

NETWAS Report to the ITN Meetings and NETWAS Advisory Board

November 1993

LIAISON
INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY AND
SANITATION (IRCS)



NETWAS
ITN Centre for E. A.

NETWORK FOR WATER AND SANITATION

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1 Objectives

NETWAS overall goal is to increase community based water supply and sanitation service coverage for low income groups. It aims at enhancing the sector capacity for training and information exchange.

NETWAS focuses on three main activities namely, *Training, Promotion and Advisory Services*. These are the activities agreed at the 3rd Meeting of the ITN in Zimbabwe in 1991. (see Annex 2). However a third activity, implementation of *demonstration projects* has been derived out of the activities of the host institution AMREF.

The following strategies are used:

- Support and enhancement of training in community based approach within the sector;
- Promotion of information exchange and dissemination in the sector;
- Promotion of applied research and appropriate technologies;
- Provision of consultancy and advisory services in the above areas.
- Implementation of community based demonstration projects;

These objectives are generally in line with the objectives of the ITN.

2 NETWAS Clientele

NETWAS collaborates with sector institutions in Eastern Africa. These include the following:-

- Government ministries of water and health;
- Training institutions (which train engineers, technicians, public health officers and sanitarians);
- NGOs e.g in Kenya a Participatory Learning Network comprising of NGOs, Government ministries, has been established and NETWAS offers the secretariat;
- Community groups;
- UNDP-World Bank Water and Sanitation Program; and
- Donor community operating or implementing programmes in the region.

In order to facilitate the transfer of knowledge from the institutions in the developed world into this region NETWAS collaborates with the following:-

- International Reference Centre for Waste Disposal (IRCWD) in Switzerland (which is also NETWAS Associate Institution);
- International Water and Sanitation Centre (IRC) in The Hague and
- ENSIC in Bangkok.

NETWAS is a regional programme covering Kenya, Uganda, Tanzania, Ethiopia, Eritrea and Sudan. The regional programme is funded by SDC. The country programme in Uganda is funded by DANIDA.

3 Activities

NETWAS activities are described in detail in its progress reports. They are generally in accordance with the Plan of Operations derived at the NETWAS Phase IV ZOPP Planning workshop held in September 1991.

The activities of NETWAS are in the following areas:

- Support and enhancement of training in community based approach within the sector;
- Promotion of information exchange and dissemination in the sector;
- Promotion of applied research and appropriate technologies;
- Provision of consultancy and advisory services in the above areas.
- *Implementation of community based demonstration projects:*

Annex 2 highlights some of the meetings/workshops and Seminars where NETWAS has been involved in the last few months while Annex 3 lists the projected training activities up to June 1994.

4 Funding

Funding situation in Kenya and Tanzania is still uncertain. Below is a summary of the issues relevant to the programme in each country.

Regional: This is funded by SDC up to September 1994. An Evaluation is scheduled for February 1994 followed by a ZOPP planning workshop in June 1995. The latter shall be used to prepare plans for Phase 5.

Kenya: Kenya was funded by GTZ up to December 1991. It is not clear whether there will be any funds from GTZ for Kenya in the future.

A new draft proposal was prepared by RWSG in collaboration with NETWAS for funding a Participatory Training Programme in Kenya. DANIDA has expressed an interest to fund this proposal. Plans are under way to revise and finalise the proposal.

Uganda: Uganda prepared and submitted a proposal for funding of the next phase which should commence in January 1993. An appraisal Mission from DANIDA Copenhagen appraised the project in April/May 1993. The Appraisal Team has recommended to DANIDA that the EHU project be funded for the next 5 years. The new programme is expected to commence in April 1994. In the meantime DANIDA Uganda shall provide some bridging funds.

Tanzania: No donor has yet been found to fund Tanzania. NETWAS had to accept the request of one AMREF department to have its staff member assigned to other duties in Dodoma, Tanzania.

Ethiopia: Preparation of a proposal for Ethiopia NETWAS office had been deferred after consultation with RWSG. This will be re-looked into during the next half of 1993.

5 Institutional Arrangements

AMREF NETWAS is hosted by AMREF. This is an old regional institution which specialises in supporting the efforts of the governments in the delivery of health services to the communities of Eastern Africa.

The UNDP-World Bank NETWAS however operates within the framework of the ITN as the Centre for Eastern Africa. In this respect it operates closely with the RWSG(EA). A participatory Training specialist has been seconded to NETWAS since February 1993 by RWSG to assist the former in capacity building in this area. This has served to strengthen the links between NETWAS and RWSG.

NETWAS Associate Institution On the request of NETWAS the Swiss Development Cooperation appointed an associate Institution IRCWD, to support NETWAS in research activities. Although NETWAS itself does not carry out research projects, it supports research in the collaborating institutions.

SDC NETWAS regional programme is funded by SDC. SDC appointed a consultant as early as 1989 (towards the end of second Phase) to be carrying out the monitoring of NETWAS on its behalf. This has operated quite well. The consultant prepares at least one Monitoring Mission a year.

Other Donors

Uganda is funded by DANIDA through the Environmental Health Unit of AMREF. Although EHU subscribes to the objectives of the ITN it is strictly set up with its own additional objectives especially during the second phase commencing April 1994. The next phase is geared towards supporting the Ministry of Health Division of Environmental Health, the Mbale School of Hygiene and the Nakasero School of Hygiene Annexe.

When other NETWAS subsidiary offices are finally established at country level (National ITN Centres) the host institutions may be Government Ministries or Training institutions.

6 Development of NETWAS Courses

In line with its Plan of Operations NETWAS has been making preparation to formerly launch 5 types of courses which shall be aimed specifically to the middle level sector managers and skilled workers. Some of these courses have been offered by NETWAS in the past in a non-standard form. They have primarily responded to requests from institutions and have normally been fully sponsored by NETWAS. It is proposed that in future these courses will be cost-shared with the participants or their sponsors.

NETWAS staff is currently evaluating and discussing possible course curricula including the interval at which these courses could be offered. It is hoped that the course outlines shall be ready during the last quarter of 1993. These courses and their brief descriptions are listed below.

a) Management for Sustainability Course

IRC at The Hague has been offering this course mainly to participants from the developing countries. In order to reduce the overall cost of the course IRC has been looking at a

number of options. One of the option is to offer the course in selected centres in Africa. Already this course is offered in Cameroon in joint partnership with a local institution.

Arrangements have been almost finalised with IRC for NETWAS to host and offer this course in EA. The course shall take place in Nairobi in September 1994.

b) Participatory Training Course

Rose Lidonde a PROWWESS trainer who was seconded to NETWAS in February 1993 by the UNDP-World Bank Program, is playing a key role in the capacity building of NETWAS in this area. She is steering the preparation of the curricula for the Participatory Training Course. Market survey for the demand of the course seem promising especially because government policies in all the EA countries are now evolving towards community management.

c) Information Technology Course

NETWAS has been assisting key water and sanitation institutions to establish libraries which are expected to slowly evolve into documentation centres for active and effective exchange of bibliographical, management experiences and project information. NETWAS has organised and sponsored courses in information management. These courses have been revised and remodelled to make them full courses in Information Technology. The curricula for the courses is to be finalised early next year.

d) Environmental Health Course

This is normally a one month course which has been offered by NETWAS for the last four years to students who attend the annual AMREF's 12-month Diploma in Community Health course. In the Diploma course the environmental health module is offered by NETWAS for a period of one month—normally in August/September. The course is offered using a *Problem Based Learning* methodology.

NETWAS has prepared a draft curricula of the course to be offered bout twice a year. These courses will be offered to both AMREF's Diploma students and others in the sector who may wish to attend only the EH module only.

e) Construction Skills Course

NETWAS has been offering construction skills training. This has been mainly to trainers from collaborating training institutions and also to the field officers. Occasionally such courses have been offered on a consultancy basis for the International Federation of the Red Cross in Zambia, Namibia and this year in Tanzania. Curricula for this course in being finalised.

f) Other Courses

Courses may also be offered in such other areas as Monitoring and Evaluation, preparation of training materials and posters. Tailor-made courses may also be offered on a consultancy basis.

7 Sustainability of NETWAS

NETWAS has primarily depended on grants from the donors in its development programme. This is actually the way that the host institution AMREF is also set up. NETWAS however proposes to some extent to institute some measures to create its sustainability in the future.

The immediate and long term objective of NETWAS is to develop itself into a self sustaining entity. This issue which has been given a lot of weight by the ITN especially during the last ITN Africa Region Meeting in Kumasi, Ghana. NETWAS has already been thinking in these lines and during the Monitoring Mission of NETWAS by SDC in June 1993, this was one of the issues which was highlighted.

A number of ways have been proposed. They include initiation of paid courses of duration extending up to 4 weeks, consultancy services and dissemination of technical services by the NETWAS Documentation Centre.

NETWAS is expected to undergo through an evaluation of its Phase IV programme in early 1994. The Phase IV programme ends in September 1994. It is expected that the evaluation will provide inputs to the preparation of Phase V programme. While SDC has been generous to fund the NETWAS programme since its inception in 1986, SDC expects that NETWAS should reach a stage where it becomes self sustaining. This is a challenge which NETWAS is taking very seriously. The evaluation team will be mandated to look into this and make viable recommendations.

Annex 1 Objectives of ITN

Objectives of the ITN in Africa

1. The overall goal of the ITN is to improve access to and effective use of water and sanitation on a sustainable basis by the under-served.
2. The specific objective of the ITN in Africa is to build national and regional capacity to achieve the overall and emphasizing participatory training decentralized management to women, communities and local authorities and disseminating low-cost technologies.
3. In achieving this specific objective the ITN will focus on three activities: training, promotion and advisory services.

Training

- Develop a network of training institutions to accelerate the widespread adoption of the required skills and approaches at all levels, from the community to sector managers;
- Train trainers within and outside the network of training institutions;
- Provide targeted training for senior staff with key roles in sector development.

Promotion

- Promote debate on sector wide policy issues by decision makers, to facilitate policy dialogue and reform;
- Promote in-country and intercountry exchange of information, skills, knowledge and technologies;
- Promote research that is practical and demand driven.

Advisory Services

- Provide advisory services on HRD and related institutional issues at both policy and project levels.

Resulting from the above NETWAS overall goal is to contribute to increased service coverage in community based water supply and sanitation for the low income population in Eastern Africa. NETWAS uses the HRD approach at all levels in the sector, as a vehicle to attain this objective.

Annex 2 Activities between June and December 1993

Table 1

Date	Description	No. of Participants	Participation by
29 June to 1 July 1993 Nairobi, Kenya	Regional Research Seminar in Nairobi, Kenya. Organized by NETWAS.	30	NETWAS staff Collaborating institutions in EA.
11–29 July 1993 Khartoum, Sudan	Participatory Training Workshop in Khartoum, Sudan. Organized by NETWAS in Sudan.		James Thuku Rose Mulama Lidonde
2 August to 3 September 1993	Environmental health course for AMREF's Diploma in Community Health	23	Isaack Oenga 4 Fundis
18–20 August 1993	1993 Annual Engineers Conference was held at Kericho, Kenya. Organised by MLRRWD.		Matthew Kariuki invited to attend
20–23 September 1993	Regional Water & Sanitation Seminar. Theme: Management and Sustainability in Water and Sanitation. Organized by NETWAS in Sudan.	N/A	NETWAS, Representatives from Kenya, Uganda, Tanzania, Ethiopia and Sudan.
October 1993	Seminar on Water and Sanitation Information Systems. Facilitated by WHO and UNICEF brought together participants from Coast, Nyanza, Western and Eastern Provinces. Organised by MLRRWD.		Isaack Oenga
October 1993	Workshop on Water Finance Management (WAFIM), Naivasha, Kenya. The participants were drawn from the Department of Water Development, SIDA, NETWAS, UNICEF, KWAHO and Belgium Water Team. Organised by MLRRWD.		James Thuku
October 1993	Association of Public Health Inspectors, Uganda		Matthew Kariuki invited as facilitator
October 1993	Workshop on Health Learning Materials		Rose Lidonde
October 1993			
29–30 November 1993	ITN Centres' Managers Meeting, Kenya	30	ITN Managers, Assoc. Inst., NETWAS staff, UNDP-World Bank
1–2 December 1993	ITN Africa Region Meeting, Kenya	50	ITN Managers, Govt. Reps, Donors, Assoc. Inst., NETWAS staff, UNDP-World Bank
3 December 1993	NETWAS Board Meeting	30	NETWAS Board Members
13–14 December 1993	WHO workshop on E.M., Nairobi, Kenya		Matthew Kariuki, Mary Munano

Annex 3 Planned Activities (January – June 1994)

The following is a summary of planned activities between January and June 1994. Only the training workshops/seminars or courses are indicated.

<u>Date</u>	<u>Description</u>	<u>Participation by</u>
24 January to 6 February 1994	Construction Skills workshop in Jimma Institute of Health Sciences, Ethiopia. Organized by NETWAS.	James Thuku 3 Fundis, Matthew Kariuki
14 February to 5 March 1994	Evaluation of NETWAS by external consultants.	All NETWAS staff
7–8 March 1994	Workshop on the Evaluation of NETWAS	All NETWAS staff
4 February to 14 May 1994	Course on Information in Belgium	Mary Munano
21 February to 2 March 1994	Participatory Training Workshop for RUWASA. Organized by NETWAS.	Rose Lidonde, Isaack Oenga
13–20 March 1994	Pre-planning workshop in Sudan in preparation for Participatory Training Workshop a week later. Organized by NETWAS	Theresa Riunge, Rose Lidonde, James Thuku
27 March to 7 April	Participatory Training Workshop in Sudan. Organized by NETWAS	Theresa Riunge, Rose Lidonde, James Thuku
25–29 April 1994	Pre-planning workshop in Gondar, Ethiopia in preparation for Participatory Training Workshop a week later. Organized by NETWAS	Rose Lidonde, James Thuku
9–18 May 1994	Participatory Training Workshop in Gondar, Ethiopia. Organized by NETWAS	Rose Lidonde, James Thuku
June 1994	ZOPP workshop to plan NETWAS Phase V	All NETWAS staff

Nyamware-Kionyo Water and Sanitation Project

Presented by Gabriel Achochi Ngwono, Project Chairman

Project initiation

The Nyamware-Kionyo water and sanitation project is in Kisii district. Kisii district has the highest population density in the world. Due to population density, the water sources are increasing getting under pressure. Contamination from agricultural as well as human excreta disposal create a very high health risk. Cultivation is rampant both in the river banks and on the steep hill slopes. This is causing great concern in the communities within the district. We in the Nyamware - Kionyo area covering Bassi Boitanga're, Bassi Central and Bassi Masige locations have realised the problem and are taking measures to curb the risks. One such measure has yielded the water and sanitation project.

Prior to the commencement of this project, the community held several public meetings on identifying common problems. Lack of clean water and lack of suitable toilets at individual homes and at schools was identified as a crucial problem.

The community set up a committee to look into these problems among others. The committee resolved to approach AMREF and other non-governmental bodies for assistance.

AMREF/Community association

A couple of months ago the committee received information that the community had been aided by SIMAVI through AMREF. The project received DDC approval.

The project committee then held committee meetings to draw a work programme for the project. The project started in June 1993 and is in good progress now.

For this my community wishes to thank SIMAVI very sincerely for the aid. We also thank AMREF for the part it has played in this connection. We hope that SIMAVI will extend the funding to some of schools within the 3 locations that are currently not covered. It may also be useful for AMREF to request SIMAVI to tour the project to see for themselves the good help they have given us. We wish to thank SIMAVI most sincerely.

Community participation

It was made clear from the start by AMREF personnel that the community had to undertake to supply labour for digging latrine pits, unskilled labour during construction of the water tanks and toilets and to supply rough stones for doing the same. This was taken without problem. In this regard the community has contributed labour for 118,800 hours valued at ksh. 12/hr which is equivalent to 1,400,000.

Project Management

The management of the project is done by the project management committee. The committee is composed of 12 men and 3 women. The committee was elected by the community each representing a specific village. The management committee holds regular

monthly meetings. AMREF has so far attended all these meetings as a technical advisor. There is also an executive committee, drawn from the management committee members, which deals with any urgent project matters. AMREF is also represented.

Communication to the beneficiaries

On the start of the project the management committee solicited support from the beneficiaries, especially the school committees. AMREF staff was involved in doing this. The project committee communicates with beneficiaries through committee members, individual visits to the schools and through public barazas. Written reports on the project progress is submitted to AMREF once a month.

Finance handling

Project donor funds are currently handled through AMREF. Purchases are done with the approval of the management committee against the work plans. The monthly work plans are prepared during the management committee meetings. This arrangement suits the communities requirements as handling large sums of funds within the community is not feasible at the moment.

Impact of the project

In the past community members have used corrugated iron tanks (mabati) to store rainwater harvested from their roofs. These tanks are usually small and often rust quickly. The ferrocement tanks as being built by the project are indeed suitable. Pit latrines have traditionally been used for human excreta disposal. Due to lack of alternative defecating sites as every inch of land is used and the christian teachings most households have a pit latrine. However many of these latrines are poorly built, used and maintained. The use of concrete slabs make the ceaning of the latrines easier. The community appreciates the improvement on the already known technologies being done by AMREF. Many schools that are not included in the project have approached the management committee for assistance. Several individuals have also done the same.

The use of local fundis has a two fold impact. First the fundis get some employment even though short. Secondly they gain technical knowledge which will be used by the individual households to construct their own water tanks and improved pit latrines. In order to enhance the proper use of the facilities and to sensitise the community a workshop is proposed for December 1993. The participants will be the project committee and one person selected by each of the fifteen villages making the project area.

I wish to thank SIMAVI for funding the project and also thank AMREF, very sincerely, for having made it possible for me to address you this afternoon.

Thank you.

Gelegele water supply and sanitation project

Report presented by Justus K. Langat grassroot representative at fifth ITN Africa Regional Meeting at Naivasha on 29th Nov - 2nd Dec 1993

1. Initiation of the project

Gelegele Water Supply and Sanitation project was first initiated in 1988 when the community felt that there was urgent need to improve health among the members. A series of meetings were organised between the community and the local public health technicians.

The problem areas cited as the major causes of health problems in the community were unclean water and improper faeces disposal. Statistics from the local health centre showed that most of the diseases treated were diarrhoeal and other water related diseases.

After a few months, the community resolved that it was necessary to request for assistance from charitable organisations to assist in promotion of health by educating the community on the importance of clean water and personal hygiene in homes. AMREF was one such organisation we gave the proposal. AMREF responded positively and soon personnel were sent to the area to do some feasibility study on the project.

2. Project management

The first step of the initiation of the project was to form a committee which comprises people from the community. Gelegele comprises of nine villages. Each village has one representative as follows.

1. Mr. Ezekiel Kauria - Tabarit village - Chairman
2. Mr. Philip Ngeno - Chepchirik - Treasurer
3. Mr. William Chumo - Kelonget
4. Mrs. Mary Koske - Kaboswa
5. Mr. Mrs Lydia Soi - Kiptenden
6. Mr. Joseph Ngeny - Kapolaya - Vice Chairman
7. Mr. Daniel Ngeno - Kondamet
8. Mr. Mr. Nicholas Soi - Kipsimbor - Assistant Secretary
9. Mrs. Rael Mitei - Koiyet
10. Mr. Justus Langat - secretary

The ex-officials are

1. Assistant chief
2. Public Health Technician
3. Community Development Assistant (C.D.A.)
4. AMREF was coopted once the project started

The project was registered on October 1990 under self-help group in the Ministry of Culture and Social services.

3. Objectives of the projects

There are three main objectives of the project: ~~mainly~~,
a) To educate and provide the community with clean water for domestic use in homes especially for drinking and cooking purposes.

- b) To ensure every homestead constructs pit latrine to curb the diseases associated with improper faeces disposal.
- c) To train local artisans who will assist in construction of water tanks and pit latrines.

The project therefore intends to start its work as follows.

- i) Construct water tanks in institutions before proceeding to homesteads.
- ii) Construct pit latrines in institutions before proceeding to homesteads.
- iii) Conduct health seminars.

4. Situation before the project started

Gelegele is a hilly area which receives enough rainfall but there are no rivers. There are a few dams and springs which dry up during dry seasons. Most people on hilly slopes have to travel between 3 and 8 km to fetch water for use in homes. In most cases the dam water is unclean and unsuitable for drinking. Some able people within the community had constructed water tanks but because of lack of technological know-how, many of these tanks have cracked and rendered useless.

Large families have a big problem because the women have to go for water at least twice a day. Some have tried to alleviate the problem by using donkeys to transport water.

5. Project implementation

The committee held meetings regularly to discuss various issues relating to project implementations and to pass the same to the community.

The work of constructing water tanks started in schools. The project provided all the materials required and the skilled labour while the community provided unskilled labour.

In every primary school, the parents organised themselves so that they come in turns during the constructions. Their work was mainly collecting rough stones and digging the pits.

When the work was finished in all the five schools, it was extended to homes. The committee recommended how the community should be assisted in homes.

It was agreed that every family wishing to construct a water tank will pay a sum of ten thousand shillings (10,000/=) to meet the cost of purchasing all the necessary materials.

The project assisted only in the transportation of the materials to the construction site. Every home also provides rough stones and unskilled labour while the project provided skilled labour.

Some young men were recruited from the various villages to work and be trained by skilled AMREF personnel in the course of construction.

Right now every school has two water tanks except the secondary school which has four because it is partly a boarding school. All the schools have enough pit latrines.

The work right now is going on except that the project does not have funds for transportation of materials.

More than twenty water tanks have been constructed and many people are ready to construct. The work on pit latrines is underway and we expect to start any time from now.

6. Communication between AMREF And the community

The success of the project lies largely on the AMREF personnel who have worked very closely with the committee and the local community. Their expertise, dedication and excellent public relations enabled the project to take-off nicely.

The AMREF personnel did everything possible within their means to encourage and gave morale to the local community. They have been very consistent and practical in their deeds.

Our sincere gratitude goes to Mr. Isaack Oenga who has been very practical himself and has guided and encouraged the committee to work together as a team. He attended most of the committee meetings and gave alot of advice on the general organisation of the work.

Already two seminars on hygiene education have been organised. The seminars were very successful and the participants appreciated alot. We still have plans to hold more seminars subject to availability of funds.

7. Impact of the project

All the members of the community who have constructed water tanks appreciate very much the need for the tanks. Many people I interviewed admit that they now have less health problems among their children. The women in general have welcome the project because it has lessened their burden of having to go for water in distant places.

Some women have formed groups through which they raise funds purposely for the construction of water tanks in their homes. The work can now go on even in the absence of the AMREF personnel.

Statistics from the local health centre also indicate that there is a reasonable drop in the number of diarrhoeal cases and other water related diseases especially in children.

8. Problems

Although there have been no major problem since the project started, there are some areas which we intend to stress even the more.

The first problem which the project faced is that of training local artisans. Most of the young men who were recruited to be trained left because according to them, they thought it was employment and therefore expected to be paid monthly salary.

Infact there are only two artisans we can claim to have. As the work continues, we intend to encourage more to join ~~in~~ the training.

The second problem is that although many people are willing to construct water tanks their economic status can not allow them. Most people can not afford to raise the money required for the purchase of materials. Assistance is needed to enable them construct one.

Thirdly is on health seminars, we discovered that it was difficult for mothers with babies to attend the seminars although they are the target group. This was due to the venue of

the seminar. Seminars for such mothers need to be very near so that they are able to attend to their young children at the end of the day.

We hope to find a solution to this problem when we organise another one.

ACKNOWLEDGEMENT

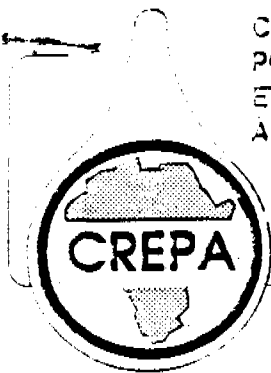
My sincere gratitude goes to AMREF and NETWAS in general for the support and encouragement we got from them.

Our thanks goes mainly to Mr. Isaack Oenga and his staff for the manner in which they have organised and coordinated the project in my area.

I will not also forget to thank sincerely the donor countries who have provided the much needed assistance, thank you all.

Justus K. Langat

Grassroot representative
Gelegele Water and Sanitation Project



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**5th ANNUAL CONFERENCE
OF THE INTERNATIONAL TRAINING
NETWORK FOR WATER AND WASTE
MANAGEMENT**

SAFARILAND LODGE - KENYA

29th NOVEMBER TO 2nd DECEMBER 1993

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ABBREVIATIONS

CREPA :	Regional Centre for Low-cost drinkable water and sanitation
C.C. :	CREPA Centre
C.N.U :	CREPA National Unit
CIEH:	Inter African Committee for Hydraulic Studies
ETSHER :	Inter- States High School for Technicians of Hydraulics and Rural Equipment
EIER :	Inter - States high-School for Engineers of Rural Equipment
GREA :	Regional Group for Water Supply and Sanitation
EPFL :	Federal Polytechnical School of Lausanne
T. A. :	Appropriate Technologies
ENSTP :	National High School for Public Works
AEPA :	Water Supply and Sanitation
3 I :	EIER, ETSHER, CIEH

1 - INTRODUCTION

The year 1993 has mainly been devoted to reflexion and calling into question the five years of activities spent in Burkina Faso and the thirteen member countries of CREPA. This reflexion has been materialized by three determining meetings for CREPA's future actions :

- . Internal assessment of CREPA
- . External evaluation of CREPA in february 1993
- . Meeting of Orientation Committee in May 1993

CREPA's plans of action both in Burkina Faso and its antennae had to be reorganized in connection with the difficult financial circumstances that one of CREPA's financial backers particularly the Canadian Agency for International Development is facing. This programme has targeted four pilot countries to put into practice the new strategy orientation devised by the both internal assessment and the external evaluation.

The growth of human resources, the putting in place of national networks and partners, the training in participative methods and applied research have been developed in the four countries.

2 - MAIN ACTIVITIES IN 1993 : Internal assessment and external evaluation

2.1. Internal assessment

The main objective of this workshop consisted in bringing up to date CREPA's programme orientations taking into account the experiences shown in the countries and the main ideas of UNDP (United Nations Development programme) / World Bank.

This workshop which gathered CREPA centre (CC), six national CREPA unit (NCU) three guest-institutions (CIEH, EIER, ETHSER), GREA and EPFL took place in four main steps . The key ideas are summed up as follows :

- Decentralization of activities towards the NCU ad use of some sort of hand overs like private structures and NGOs for the dissemination of training and information actions in countries.
- CREPA must have an ascending approach toward the dissemination of training, information and techniques and be listening to the users, where their needs are identified and their capacities used.
- It is urgent to consolidated CREPA centre with a communication person and develop participative approachees in the CNU by means of resource persons.
- Research must change from the technical domain to the socio-economic and cultural one. In return, these researches will raise technical questions which must be solved through pilot projects.

This internal assessment has brought out six results to be reached for the planning of CREPA's activities from 1995 to 1999 :

R1 = A programme of participative training on appropriate technologies (A.T) is integrated into the curriculum of regional and national school for engineers and technicians from member countries of the water pole.

R2 = Human resources necessary for developing AT are consolidated in administrative areas, collectivities, associations, NGOs and private sectors.

R3 = A common centre for documentation and information is available in the countries.

R4 = Communities likely to benefit from AT take part in the identification, design, planning and execution of actions on information and sensitization.

R5 = A motivated and functional network for AT promotion exists in the countries.

R6 = A centre of reference for the developing and promoting of AT is functioning and keeps the network moving.

2.2. Results of external evaluation

After the internal assessment, the external evaluation of CREPA took place in February 1993. This event turned out to be a key moment for the centres life and mobilized human resources of CREPA and the three CNU (Benin, Côte d'Ivoire and Mali) for one month. The principal information and results to be drawn from this exercise are as follows :

CREPA has played its role which consists in consolidating the competences and capacities of the countries as regards achieving and taking care of appropriate technologies in water supply and sanitation through training, information, exchange of experiences and research.

- As far as training is concerned

CREPA has managed to lay the foundations of a policy of promotion of AT in the member countries of CIEH. This institution together with the two schools EIER and ETSSHER which train engineers and high level technicians have right now a wealth of knowledge which favours the integration of AT into sector-based policies in the countries.

- As far as information and exchange of experiences are concerned

The efforts of CREPA are very limited. The INFO CREPA bulletin is not widely distributed. Its contents would be enriched by case studies on the performance of AT set up for experimentation or demonstration purposes and on the behaviour of users. Innovative strategies are not put forward concerning information and exchanges of experiences.

- Applied research and demonstration

On the whole, the evaluation mission noticed that the research and training activities of CREPA which are fully linked are effective. The results need now to be consolidated and popularized through a process necessitating a redefinition of CREPA's mandate and priorities.

Therefore, the evaluation team has asked the following questions :

* Who should be the main recipients of the ATs promotion policy ? Where are they ?

* What are the social actors and contributors ? Who are more likely to reach the populations not served or poorly served ? What are the mechanisms and the most appropriate ways to reach them ? What are the demands and the costs of their real participation in choosing the AT and putting it into practice.

All these questionings give more perspectives on the strategy which better matches the new mandate of CREPA with the requirements of the fight against poverty.

2.3. Recommendations of external evaluation

The evaluation mission recommends :

- . An updating of the mandate, stressing more on non-served communities and the importance of their participation in decision making.
- . The spreading of participative methodology to reach these populations.
- . The training of CREPA personnel and all of contributors in this method.
- . The setting up of an orientation committee playing the part of an administration council which will support the whole process by its actions and advice.

2.4. New strategy and orientations of CREPA

The suggested strategy endows CREPA's action with a bottom up movement which proceeds from the needs and perceptions of users regarding water supply and sanitation. This strategy implies the identification of reliable partners capable of playing fully their role of disseminating these technologies by adapted services beyond reproach. These partners could be NGOs, women's and youth's associations and small private enterprises which would be fully responsible for decentralisation. Support will be concentrated in a limited number of NCU (4 to 5) although giving a slight help to other NCU. The determining components of this strategy are :

- . Participative training
- . Institutionalization of teaching AT in training schools for engineers and technicians
- . Participative research

- . Local planning and mobilization of resources
- . Construction and maintenance
- . Follow up / evaluation and evaluation itself
- . Education in health and hygien matters
- . Information and exchange of experiences
- . Setting up of an orientation committee including NCU, 3 I, CREPA, GREA and other associated institution.

National Health Unit

3 - OTHER ACTIVITES PERFORMED IN 1993

3.1. Development resources

• Côte d'Ivoire

Within the context of the new strategy of developing local capacities of small private enterprises, a training workshop for handi-workers has been carried out in Yamoussoukro. This workshop which took place from 23rd april to 3rd May , made it possible to train five craftsmen (handiworkers), two engineering students and two teachers from ENSTP. This training is within the scope of the national programme for water supply to small hamlets (50 à 500 inhabitants). It has just finished the series of training done by CREPA in Cote d'Ivoire and which had as target group, social organisers, decision makers and administrative officers responsible for districts and constituencies. CREPA Côte d'Ivoire has now available resources which allow it to start micro-projects using relay-structures.

• Guinea

A training for trainers in AEPA was done in july in Conakry. This training was essentially directed to engineers and technicians of NCU in Guinea. This workshop comes within the national programme for developing human resources intended to wack the pilot-project for sanitation financed by UNICEF.

Within the same project, a second training course for handiworkers took place in october 1993. The objective of this worshop was to put at the disposal of the project and small local enterprises local capacities likely to intervene in the construction of ventilated improved pit latrines, manual flush latrines, the digging of wide diameter wells, the restoration of traditional latrines and the making of fountains. About twenty works have been constructed or restored with the help of local workers. These people working on their own or coming from small private enterprises are ready to take part in this national programme for sanitation.

• Burkina Faso

NCU of Burkina organized a workshop which took place from 30th june to 2nd july 1993 in the offices of the headquarters of education for health and sanitation. The main objective of this workshop was to inform and sensitize the participants on the advantages and the importance of community participation in the implementation of appropriate technologies.

The training of the members of grassroot associations in pilot project management to collect and clear solid wastes from wogodogo. This micro project, which started six

months ago, will be presented to you during our works. We must bear in mind that its principal objective is to improve the sanitary conditions of people living on the suburban area of wogodogo in Ouagadougou and the creation of jobs in this area with high rate unemployed young people.

This micro-project also shows that the CREPA team is experiencing together with the animators and town authorities an experience of "structured process of learning", since the interaction of socio-economic, cultural, technical, institutional and financial factors is not yet mastered by the different partners in the project. The recipient populations are satisfied with the services, and the number of paying subscribers is increasing every month to reach seven hundred families, that is five thousand people roughly. The training given by the CREPA team in the sector have consisted of :

- promoting an active animation strategy through debates by introducing notions of diseases closely linked to water and the use of domestic waste :
- training the promoters of the project in the management and operation of equipment supplies the maintaining of open book keeping and the collecting of charges from subscribers ;
- organising base associations for the sorting out and implementation of compost areas in order to decrease the quantity of waste to stock in the garbage dump on the hand and on the other hand, to increase financial resources of womens's associations ready to enter into activities enhancing waste value.

3.2. Implementation of national networks in AEPA

- Micro-projects in Benin, Burkina, Mali and Côte d'Ivoire

. Burkina Faso and Benin

The change in policy undertaken by CREPA since the external evaluation needs outside support. Communication with the population through the different elements of the participative method must necessarily take place or be put into practice on the fields by micro-projects planned and carried out in close connection with the populations.

The micro-projects for the collection and disposal of solid waste at wogodogo in Burkina is based on the self-promotion strategy of the suburban populations who manage, execute and control the project. The benefits drawn from these are reinvested in the district to acquire profitable social equipments, such as latrines or paying fountains. In those two countries, the partners in NCU have set up base associations organized in cooperatives.

. Mali and Côte d'Ivoire

These two antennae use NGOs for the management of micro-projects : these two micro-projects will be composed for one part, in Mali, of the implementation of a programme of latrines and the construction of washing areas, and for the other, in Côte d'Ivoire, of the water supply for populations and the disposal of solid wastes in the secondary town of Sikensie.

The basic objective of this strategy is the implementation of a network composed of national partners from private sector, NGOs and base associations. The identification of these partners is under way in some chosen pilot countries.

- *Consolidation of local capacities in private sector*

CREPA has contributed much to the development of the african expertise in AT by training about one thousand contributors composed of engineers, technicians, trainers, in addition to national and regional school students.

This potential existing in the countries is used in development projects at the base and by CREPA in Micro-projects. With the privatization of numerous economic sectors in different african countries, most of the abilities put at the disposal of the countries turn out to unused. The young professionals of the sector and students get together to set up engineers departments linked to NCU ; this is the case in Mali, Benin and Burkina Faso. The capacities of these branches are consolidated by their implication in micro-projects.

In medium and long terms, these private departments will play their role of expertise agents in the sector of environment and sanitation.

3.3. Training in participative methods

The implementation, the improvement and the finalization of a participative method as regards AT are a preliminary and decisive step for CREPA .

The identification of needs in the different social groups in AT, the analysis of solutions and the choice of the AT most adapted to the financial and management capacities of the concerned groups, the forms of their participation in the building and maintenance, the follow up and evaluation are essential facts taken into account by the participative training in appraising the projects.

In the CREPA programme of 1993, a training of its staff in participative methods took place from 8 to 13 november in Ouagadougou. CREPA has then drawn a maximum profit from the lessons PROWESS / AFRICA.

A unit for the training of engineers and technicians in water supply and sanitation sector in the participative methods was worked out for CREPA team mainly composed of engineers and technicians.

It's planned, in the coming months, to set up the other types of units of participative training for national decision makers and their multilateral and bilateral partners, school trainers, representatives of NCU and NGOs, base associations (see diagram).

3.4. Communication / Information / Documentation

One must note the consolidation of CREPA team by a communicating librarian who will back the management of the library and documentation. This person will be also in charge of a more regular appearance of INFO CREPA bulletin. This information paper will be constantly enriched with data coming from countries towards CREPA partners. Competent resource - persons will be encouraged to participate in making case - studies of national experiences favourable to the participation of users to the low - cost approach.

3.5. Applied research

CREPA has undertaken since May 1993 a change which will lead to a gradual decrease of applied researches on technical grounds to the profit of socio-economic and cultural research. The CREPA team, helped by a communicating person and a communicating librarian, must be based on experience already gained in micro - projects performing this technical research within the micro-project existing in Cotonou (Benin) and Ouagadougou in Burkina Faso on the collection and disposal of waste.

The following themes of participative researches have been chosen

Variables	Partners concerned	How ?
1 - Sociocultural		
Inter - ethnic report	contributors and promoters + population	semi - directive talk + survey
Gender	association (women and men)	talks + debates
Relationship between different age - groups	association and political parties	talks and discussions
Demographic burden (youth)	town hall, sanitary services , etc...	statistics - demography
Religious belief and its weight in decision making	imams, priest, pastors, populations	semi-directive observations and talks

Belief, practice and habit in relation to the O.M	tradition - keepers and leaders of opinions	idem
Powerty and degree of motivation	contributors	observation, talk
Local forms of organization	associations + political parties	idem
<u>2 - Politics / Power political</u>		
	women's organizations	talks
Decision centre	leaders	talks
Advantages - drawbacks	administration	talks + analyses
<u>3 - Institutional</u>		
Influence low hall	youth	
Management committee	composition (wise women and men)	
Participation high - commissionership and ONASENE (committee of coordination)	economic division	
Statut and rule	ONASENE - National antenna	
Convention		
<u>4 - Economic</u>		
Management (who collect)		
Bank account		
Cost transport - unloading		
Salaries - paying off and material		

4 - TOWARDS A THIRD STAGE IN CLOSE CONNECTION WITH BASE COMMUNITIES, NGOs AND PRIVATE SECTORS

A third stage 1995 - 1999 is being setup from the recommendation of internal assessment and external evaluation of CREPA. This step will take into account the following strategic elements :

- . Adoption by CREPA of methodology which gives greater importance to the user and his need ; it relies on participative training and research ; planning and mobilization of local resources (competences and building material) in building and maintenance, follow up / evaluation and evaluation with users.

- . Familiarization of CREPA personnel all the contributors and supported institutions with the process of participation of the user and taking into account his request.

- . Adoption of a double register of action : support to the base contributors and training institutions.

In effect, the immediate and privileged partners will be the members of a network of NCU, NGO's youth associations, women and professional ones (formers students from EIER and ETSHER for example) who support participative approach of the sector.

- . Two or three NCU are likely to be encouraged during the transitional step from 1993 to 1994 to test this participative and integrated approach to the development of AT.

- . All the initiatives and lessons which proceed from this partnership with the basis have to produce case studies (to be achieved by the CREPA network members) which will sustain a system of information and exchange of experiences at national, regional and international level.

- . The course which will be given either in regional schools EIER and ETSHER or national ones, will have also to be enriched with a training in participative methods and analysis of CREPA network experiences. Training courses with the help of agents and organizations working on the field will allow students from these schools to familiarize themselves with the AT problem in the field.

- . Emergizing the role of CIEH is a basic operation in the process of consolidating local competences. The best expression of the political will of african leaders in this area will be the effective taking into account of these technologies and participative approach in the planning and financing in the area. CIEH may insist on this requirement, without any prejudice for the autonomy and initiatives from non government, organisations members of CREPA network (NGO, GIE).

- . A committee of orientation, including representative from CIEH, EIER, ETSHER, GREA members from some dynamic NCU and resource persons will help CREPA in the elaboration of this strategy.

**TRAINING
CENTRE FOR
WATER AND
SANITATION**

Summary of Activities

(1989 to date)

**REPORT ON THE TRAINING CENTER FOR WATER AND SANITATION
ACTIVITIES 1989 TO DATE**

BACKGROUND

The Training Center For Water and sanitation was established in 1989 as part of an initiative by UNDP -World Bank to address the capacity building needs of developing countries. The project has since its inception been housed within the University of Zimbabwe, Civil Engineering department.

PURPOSE

The purpose was to build local capacity initially in Zimbabwe and ultimately in other countries of the sub region, to extend water supply and sanitation services to low-income groups, using primarily low cost and community based approaches

OBJECTIVES

- 1 To improve the living conditions of low income population groups in peri-urban and rural areas. This was to be achieved in accordance with existing policy and institutional arrangements for the sector by strengthening local implementation capacity
- 2 Increase capacity of government and other institutions to train sector staff in low cost appropriate water supply and sanitation by conducting workshops for instructors, specialized courses for sector staff and undergraduate training
- 3 Disseminate information
- 4 Conduct applied research

EXPECTED OUTPUTS

- 1 Approximately 30 staff and key personnel of the department of Civil Engineering and other departments within the University of Zimbabwe with interest in water and sanitation and related sectors familiarized with objectives, resources and operations of the center
- 2 Detailed workplan of support to the sector drafted
- 3 Improved ability of approximately 100 instructors to train in low cost water supply and sanitation
- 4 Approximately 150 graduates with increased understanding of low cost water supply and sanitation.
- 5 Government and other sector personnel assisted so as to better implement water and sanitation projects
- 6 The Civil Engineering library fully developed as a reference center and depository for technical studies and research reports bearing on low cost water and sanitation technologies, community based approaches to sector development and other technical issues and problems

- 7 Training materials ,teaching aids and a revised syllabi prepared and adapted to the needs of Zimbabwe.
- 8 Applied research program with quantifiable outputs by year 2

APPROACHES ADOPTED

The approach initially taken was to concentrate on training as applied research activities take time to bear fruit and an information reference system not a high demand at implementation level. Training at the time was identified as a felt need. Over the project life, research programs and have been developed and information system built up.

The training Center has also offered technical support to the sector in Zimbabwe and in the region in areas of policy development and institutional reform. All the training has been self -financing as the budget did not include finance for participants.

Staff recruitment has tried to maintain the balance between the hardware and software components of the project by combining the engineering aspects, social and management aspects.

The approach has been not to compete with other sector agencies but to participate in the capacity building

STAFF

The Center which started with a very few staff compliment of 3 has expanded and at the moment has the following placements:

Dr Paul Taylor	Director
Mr Ngoni Mudege	Project Officer
Mrs Noma Musabayane	Project Officer
Mr David Proudfoot	Consultant
1 vacant post for a Project Officer [to be filled in January]	
Ms Tuki Gwata	Administrative assistant
1 Temporary secretary	
1 Office Orderly	

In addition to this staff the Center uses facilitators from the sector and the department in the delivery of its services.

PROJECT DURATION

The planned project duration was three years and the possibility of extending the project for the benefit of other countries were to be assessed later. With budget savings the project was extended to Dec 1994

OUTPUTS

Training and workshops

The training Center has conducted several training courses for participants from Zimbabwe and the region, and a few within the region. Details of the training are in annex 1. During the four years of activity 383 participants have been trained.

The Center has also organized, facilitated and participated in the workshops related to the sector eg details in table

below. Among the activities undertaken, the center developed guidelines for the National Action Committee [NAC] on the management and implantation of decentralized water and sanitation by the Rural district councils, attends the sub committees of the NAC and collaborates with the sector personnel through consultative meetings. Consultation work has also been undertaken within and outside the country

Year and month	Workshop/Seminar	Role
Jan 1992	Nyanga Sector Review	organizer with NAC
Sept 1992	Technical Review	participant
1992	Gokwe w/shop on decentralization	facilitator
1992	Kadoma w/shop an NAC meeting to follow up on the Nyanga W/shop recommendations	advisory
1992	Participatory evaluation on behalf of Save the children UK	facilitator
1992	workshop on decentralized planning funded by UNICEF	facilitator
Oct 1993	Regional w/shop on health and hygiene	host/facilitator
Aug 1993	Water Resource Management National w/shop	facilitator
1993	EDI water Resource management	assisted in preparation for and attended the w/shop
1993	National consultative meeting on the sector capacity building needs	hosted

Studies carried out by the Center

Studies carried out by the TCWS or in collaboration with other agencies are:

- *Rural Community Infrastructure: building on Rural Water Supply and Sanitation program, World Bank
- *Review of the Hygiene Education and Sanitation Promotion component of the Mpira Balaka project, Malawi. DANIDA
- *DDF Human Resources Development for operations and maintenance Section

- *Case Study of the country level Collaboration
- *Emergency Drought Relief programs in Zimbabwe.Lessons for Today from Past Experience
- *Drought Relief Mission Report, World Bank
- *Evaluation of the Sida Health Education, Water and Sanitation program.MOHCW
- *Guidelines on the Management of Rural Water Supplies and Sanitation by the Rural District Councils
- *Water Supply and Sanitation in Lesotho,UNDP

Information Services

A fairly well equipped and computerized library accessible to those in the sector has been developed.The demand for use of the library has increased and in a recent workshop on Health and Hygiene hosted by the Training Center, a recommendation was made that all materials be sent to the Center which will act as a depository for the region.

Research

The center is administering a small fund for research donated by IDRC and so far has disbursed funds to 3 people who have produced papers in the following areas:

- Bilharzia
- Community Management
- Health Education

In 1994 training programme a two-week course on research methodologies will be run and it is hoped to be linked to practical research.

A health impact on water and sanitation study which is being carried out in conjunction with the Swiss Tropical PHD student and the Blair Research Laboratory is underway and due to be completed early next year.

Transition to Institute for Water and Sanitation Development

At the moment the training Center is in the process of transforming itself into a non-governmental and non profit making organization to be known as the INSTITUTE FOR WATER AND SANITATION DEVELOPMENT still based at the University of Zimbabwe. It is governed by a constitution. By the end of December all arrangements ie administrative, financial and personnel should be in place and the new institute coming into being in January of 1994.The Institute will initially be funded by the UNDP -World bank on a three year phasing period whiles it gets on its feet.

A board of directors drawing representation from those interested in the water and sanitation sector has been elected and draft terms of reference between the World Bank-UNDP and the Institute drawn up.The faculty of Engineering supports the formation of the Institute and are willing to continue hosting it within the department of Civil Engineering.

OBJECTIVES OF THE INSTITUTE

*To contribute to capacity building [human resource development, institutional strengthening and policy reform] in the water and sanitation;

*to promote and undertake the training of water and sanitation personnel and trainers in technical, managerial, economic and social issues to increase performance and productivity;

*to develop independent advisory service to government, local authorities, private sector and international organisations in management of water and sanitation;

*to develop an information support service for state of the art information pertaining to all aspects of water supply and sanitation;

*to promote and undertake applied research in the work place and at graduate and postgraduate levels in the area of water supply and sanitation.

TRAINING CENTRE FOR WATER & SANITATIONSummary of Training Courses : 1990-1993

Course Title	Dates	Duration	No. of Trainees	Origin and number of Trainees	Origin of Funds	Origin of Lecturers
(Z)Management & Evaluation of Water & Sanitation Projects - Training of Trainers	Feb 5-16, 1990	2wks	6	MoH(4) DDF(2)	TCWS	TCWS
(R)Monitoring of Water Quality	Mar 19-30 1990	2wks	25	Zimbabwe (22) Botswana(2) Zambia(1)	NORAD Town Councils Christian Care Botswana Govt Zambia Govt	TCWS MEWRD DDF Dept of Works UZ-Civil Eng
(Z)Planning of Integrated Water & Sanitation Projects	May 7-18 1990	2wks	28	MLGRUD(28)	NCU	TCWS NCU Blair Research
(Z)Management & Evaluation of Water & Sanitation Projects	May 28-Jun 8,1990	2wks	23	MoH(3), MLGRUD(4), DDF(4) MCCD(1), DERUDE(4) CADEC(5), Christian Care(1) World Vision(1)	NORAD CADEC DERUDE Christian Care World Vision Int	TCWS NCU UZ-Medical Sch Consulting firms
(Z)Low Cost Technology Options for Water Supply	Jul 2-12 1990	2wks	19	DDF(7) CADEC(12)	NORAD CADEC	TCWS, MEWRD DDF, Blair Res UZ-Geology Civil Eng
(R)Diploma in Water Supply & Sanitation	Aug-Nov 1990	4 mths	11	Zimbabwe(8) Zambia(1) Botswana(1) Mozambique(1)	NORAD Zambia-Norad Botswana Govt Oxfarm America	TCWS, DDF Blair Research UZ-Civil Eng Economics Medical Sch W & S Adviser- MOH
(Z)Implementation & Management of Water & Sanitation Projects	Jan 14-25 1991	2wks	39	MLGRUD(38) MCCD(1)	MDF	TCWS NCU
(Z)Installation & Maintenance of Handpumps	Mar 4-8 1991	1 wk	25	DDF(13), CADEC(6) MEWRD(4) Christian Care(2)	MDF CADEC Christian Care	TCWS Blair Research DDF

Course Title	Dates	Duration	No. of Trainees	Origin and number of Trainees	Origin of Funds	Origin of Lecturers
(R)Communication Skills for Community Motivation and Health Education-for trainers	Mar 18-22 1991	1 wk	17	Zimbabwe(15) Malawi(2)	TCWS Danida	TCWS UZ-Medical Sch
(Z)Water Supply Technology for Peri-Urban & Rural Areas-for trainers	May27 Jun 7 1991	2wks	9	DDF(2) MoH(4) MEWRD(3)	MDF	TCWS Blair Research UZ-Civil Eng
(Z)Planning of Integrated Rural Water & Sanitation Projects	Jul 1-12 1991	2wks	38	MLGRUD(38)	MDF	TCWS NCU
(R)Diploma in Water Supply & Sanitation	Aug- Nov 1991	4 mths	17	Zimbabwe(6) Zambia(1) Malawi(4) Botswana(2) Mozambique(1) Tanzania(2) Kenya(1)	NORAD UNDP SNV-Netherlands Save the Children Fund UNICEF John Wakeford Trust GTZ Botswana Govt CADEC	TCWS MEWRD Blair Research UZ-Medical Sch Civil Eng Rural & Urban Planning Dept of Public Health, STI
(Z)Planning of Integrated Water Supply & Sanitation Projects Training of Trainers	Mar 16-20 1992	1 wk	10	MLGRUD(4) MOH(3) DDF(2) MCCD(1)	Govt of Zimbabwe	TCWS
(Z)Participatory Evaluation of W & S Projects in Bulilimangwe	July 6-17 1992	2wks	21	District Council(8) MoH(4) DDF(3) MLGRUD(2) MEWRD(1) AGRITEX(1) CADEC(2)	National Action Committee	TCWS MoH NCU
(R)Water Quality Monitoring Laboratory Techniques	Sept 7-12 1992	1 wk	13	UZ-Civil Eng(2) MOH(6) MLAWD(1) GTZ(1) Chitungwiza TC(1) Tanzania(1) Lesotho(1)	Govt of Zimbabwe Chitungwiza TC GTZ WASA(Lesotho) RUDEP(Tanzania)	TCWS UZ-Civil Engineer Blair Research
(R)Community Management in Operation & Maintenance	Oct 12- Nov 20 1992	6wks	13	MoHCW(5) MNAEC(2) DDF(1) Chitungwiza TC(1) Zambia (4)	Govt of Zimbabwe Zambia-Norad Zambia-GTZ Zambia-Irish Aid Chitungwiza TC	TCWS Bradford Unvers Blair Research DDF

Course Title	Dates	Duration	No. of Trainees	Origin and number of Trainees	Origin of Funds	Origin of Lecturers
(R)Diploma in Water Supply & Sanitation	Feb 1- May 28 1993	4 mths	18	MLGRUD(3) MNAEC(2) DDF(3) Tanzania(4) Mozambique(2) Malawi(1) Zambia(1) Nigeria(1) Botswana(1)	Govt of Zimbabwe WHO WaterAid Malawi-SCF-UK Tanzania-Danida Tanzania-Norad Zambia-Norad	TCWS UZ-Civil Engineer UZ-RUP DDF MoHCW MLGRUD City Health Dept UNICEF
Training of Trainer & Participatory Methodologies W/Shop Zambia	Jul 26- Aug 6 1993	2wks	18	Zambia- Agriculture, Health, Water Affairs, Social Dev, Vet	Zambia-Norad	TCWS
(R)Sanitation Technologies in Small Communities	Sept 6-17 1993	2wks	9	MoHCW(6) Chitungwiza TC(1) Norton R/Council(1) Zambia(1)	Govt of Zimbabwe Chitungwiza TC Norton R/Council	TCWS Hre City Council
(Z)Water is Life Workshop	Sept 29-30 1993	2dys	25	Mission schools in Zimbabwe	Zimbabwe Council of Churches	TCWS
(R)Health & Hygiene Promotion Workshop	Oct 4-6 1993	3dys	26	MoHCW(9) Malawi(6) Zambia(3) Studio Ahead(2) Africare(2) UNICEF(1) Swaziland(1) SCF-UK(1) Kwekwe Municip(1)	UNICEF Africare MoHCW Studio Ahead Swaziland Govt Kwekwe Municipal SCF-UK	TCWS
(Z)Management of RWSSP by Rural District Councils	Nov 15 Nov 26 1993	2wks	25	Province National District	National Action Committee	TCWS
TOTAL			435			

(Z) = National course

(R) = Regional course



TNC

**TRAINING NETWORK CENTRE
FOR WATER AND WASTES MANAGEMENT**

STATUS REPORT

JAN 1993-DEC 1993

PREPARED FOR
**ITN MANAGERS' MEETING
KENYA
NOV. 29-30, 1993**

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STATUS REPORT OF THE TNC

1. INTRODUCTION

1.1 Project Background

Project No:	GHA/87/016
Project Title:	Training Network Centre as a component of the Low-Cost Human Wastes Management -Pilot Project for Kumasi
Executing Agency:	International Bank for Reconstruction and Development
Govt. Exec. Agency:	University of Science and Technology, Kumasi
Date of Approval:	12/12/1989
Duration of UNDP Sponsorship:	Originally 3 years (March 1989-March 1992) Extended by two years (March 1992 -March 1994)

2 OVERVIEW OF ACTIVITIES IN 1993

The activities of the Centre in 1993 were targeted at meeting the objectives of the Centres Action Plan which had been developed in consultation with the RWSG (WA). These objectives were:

- i. change the Centre status to achieve greater autonomy and financial sustainability.
- ii. develop and implement a business plan for the Centre.
- iii. strengthen RWSS Project support.
- iv. provide training and information support for on-going sector projects.
- v. improve staff capacity to undertake HRD and institutional development activities.

3. STATUS OF THE CENTRE

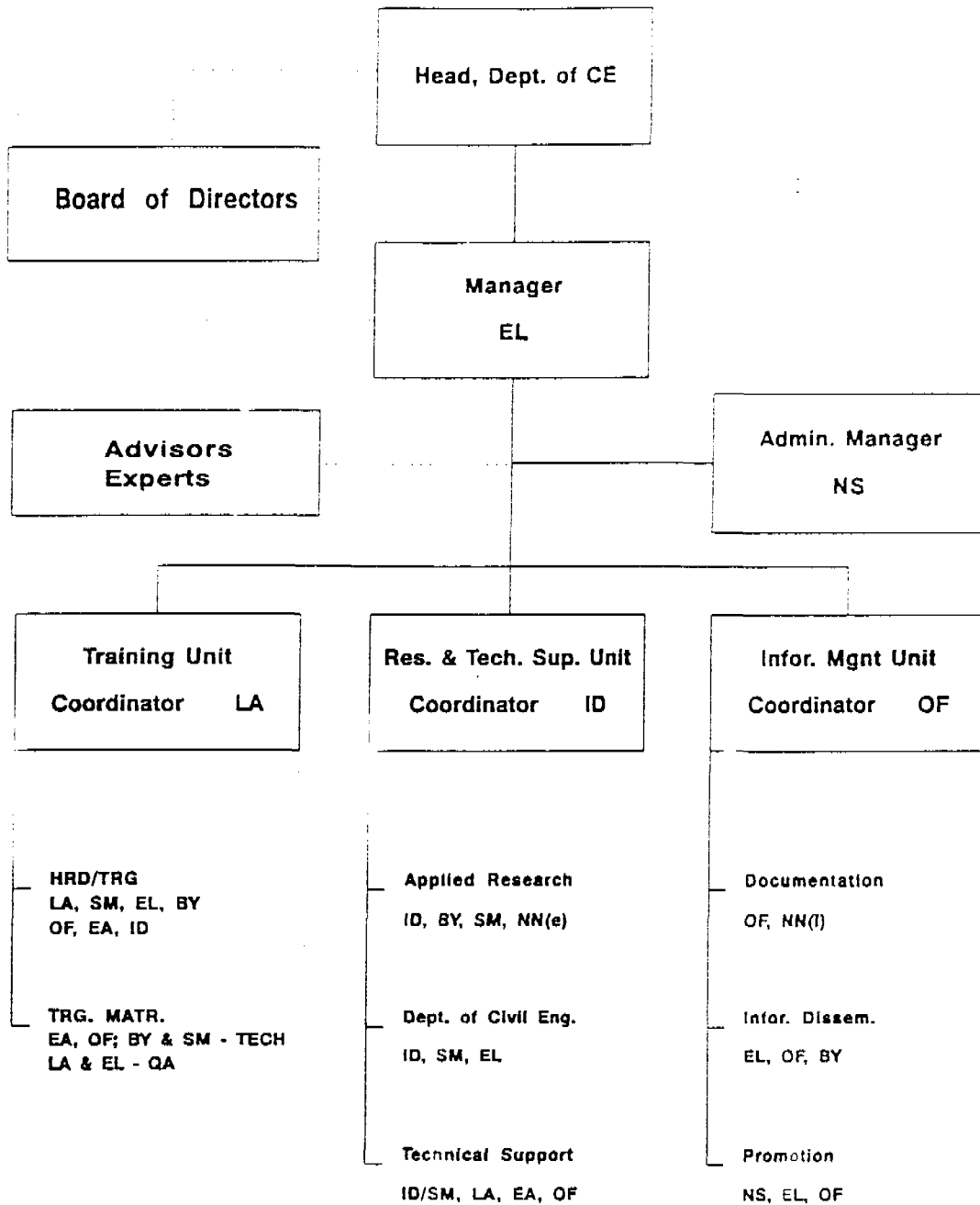
3.1 TNC Management

Following the recommendation of an evaluation mission in Feb 1992 that the post of Manager for the TNC should rotate on a three year term of office, and the subsequent resignation of Dr James Monney as Manager, Mr Eugene Larbi, a core staff member and the Head of the Operational Unit within the Centre was appointed Acting Manager with effect from April 1, 1993.

3.2 New Organisational Structure

A new organisational chart for TNC which was formulated during an in-house workshop has been approved by the Centre Management Board and is currently operational. Under the new structure management and administrative framework largely remain unchanged. At the operational level, the Centre operates through three complementary Units: i) Training, (ii) Technical Support and Applied Research and (iii) Information Management. Details of the new organisational structure as well as the detailed description of the three units are attached as shown in Figure 1.

Figure 1: Proposed Organisational Structure



3.3 Staffing and Staff Development

The Centre is now fully staffed with a multidisciplinary team of national professionals including three new staff: a Women-in-Development (WID) Expert, a Graphic Artist and a Business Manger whose recruitment followed a recommendation from the Terminal Evaluation Mission of the Project which was fielded in February 1992. In addition a new Sanitary Engineer has been recruited following the resignation of Dr. James Monney as Manager and the subsequent appointment of Mr. Eugene Larbi as the Acting Manager. The core staff now comprises 8 people made up of 3 sanitary engineers, a development planner, a communications expert, a sociologist, a graphic artist and an administrator.

As part of a General Support Programme funded by Danida, a part-time expatriate Training Advisor is currently on attachment and will continue to be with the Centre until October 1995. Her role will basically be to help strengthen current staff capabilities and provide technical support in training activities.

Staff training continues to form a core activity with the recruitment of new staff. In the past year several in-house workshops were held to improve staff capabilities in TOT, Training Material Preparation and Consultancy Management. On the job coaching of new staff and local tours constituted main activities in the training of new staff. Detailed job descriptions have been developed for all staff stressing the multidisciplinary background of staff with the aim of ensuring complementarity.

3.4 Funding of TNC Activities

With its General Support Package which involved supply of equipment, expatriate technical support for the Centre, scholarships for training of Centre staff, and sponsorship of a staff member, Danida became the main external donor supporting TNC's activities. UNDP also continued to provide financial support for the operations of the Centre. Overall however, the Government of Ghana was the biggest source of Centre funding.

Through HRD consultancy support to projects and institutions, the TNC continued to gradually build its financial resource base. Earnings from consultancies have enabled purchase of additional equipment, financing of staff training and recruitment of a core staff member. Earnings from consultancies will be important in ensuring smooth operation and sustainability of Centre Activities, especially in the period immediately following the expiry of UNDP support in March 1994.

3.5 Development of a Business Plan for TNC

During the year, a strategic options and business plan for the TNC was completed and reviewed by RWSG and ITN in Washington. This document provides a future vision, objectives and scope of activities, marketing plans, organisational and management strategies and financing options. TNC staff have since held several in-house sessions in an effort to detail out the proposal and make it more applicable to the Centre's needs. Once finalised, this document will provide a framework for planning and implementation of activities within the Centre.

Alongside this activity, discussions were held between authorities of the host University, the TNC Management Board and the RWSG on the possibility of giving the TNC a semi-autonomous management status. Though the final management status of the TNC is yet to be clearly defined, the effort has already yielded some long term gains in granting the Centre some level of flexibility above the regulations of the institution.

4. OVERVIEW OF ACTIVITIES AND ACCOMPLISHMENTS

During the period under review, the Centre consolidated its position as one of the key resource centres and outreach institutions within the Water and Sanitation Sector. Linkages with sector agencies and projects were further strengthened during the year and good progress was made with the preparation of curricula and training materials for specific target groups within the Sector.

4.1 Development of Curricula, Methods, Training Materials and Training

During the year, activities continued to focus on developing a systematic approach to training in the water and sanitation sector and supporting training institutions and field based projects to strengthen their training capacity. Through its involvement in a Danida-supported Project in the Volta Region and UNDP supported Projects in the Eastern and Volta Regions progress was made in the areas of training needs assessment, curriculum development, training materials development, trainer training and monitoring and evaluation of training effectiveness. A networking approach and the TNC's linkages with various sector projects and organisations enabled major strides in promoting the exchange of experiences between projects, institutions and regions.

The effort to develop common curricula and training materials for the new field of community water supply and sanitation continued during the year alongside the TNC's involvement in two field based projects which have been designed to serve as demonstration projects for a proposed Community Water and Sanitation Sector Strategy. Draft curricula, training materials and implementation manuals/field kit have been prepared for:

- project extension officers
- zonal water and sanitation management committees
- community groups including women's groups
- private artisans
- handpump mechanics and community-based handpump caretakers

This effort to develop curricula, methods and materials is expected to receive a major boost with the award of a new contract to the TNC's for the provision of training support to the new Community Water and Sanitation Project, which is supposed to serve as a full scale demonstration of the new Sector Strategy for Community Water and Sanitation.

During the year, the Centre's scope of work within the Department of Civil Engineering substantially increased with delivery of lectures to civil engineering students in low-cost technological options by two core staff members.

A summary of training workshops organised in the year is attached as follows:

TABLE 1 SUMMARY OF TRAINING WORKSHOPS ORGANISED IN 1993

Date	Target Group	No. of Participants	Workshop Duration
EASTERN REGION - UNDP/GWSC WATER AND SANITATION PROJECT			
March - April, 1993	District Mgt. Committee and Extension Officers of the South Birim District	11	4 days
April, 1993	Female WATSAN Committee Members in Birim North District	30	2 days
June, 1993	Water and Sanitation (WATSAN) Committee Members in the Birim South District	160	3 days
August, 1993	Latrine Construction Artisans in the Birim South District	40	12 days
August, 1993	Area Mechanics in the Birim South and North Districts	10	12 days
August, 1993	Training Workshop for Community Handpump Caretaker	66	3 days
DANIDA/GWSC VOLTA RURAL WATER AND SANITATION PROJECT			
November - December 1992	Extension Supervisors	10	25 days
January, 1993	Project field Assistants	29	15 days
May, 1993	Extension Supervisors and Field Assistants	20	1 day
September, 1993	Environmental Health Assistants	19	10 days
UNICEF PROJECT IN THE EASTERN REGION			
November, 1993	District Management Committee	26	4 days

4.2 Documentation and Information Dissemination

TNC Documentation Centre

The TNC's documentation Centre continued to expand its stock of literature and resource materials. The library now has an impressive stock of training materials and literature produced in the country as a result of an HRD survey that was undertaken earlier in the year. The year saw a sharp rise in the number of sector personnel and University community members who use the library. Effort was also devoted to reorganising the unit to ensure that a proper cataloguing and classification is in place.

Database for Sector Resource Persons

An important output of a HRD Survey conducted in January has been the initiation of a computerised database for resource persons within the Water and Sanitation Sector in Ghana. This effort is in pursuance with the training strategy for the new Rural Water and Sanitation Sector Strategy which calls for the identification and orientation of a pool of training resource persons who could be called upon to participate in specific training events or methodology and materials development activities.

Documentation Activities

The Centre was involved in preparation of a case study on the sanitation component of the UNDP/GWSC Water and Sanitation Management Project in the Volta Region, which is considered the most successful rural sanitation ever undertaken in the country. The lessons learnt in the replication of the Mozambique slab type latrine will be disseminated to other Projects in the country.

Information Dissemination

The TNC newsletter continues to be an important mouthpiece for the dissemination of Sector news. Two issues have so far been released this year and a third is expected before the end of the year. Currently with a circulation of 1000, the newsletter has recently been redesigned to give it a truly national perspective. The TNC documentation Centre gained increased recognition as a unit for dissemination of training materials, implementation manuals and technical literature to students and sector agency staff. The number of NGOs who came to the TNC for information support also increased considerably. In most of the training courses organised for sector professionals and students, the training modules "low cost water supply and sanitation" which were provided under the UNDP/RWSG Programme, extensively applied.

4.3 Advisory Services and Institutional Development

i. The Centre played a crucial role in the development of a Strategic Investment Plan (SIP) for Community Water Supply and Sanitation. The Centre undertook a countrywide survey of HRD activities in the Water and Sanitation Sector and went on to prepare an HRD paper for the Sector Strategy. Centre staff were actively involved in all Consultations that were held in the process of evolving a national strategy paper for the sector.

ii. As part of a preparations towards the implementation of the Community Water Supply and Sanitation Project, the TNC undertook regional surveys to assess the potential of existing NGOs to participate in the Community Water and Sanitation Project.

ii. The TNC Continues to play a leading role in capacity building for the urban waste management sector. The Centre initiated and later coordinated a situational analysis of waste management situation in eleven secondary cities. The Centre has also been directly involved in training of waste management personnel from the Kumasi Metropolitan Assembly and the Tamale Municipal Assembly.

In addition the TNC was involved in the following activities/workshop in an advisory/supportive role:

Regional Start-Up Workshop for the Volta Water and Sanitation Project: TNC played a lead role in the planning and organization of this workshop and also facilitated it.

Regional Start-up Workshop for the Community Water and Sanitation Project: TNC played a major advisory role in the planning and organization of this workshop and also facilitated it.

UNICEF Supported Water and Sanitation Projects Mid-term Review: A TNC member was part of the

team for this two-week exercise.

Development of Promotional Material for the Volta Water and Sanitation Project. TNC produced Project Information Booklets and other promotional material for this Project.

4.4 Applied Research

Despite the increased scope of activity in this area, applied research continued to receive relatively minor attention in TNC during the past year. However modest achievements were attained through programmes conducted in conjunction with the Department of Civil Engineering within UST, the host institution and the RWSG (WA). Research focused on the investigations that will lead to the availability of more reliable planning and design data for the Ghanaian situation. Specific areas of research included:

- i. Investigation of the performance of public latrines
- ii. Characterization of septic tank effluent.
- iii. Investigation of private sector performance in wastes management
- iv. Establishment of links with IRCWD to investigate the performance of nightsoil ponds in Ghana.

5. **LOOKING AHEAD**

1993 has seen much progress in the status and capacity of the Centre to meet the HRD and institutional development needs of the Water and Sanitation Sector. The Centre has further consolidated its position as a leading sector support institution. It now has a full complement of well trained and motivated staff who can deliver the expected outputs.

In March 1994, UNDP sponsorship for the Centre will end thus making the issue of how to achieve greater autonomy and financial sustainability even more crucial. In the short term, the Centre will continue to require Government and donor support to maintain current levels of activities.

In the coming year, Centre activities will mainly focus on Training of Trainers, development of training materials, methodologies and resource materials to support the National Community Water and Sanitation programme. These expansion in activities will see the TNC working in six out of the ten regions in the country. In the same period, urban management activities will be stepped up with the TNC playing a coordinating lead role in training and training material development in a GTZ-sponsored Urban Management Programme.



TNC

**TRAINING NETWORK CENTRE
FOR WATER AND WASTES MANAGEMENT**

LINKAGES WITH OTHER NETWORK CENTRES AND CONSTITUENTS

JAN 1993-DEC 1993

PREPARED FOR
**ITN MANAGERS' MEETING
KENYA
NOV. 29-30, 1993**

COLLABORATION BETWEEN TNC AND POLICY MAKERS, TRAINING INSTITUTIONS COMMUNITIES AND NGOS

1. Collaboration with National Training Institutions

In Ghana there exist a wide range of formal educational institutions and specialised Centres which offer various courses related to the water and sanitation sector. Collectively, these institutions offer degrees in sanitary engineering and social science, diplomas in community development, accounting, social administration, public health and hydrogeology; and certificates for national craftsmen and drillers. Together, these institutions have the capacity to provide the training needs for the water and sanitation sector. However, courses offered by most sector training institutions are not tailored to the needs of the rural water and sanitation sector.

All sector institutions have benefitted from TNCs information dissemination activities and are all on the mailing list of the TNC newsletter. As an outcome of an HRD survey that was conducted in early 1993, specific activities of all institutions have been documented and key resource persons have been included in a database of resource persons that the TNC has started.

However, due to the constraint with general approach that has been identified, collaboration has been more with specialist resource persons within these institutions rather than with these institutions as a whole. Specific staff within institutions like the GIMPA, the Universities and some of the sector agency training institutions are often recruited as external consultants in the Centre's training and material development activities.

An HRD strategy report produced in January 1993, recommended that in the long term, curricula in the some of these institutions, like the schools of hygiene should be gradually modified to reflect the needs of rural and low income communities by introduction of new elements like community management, participatory planning, low-cost technologies and TOT skills. Already Danida has made funds available for the TNC to coordinate such an activity for the Schools of hygiene.

Despite this lack of collaboration with training institutions, some training of trainers activities have been organised by TNC for the 3 main Sector Agencies:- the Ghana Water and Sewerage Corporation (GWSC), the Department of Community Development (DCD) and the Environmental Health Division of the Ministry of Health. A brief description of the these training activities given as follows:

Department of Community Development (DCD)

The DCD primarily provides technical advice and assistance to minor self-help construction projects in rural communities, often through

support to projects by other government agencies and NGOs. The department has staff in all 10 regions of the country and is the only government agency with staff below the district level. TNC in August 1992 organised a workshop for heads of the Departments regional offices and its training institutions. Participants in this workshop were presented with adequate resource kits to enable them provide orientation in participatory skills in their jobs. Since that period however, lack of funding has prevented any further collaboration. An evaluation of the effectiveness of this training programme and a follow-up workshop is planned for early 1994.

Environmental Health Division (EHD) of the Ministry of Health

The EHD is the Unit within the Ministry of health with the responsibility for assisting local authorities with organisation and operation of refuse and nightsoil collection and disposal. Its health inspectors receive their formal education at the 3 schools of hygiene under the Ministry before being seconded to District Authorities. Efforts over the last two years at getting trainers from the schools of hygiene to undergo courses in TOT and participatory techniques have so far not materialised due to the inability of the MOH to raise matching funds. The Department of Civil Engineering at the UST within which the TNC is located has a course for health inspectors leading to a Diploma in Environmental Health Technology. This course has a curriculum which aims at establishing among course participants, a shift from enforcement to the promotion of better sanitation practices. In the last 2 years, TNC has actively participated in the running of this course through lecturing by its core staff and by making its Resource Centre available to course participants.

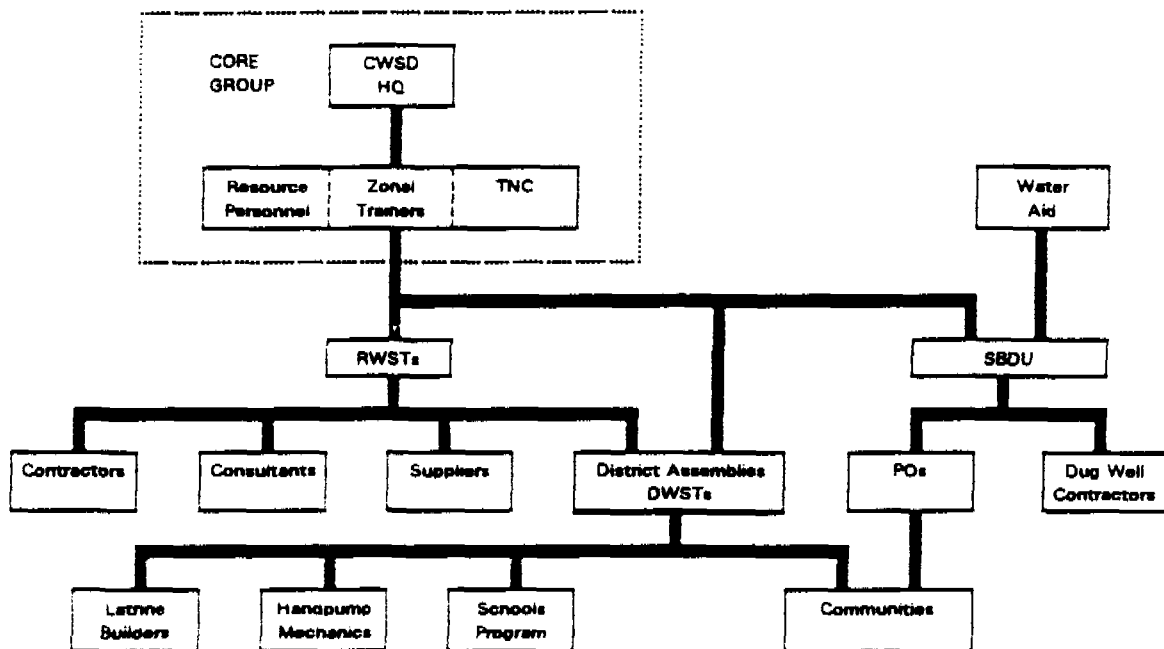
The Ghana Water and Sewerage Corporation (GWSC)

GWSC, which is within the Ministry for Works and Housing is the lead institution in the water and sewerage sector, responsible for both rural and urban water supply and for piped sewerage and sewerage disposal. Being the lead agency and the Governments implementing agency for most donor sponsored projects has contributed naturally to a high level of collaboration with the TNC. All project related training run by the TNC is first discussed with national and regional staff of the corporation before implementation. The GWSC has two training schools, but these have so far not offered courses that are relevant to the RWSS Sector and collaboration with TNC has developed beyond conceptual level. However Unicef has funded TNC training for regional RWSS engineers in construction of VIP latrines as part of support to the implementation of a Unicef funded RWSS project throughout the country. In addition several GWSC staff seconded to various Projects have been trained as extension officers.

In the coming year, collaboration between TNC and GWSC will strengthen with the implementation of the training component of the

Community Water and Sanitation Project which will mostly be handled by the TNC with CWSD doing overall coordination. The training strategy envisages a small core Unit of Trainers within the GWSC at the regional and national level who will be given basic skills training and who will in turn, with technical support from the TNC provide training for District Water and Sanitation Teams (DWSTs) who will be employees of the District Authority. These DWSTs will in turn be responsible for training of artisans, handpump technicians and for promotion of school sanitation. A Small Business Development Group made up of experienced NGOs private Consultants will be coordinated by another NGO-Wateraid to handle training of District level extension officers and hand-dug well contractors. The training support structure is illustrated below.

Figure 1 Training Support Structure



2. Collaboration with Sector Policy Makers

The Ministry for works and housing has primary responsibility for overseeing the activities of the GWSC, which is the lead agency in the water and sewerage sector, responsible for both urban and rural water supply and for piped sewerage and sewerage disposal. On site sanitation facilities are the responsibility of the District and Municipal Authorities under the Ministry of local government, who obtain technical assistance from the Ministry of Health. The GWSC coordinates the activities of an Inter Agency Coordinating Committee (IACC) which was specifically set up to monitor the formulation of a Rural water supply and sanitation sector policy and Action Plan. The IACC comprise members from Government Sector Agencies, ESAs and NGOs active in the sector. Apart from reviewing overall policy, the IACC also coordinates and promotes convergence between activities of sector agencies and promote on a continuous basis, appropriate changes in the policies of sector activities. The TNC is represented on the IACC by the Manager and has played an active role in all deliberations that have led to the new Sector Strategy. An HRD study conducted by the TNC formed the basis for the preparation of a training component of the new sector strategy.

Under the Sector strategy, District Water and Sanitation Management Committees formed within District Assemblies will be responsible for "setting the rules" regarding implementation management at the District level. TNC has through its Project specific activities conducted orientation workshops for DMCs in 8 Districts.

The level of collaboration with policy makers in the urban sanitation sector has also continued to grow. A situation analysis of 11 secondary was conducted in close cooperation with national and regional staff within the Ministry of Local Government who have overall responsibility for urban sanitation. Decision on priority areas for the survey was done by the Ministry. Training workshops on urban sanitation management have also been jointly planned and conducted for municipal authority officials in two major cities. A workshop on lessons learnt from the Kumasi Sanitation Project was planned and conducted with the collaboration of the Ministry. This workshop brought together, policy makers, donors and municipal and District Authority representatives from all regions in the Country.

3. Collaboration with Communities

The overall objective of the RWSS Programme in Ghana is to ensure that in the long term, communities will be fully responsible for generating and maintaining their own water and sanitation facilities either through their own effort or by obtaining the services of specialised petty contactors in the private sector. Thus training of community groups and private contactors as well as the

empowerment of District Authorities who can support community efforts are all crucial needs.

Though its mandate does not require the TNC to be directly involved in training of communities, the Centre's involvement in Project specific training has provided the opportunities to directly conduct training workshops for the following community based target groups:

- water and sanitation committees
- Latrine and hand-dug well construction artisans
- handpump caretakers
- area handpump mechanics
- womens groups and organisations.

The experiences gained by the Centre through its involvement in these workshops are already yielding some long-term benefits as the Centre shifts its focus from Project specific training to TOTs, training material development, curriculum development, monitoring and evaluation.

Other areas which have provided opportunities for interaction have included:

- field testing of training materials
- field work and individual assignments during training of extension workers
- provision of resources during training of artisans and contractors
- monitoring and evaluation of training

4. Collaboration with NGOs

Collaboration with NGOs in the Water and Sanitation Sector has not been very extensive despite the need for training support that most of these organisations have been identified with. So far, TNC support to NGOs have mostly been in response to specific requests received. Collaboration has been in three main areas: Training and training materials development, provision of technical/advisory support and information exchange:

WaterAid, a charitable organisation associated with the water and sanitation sector is one of the largest NGOs in the Sector and supports a number of rural water projects in Ghana, most of which are implemented by local NGOs. WaterAid has been the largest receiver of TNC support in the training of its field Managers and trainers and in training materials preparation. Staff of this NGO have also been involved in training Programmes organised by the TNC as resource persons. Under the implementation of the newly started Community Water and Sanitation Project, WaterAid will play the lead role in the formation of a Small Business Development Unit (SBDUs), comprising a group of sector NGOs and consultants who will provide training and support services to field extension units (partner

organisations) and hand-dug well contractors. TNC will collaborate with WaterAid in the planning and preparation of SBDU training programmes and will also provide basic training and orientation for all SBDUs.

A high level of collaboration has also existed among between TNC and the Village water Reservoirs, a Dutch supported NGO who focus on the construction of earth dams in areas of the Northern Region with low groundwater potential. TNC has been involved in evaluating the Projects effectiveness and have involved community management staff on the Project as external resource persons in TNC organised workshops.

Through the dissemination of technical information, the TNC has helped ensure convergence among NGOs regarding the choice of technology and the adoption of standardised designs. In the coming year, TNC's ties with NGOs is expected to improve through increased ties with the newly the established SBDU (see Fig 1). The Centre will aim at promoting information exchange and dialogue through workshops and other NGO focused meetings. In particular, a country level workshop to be sponsored by the TNC will target all Project related trainers to equip them with the basic TOT and participatory skills.

5. Collaboration with the RWSG

The RWSG (WA) office in Accra has since the inception of the TNC acted as the executing agency for the UNDP funders. The level of collaboration has been very high:

- RWSG is represented on the TNC Management Board and has played a major role in the formulation of policies and management guidelines.
- RWSG has played a focal role in the recruitment of staff and staff training. The office played a key role in arranging training tours (both external and in-country) and in-house training sessions by external consultants in areas such as participatory skills and materials development, all of which have proved essential in the activities of the Centre.
- RWSG has played an advisory role in the management of consultancies executed by the Centre and in areas of procurement, logistics and financial management.
- Collaboration has also been in the area of applied research and information exchange. The RWSG has initiated research programmes and have also provided funding for research programmes conducted by the TNC.

■ TNC has collaborated with RWSG in planning and conduct of several sector studies including an HRD survey, a situation analysis of urban sanitation in 11 secondary cities and partner organisations. Joint workshops which has been organised with the support of RWSG has included :

- The Kumasi Sanitation Project (Lessons Learnt workshop)
- Start-up Workshop for the Community Water and Sanitation Project
- Orientation workshops for personnel on the Kumasi Sanitation Project
- Workshop on participatory skills for TNC and Sector personnel.

■ RWSG has promoted close collaboration between the TNC and two sector projects currently being executed in Kumasi; the UNDP sponsored Kumasi Sanitation Project and the British ODA sponsored Health Education project (HEU). The KSP is a demonstration Project and is unique in its strategic planning approach and its diverse components which includes institutional development, private sector participation, on-site sanitation involving communal and household facilities and a low-cost sewerage scheme; as well as a comprehensive health education programme. The HEU was initiated as a complementary effort to support a solid waste management programme. The Unit has developed curricula, methods and a wide range of training materials for public health workers, schools and communities. Together the TNC, HEU and the KSP constitute a conducive setting for training of urban sanitation personnel and have in the past 3 years hosted several sector staff including personnel from outside Ghana.

In March 1994, the RWSG office in Accra which has directly acted as the executing agency for the Centre since its inception will be closed down as UNDP funding for the Project ceases at the end of project. This poses quite a setback to the TNCs effort at enhancing collaboration with both in-country and external institutions.

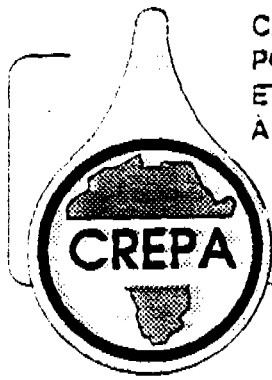
6. Collaboration with other External Institutions

i. ITN Centres Collaboration with sister ITN institutions in Africa and the ITN Coordination Unit in Washington has not been as much as should be expected. TNC's serious problem with external communication has been one of the major reasons for this. Communication is expected to in 1994, and the TNC looks forward to an improvement in existing levels of communication.

ii. IRC IRC support in information exchange has been very good since the establishment of the Centre. In addition to the standard ITN package of literature, the TNC has regularly received new IRC publications and other relevant literature. It is obvious however, that compared to other ITN Centres, TNCs association could

improve and be expanded to include areas as staff training and technical support.

iii. IRCWD Effort at renewing ties with the IRCWD was made in September 1993 when two personnel from the IRCWD paid a visit to the TNC to discuss possible areas of future cooperation in applied research. The TNC has since received a wide range of publications from the Swiss group.



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À FAIBLE COUT**

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**AN EXAMPLE OF COLLABORATION
BETWEEN CREPA CENTRE
AND IT'S COUNTRY UNITS
AND GRASSROOTS ORGANISATIONS**

1 - CONTEXT AND ORIGIN OF THE PROJECT

Urban growth in Africa poses the double problem of its spontaneity and its rapidity. The annual rate of growth in certain large African cities is often greater than 7%. This pace of development creates enormous needs for investment in many domains (drinking water, sanitation, transportation, energy, etc...). The management of wastes, both solid and liquid remains an often neglected aspect in urban development plans.

The rate of waste production per inhabitant has not stopped increasing, a fact which poses enormous environmental and public health problems for municipal operations and disadvantaged populations.

Efforts are being undertaken in a number of countries, but the management practices used up to now, and of which studies have been done in many cases for the office of foreign studies, use systems of the classical type developed in industrialized countries. These systems, based on purely technical considerations, do not take into account the financial and socio-cultural dimensions of the beneficiary population. The structures of public or private management encounter enormous operational problems. The search for new approaches and strategies based on local capacities, existing local financial means and local natural resources is essential.

CREPA and IAGU decided to undertake together a research action with the general goal of proposing, through micro-projects, original management practices, technically adapted and socially accepted by taking into account community participation.

Two micro-projects for the collection and disposal of wastes were carried out in Ouagadougou and Cotonou in suburban zones. This publication essentially describes the Ouagadougou micro-project.

2 - PROJECT OBJECTIVE

Following the internal assessment of CREPA and the external evaluation, two major ideas govern the whole strategy of CREPA : The decentralisation of CREPA activities to the countries and a bottom-up research action, the results of which must take into account the local resources and capacities. The favoured partners in this approach are the grassroots associations, NGOs, private offices and economic interest groups.

The principle objectives of the project are :

- to evaluate the innovative strategies used during the project
- to create jobs in the project zones from the fees received from beneficiaries satisfied with the service rendered

- within the scope of the research action, to gather all socio-economic, cultural and technological details to be distributed to developing countries beginning waste resource recovery activities

- to reinforce local human capacities in the management and valorization of suburban zone wastes.

3 - METHODOLOGY

The preparation of the micro-project took place in two phases :

- passive feasibility study phase (field - office - field - passive conclusion)
- observation and participative research
- analysis and local participative planning with the population
- opening and continuing evaluation

4 - PASSIVE FEASIBILITY STUDY PHASE

4.1. Methodology

- Starting with the actual solid waste management practice in the city of Ouagadougou, an analysis of the constraints linked to solid waste management permitted a diagnosis of the potential sites for the pilot project to proceed.

- After evaluation of the resources and the material, human and financial needs relative to the management of the pilot projects, a search for complementary financing for the start of the project was undertaken.

4.2. Feasibility study

The feasibility study which took place in the period of July to September 1991 had the following parts :

- institutional aspects
- formal sector
- informal sector
- sale of compost
- waste characterization
- choice of the project zone with the behaviour/ attitude / practice study

4.2.1 Limits of the study

The city of Ouagadougou has 700 000 inhabitants among its 30 sectors, gathered into 5 towns. The city covered all sectors of the city of Ouagadougou.

4.2.2 Institutional analysis

There are a multitude of institutions involved with the management of solid waste in Burkina. At the level of administrative services, we could cite the national office of maintenance services, cleaning and improvement (ONASENE) which is active in the field. ONASENE is responsible for the collection of wastes and other diverse tasks of maintenance of public buildings and the management of nurseries. It operates predominantly in the cities such as Ouagadougou and Bobo-dioulasso. At the level of private services, there are a dozen operations involved with solid waste. These enterprises act with the assent of ONASENE

It can be seen that in the management of solid waste, there exists a situation of legal flux and poor organisation. In practice, each contributor acts according to his own interests and no coordination system exists.

4.2.3 Analysis of the formal sector

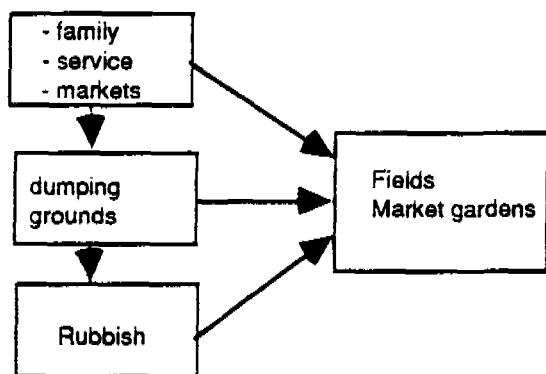
This sector includes all public and private actors, legally recognized as involved in the disposal of waste. The solid waste market is still very weak in the sense that it only covers a part of the city. The collection activities are at an embryonic stage. This leads to many gaps and difficulties in the coverage of the city.

4.2.4 Informal sector

The informal sector is composed of all gatherers who practice the collection and disposal of solid waste.

This category of person, having an average age of 20 years, is essentially made up of muslims and christians. The dominant ethnic group is the Mossi, often illiterate. The gatherers operate essentially in the concessions and markets .

The circuit is constituted of :



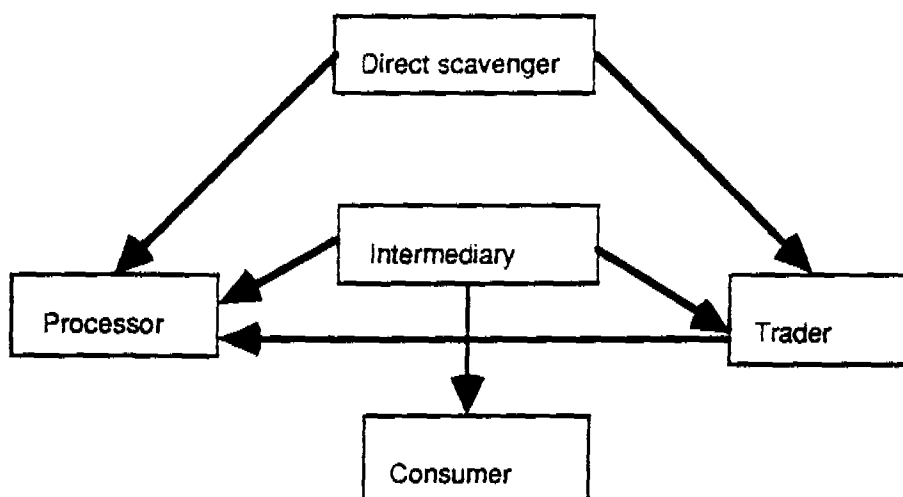
Legend ——— circuit of informal gatherers
 ———> circuit reserved for the formal sector

The method of collection is often cart and donkey with shovels and materials. The scavengers are people devoted to an activity directly or indirectly linked to recuperation. We distinguish :

- . The direct scavengers starting at unofficial dumping grounds, family trash cans, hotels and restrants
- . the indirect scavengers who buy from direct scavengers
- . the traders and resellers who buy scavenged objects, transformed or not, for resale to consumers.

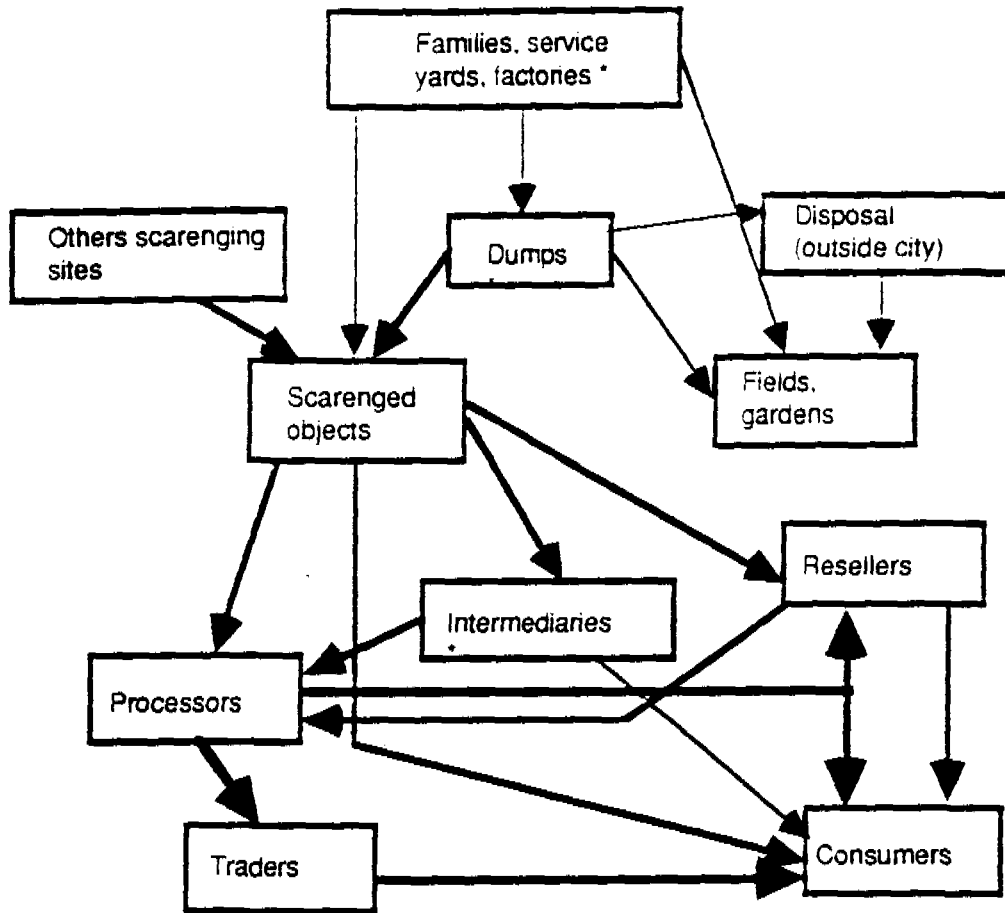
The processing artisans who produce useful objects starting with scavenged sell them either to traders or directly to consumers. 90% of the scavengers work for themselves and 10% for a third person.

The network of scavenged objects :



See also the flowchart on the next page which illustrates the anarchy which exists in the solid waste collection and disposal sector in Ouagadougou.

General Flowchart



Légende

- 1* Auto-utilisation de certains objets récupérés
- 2 Circuit des objets fabriqués
- 3 Circuit du récupérateur
- 4 Circuit du ramasseur
- 5 Circuit de la division économique

Source : Enquête CREPA : Août - septembre 1991

4.2.5. Sale of compost

The study was done essentially by the users and sellers of compost. Market farmers and horticulturalists are essentially the users of the compost (animal dung and chemical fertilizers). Children are the principal seilers of compost.

The sale of compost is very limited. The users are interested in the compost however if it is put at their disposition at a good quality and at a price which takes their purchasing power into account.

4.2.6. Characterisation of the waste

Given the heterogeneity of solide waste and its variability in space and time, the city was cut into 4 zones :

- . industrial zone
- . high standing zone (> 150 000 fcfa household income)
- . medium standing zone (50 000 - 150 000 fcfa)
- . low standing zone (< 50 000 fcfa)

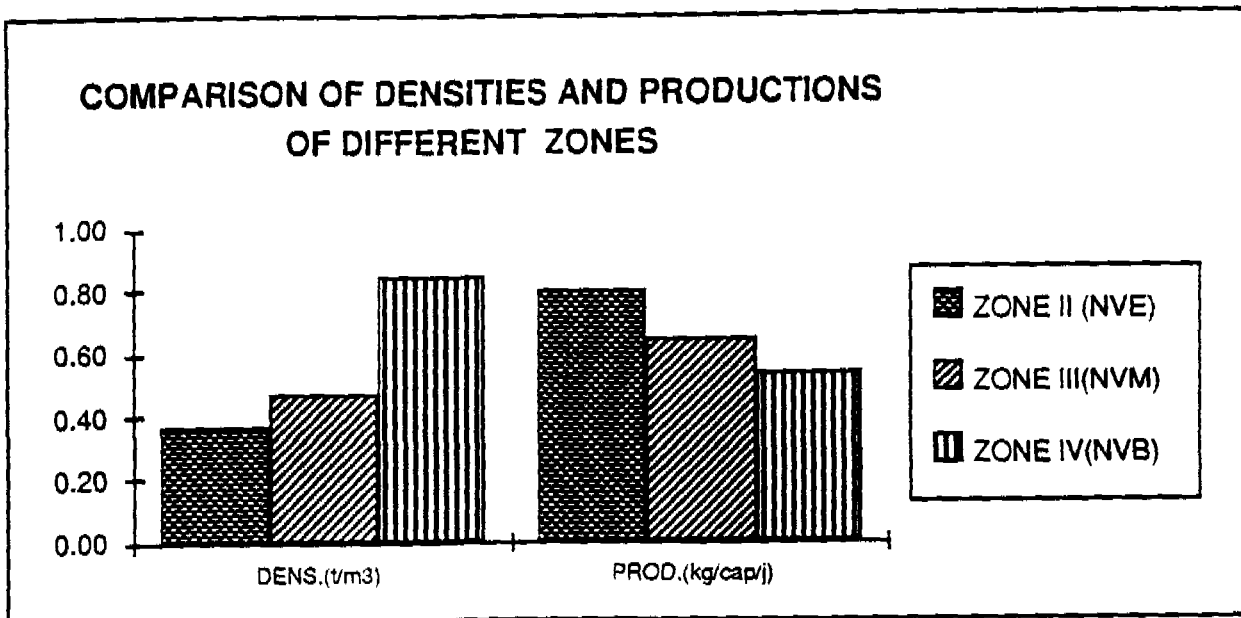
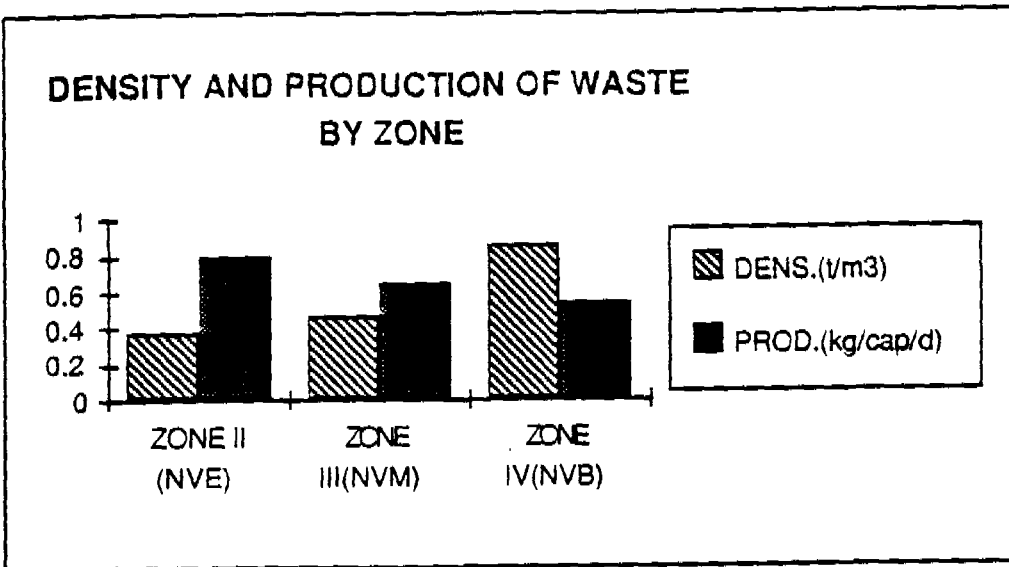
Other criteria were chosen to define the level of standing such as for exemple zone provisions of water, electricity, refuse collection.

Four large classes were used to stratify the solid waste (SW)

- Class 1 putriscible material (leaves, peelings, food waste)
- class 2 combustible material (paper, textile, cardboard, plastics)
- class 3 inert material (metals, glass, cans)
- class 4 fine material (passing trough a 20 mm screen)

Table n° 1: Density and Production

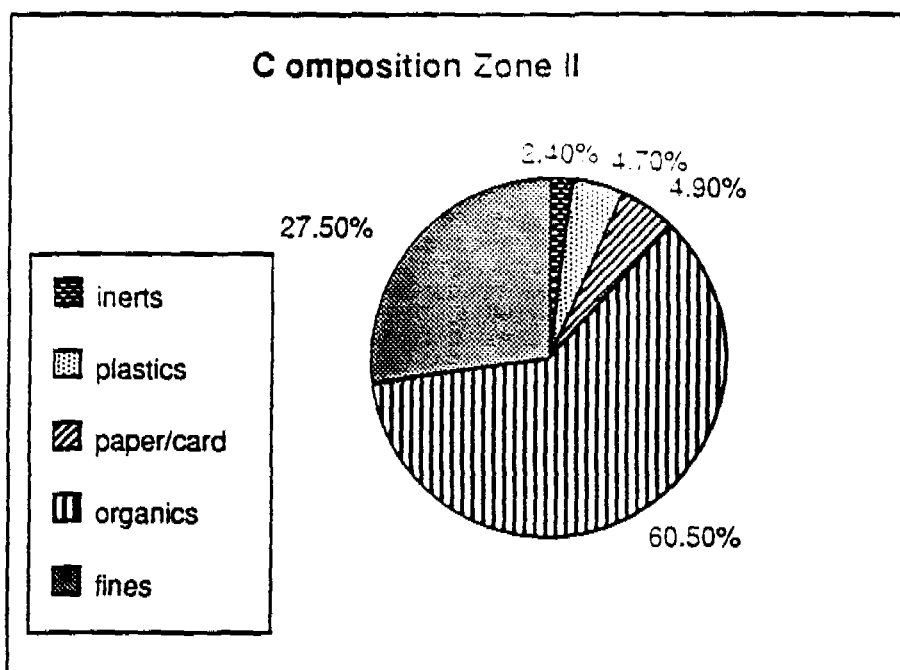
Zones	Average values	
	density (t/m ³)	production (kg/cap/d)
II: high standing	0.37	0.80
III: medium standing	0.47	0.65
IV: low standing	0.85	0.54



Zone II

Table n° 2: Composition

Classes	Selected values of different operations (in %)							Average
inerts	3.0	2.9	1.5	1.7	2.2	2.4	2.2	2.4
plastics	6.8	7.7	3.1	2.6	3.3	5.1	3.4	4.7
paper card	3.0	10.3	2.8	4.3	4.3	6.5	2.2	4.9
organics	57.0	33.7	65.6	79.3	69.9	57.7	60.7	60.5
fine	30.1	45.4	27.0	12.1	19.4	27.0	31.5	27.5

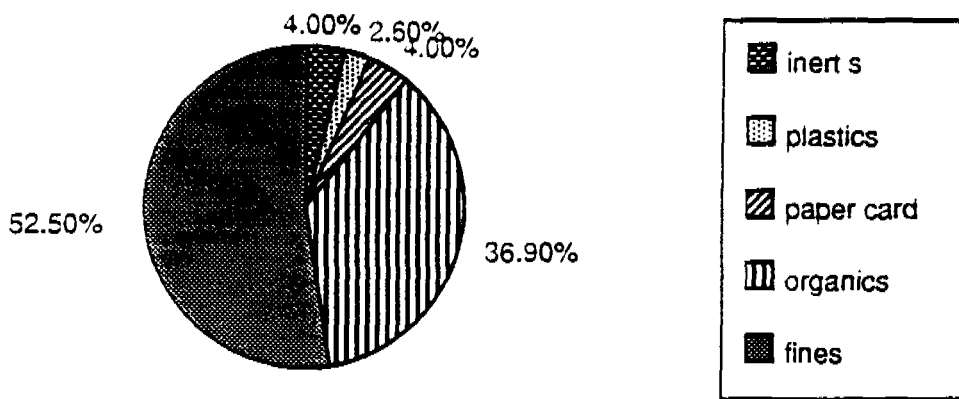


Zone III

Tableau 3 : Composition

Classes	Selected values of different operations (in %)							Average
inerts	1.7	3.1	3.7	1.7	4.0	7.9	5.8	4.0
plastics	0.9	2.1	3.7	1.4	2.0	5.0	3.0	2.6
paper card	2.2	2.1	3.7	2.3	1.3	7.9	8.6	4.0
organics	50.9	29.7	44.4	52.5	37.7	19.8	23.2	36.9
finer	44.3	63.0	44.5	42.1	55.0	59.4	59.4	52.5

composition Zone III



Zone IV

Tableau 4: Composition

Classes	Selected Values (%)		Average
inerts	0.6	1.4	1.0
plastics	0.6	1.0	0.8
paper card	1.2	1.4	1.3
organic	14.2	27.9	21.0
fines	83.4	68.3	75.9

These results must be tempered because of the moisture present in the solid waste at the time of sampling and characterisation (rainy season)

5 - CHOICE OF PROJECT ZONE

After the feasibility study of the entire city

. The principal criteria used to fix the project zone was the willingness to pay for the services to be rendered ;

. The second criteria was the presence of a grassroots organisation or association in the quarter, suited to the project and willing to lead it within the framework of a self-promotion of neighbour hood groups ;

. The quarter called WOGODOGO was chosen . It's population is 25 000 inhabitants essentially consitued of Mossi, the majority muslim ;

. The following table illustrates the willingness of the population of Wogodogo to pay for the service rendered.

Question N° 33

Table 24 : willingness to pay of persons questioned

Amount	Refused	- 500	500-1000	1100-1500	1600-2000	2100-1500	Indetermined	Total
Total	16	30	56	9	1	1	34	147
%	10,5	20,5	38,5	6,5	0,5	0,5	23	100

Source : CREPA / IAGU study march 1992

The availability of people questioned to pay for the waste collection service varied between 100 F and 1 000 F and represented (20.5 % + 38.5%) 59 %

Certain people remain opposed to any financial contribution (10.5%) to support the project as opposed to 23% ready to pay whatever amount fixed by the project initiators.

Practically 60% of the population questioned is prepared to pay 500 - 1000 FCFA in the zone of Wogodogo.

The following table illustrates that most people prefer to pay by the month for services rendered.

Mode of payment of people questioned

Mode payment	Refused	By year	by months	by week	by operation	undecided	Total
Total	16	7	74	2	14	34	147
%	10,5	5	50,5	1,5	9,5	23	100

Source : CREPA - IAGU study March 1992

The people questioned are most prepared to pay monthly installments (50,5 %)

Willingness to sort garbage

Response Quantity	Yes	No
Total	69	78
%	47	53

Source : CREPA - IAGU study March 1992

This willingness to sort garbage before collection is not well established in the people questioned ; only 47% gave a favourable response.

Frequency of participation at meeting on solid waste

Frequency Quantity	Quarterly	Monthly	Bi-Weekly	Others	Undecided
Total	42	57	11	25	12
%	28,5	38,5	7,5	17	8,5

Source : CREPA - IAGU study march 1992

According to the availability by report of the activities of each, the people questioned approved sectional discussion meeting and are prepared to participate as a majority at a monthly frequency (38,5 %)

Valorization of refuse

Form of valorization Quantity	Recycling	Composting	None
Total	5	11	131
%	3,5	7,5	89

Source : CREPA - IAGU study march 1992

The people questioned do not enhance the value of refuse much 3,5 % recycle (cattle dung, bottles) and 7,5% compost.

53% of the people questioned refuse to sort to refuse at the source.

6 - PARTICIPATIVE OBSERVATION AND RESEARCH

The criteria for technical and economic choices were identified by the questionnaire and the feasibility study ; however an outwardly important criteria is the acceptance or opposition to the project of the grassroot communities of the quarter.

The strategy used is observation and discussion / debate to better understand the way of life of the population ; this stage took place over seven (7) months between October 1992 and May 1993. The different stages of this strategy are :

- Contact with traditional and municipal authorities. This consisted essentially in presenting the project and its specific objectives (the health of the quarter, the creation of employment, the research action with a process of structural apprenticeship on the part of CREPA) ;

- contact with the population.

This took place with the principal social groups of the quarter, existing women's associations, pressure groups of the quarter who dozen wise men each had behind him 200 families which they could influence.

During these group workshops, the observations confirmed or invalidated the conclusions of the feasibility study. The principal conclusion drawn by the communication team was that 320 families or 3 200 inhabitants were prepared to participate and to pay from the start of the project. This seems contradictory in relation to the expressed willingness to pay, which had been evaluated at 60% of the population.

During the months of february and May, other tools of dialogue and negociation were introduced to identify any resistance : talks, film presentations, visits to other sites, SARAR participative methods constituted the approaches (good, less good, poor) also introduced during the discussions.

The women leaders of grossroot associations took the direction of the animation and communication to mitigate conflict and convince other families.

7 - THE ANALYSIS AND LOCAL PLANNING OF DIAPOS

Drawings presenting the situation before and after a project had been opened were produced to relieve the reluctance of a number of key people (case study at HIATUS).

During the public discussion meetings, different technical alternatives were presented to the women of grassroot associations and to the wisemen of the quarter. The technical and financial advantages and drawbacks were raised (tipping trucks, tractors, donkey drawn carts). The definitive choice of technology was made for the grassroots associations made up of 80% of the women of the quarter.

The planning, analysis and activities were undertaken by the women's associations.

The priority conclusions of this analysis are :

- . The continuation of the discussion / debates ;
- . the painting of subscription numbers in front of each concession ;
- . the marketing of the project by the free collection for a week for all people subscribing before 1st of may 1993 ;
- . the identification of an intermediate transfer site and its development ;
- . the follow-up of work projects in the field (removal of informal dumps in the quarter) ;
- . the effective opening date was fixed as 1st may 1993.

8 - OPENING OF THE DIAPOS PROJECT

The artisan/workers, welders were chosen to manufacture the carts who were put at the disposition of CREPA which followed their performance.

The transfer station was provisionally planned for two months after the effective start of rubbish collection.

8.1 Training of project personnel

CREPA participated in the preparation and training of the project personnel in the following domains :

- training in the financial management of the projects (accounting)
- training in participative methods and tools for communication
- sensibilization to illness related to water and waste.

9 - ASSESSMENT AND PROSPECTS AFTER SIX MONTHS OF ACTIVITY

- The number of subscribers is around 650 families of which an average 540 pay a rate of 500 fCFA per household. this makes an average population of 5 400 persons affected by the project in six months of activity.

- The CASH FLOW NET or net profit deposited in the bank was 804 000 fCFA at the end of October.

- . Twelve (12) jobs were created in the quarter
- . future prospects are the reinforcement of the transfer site development, sorting/ composting at the transfer site which should open in the next three months ;
- . the building of a public pay latrine at the market area of the quarter, which will be financed and managed by the grassroot association.

10 - FOLLOW-UP EVALUATION

A CREPA team carried out a regular follow-up during the six months and an evaluation permitted the determination of the performance of different workers of the project and the correction of any problems.