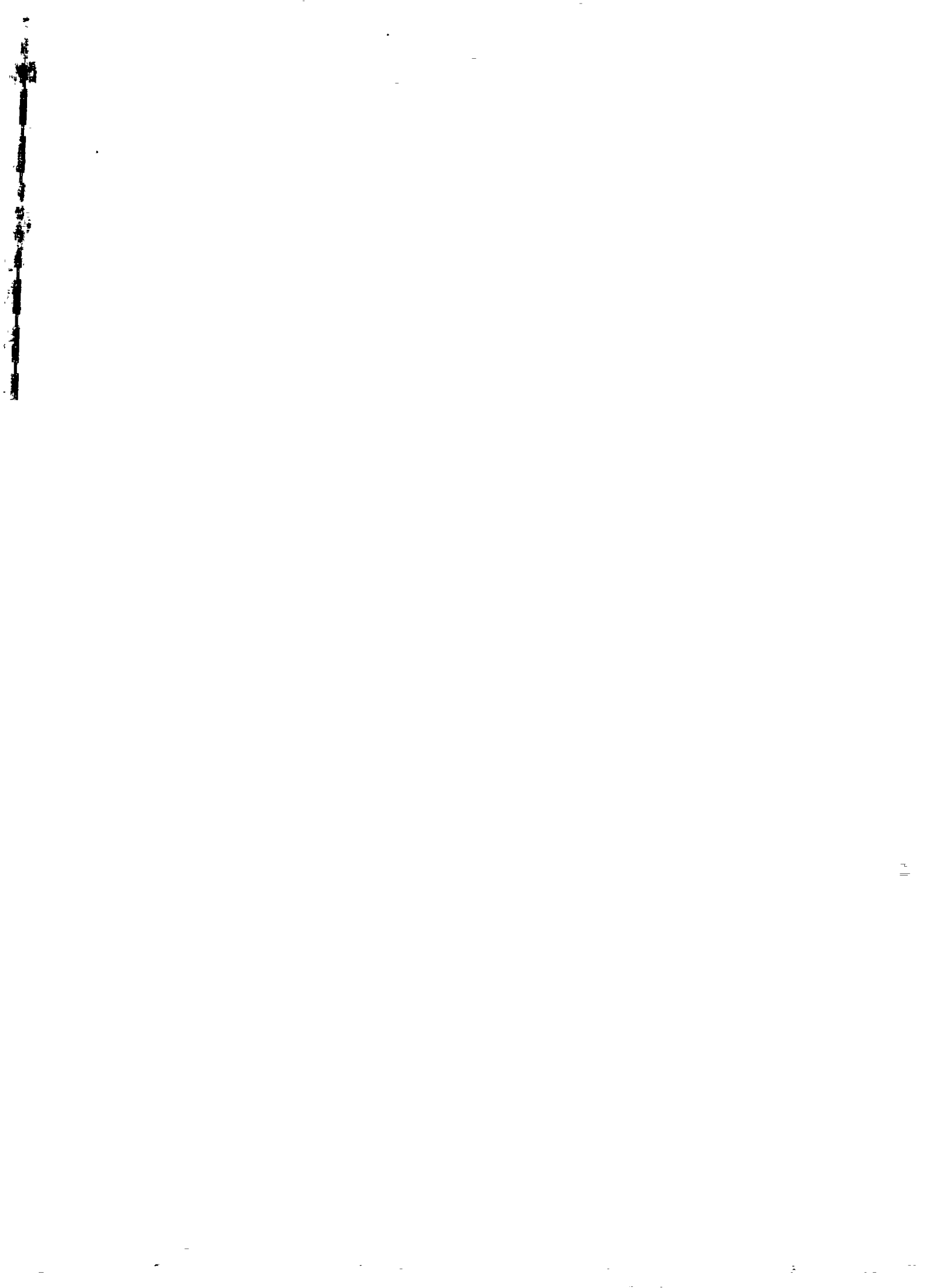


Children... target for Health Education.

Community-based
Water Supply and
Sanitation Projects

WATER
EDUCATION
PARTICIPATION
CHILD FOOD
• SANITATION
MOBILISATION
• MOTHER & C
HEALTH • WATER
EDUCATION
PARTICIPATION
CHILD FOOD
• SANITATION
MOBILISATION
• MOTHER & C
HEALTH • WATER
• EDUCATION
• PARTICIPATION
CHILD
MOBILISATION
• MOTHER & C





Community-based
Water Supply and
Sanitation Projects

WATER

EDUCATION

PARTICIPATION

CHILD PROTECTION

SANITATION

MOBILISATION

MOTHER & CHILD

HEALTH & VITAL

EDUCATION

PARTICIPATION

CHILD PROTECTION

FAMILY

MOTHER & CHILD

HEALTH & VITAL

EDUCATION

PARTICIPATION

CHILD PROTECTION

MOTHER & CHILD

EDUCATION

MOTHER & CHILD