INTERNATIONAL TRAINING NETWORK FOR WATER AND WASTE MANAGEMENT (ITN)

EVALUATION OF NETWAS

(NETWORK FOR WATER + SANITATION) ITN'S REGIONAL CENTRE FOR EAST AFRICA

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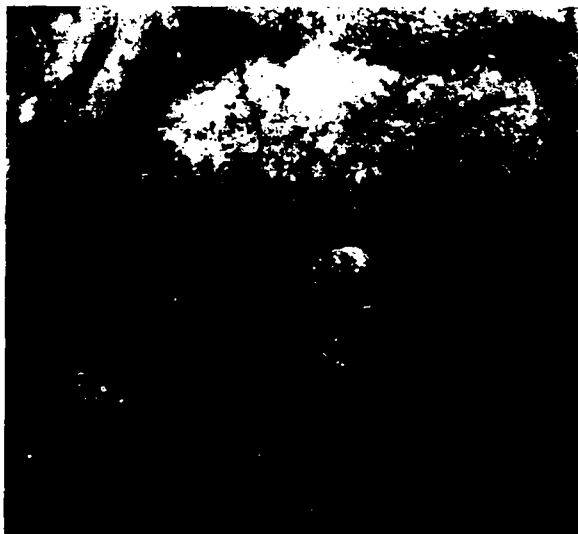
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EVALUATION REPORT

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* Edition of report

TABLE OF CONTENTS

Page

LIST OF ABBREVIATIONS AND ACRONYMS

ACDC	Assistant Commissioner Design and Construction
ACMO (HS)	Assistant Chief Medical Officer (Hospital Services)
ACMO (P)	Assistant Chief Medical Officer (Preventive)
ACMO (T)	Assistant Chief Medical Officer (Training)
ACOM	Assistant Commissioner Operation, Maintenance and Water Quality Laboratory
ACSD	Assistant Commissioner Water Research
ADMIN	Administration
AFYA	Ministry of Health
AIT	Asian Institute of Technology
AMREF	African Medical and Research Foundation
AVA	Audio-Visual Aids
CBWSS	Community Based Water Supply and Sanitation
CDA	Community Development Assistant
CDO	Community Development Officer
CDTF	Community Development Trust Fund
CEFIGRE	Centre de Formation International de la Gestion des Ressources en Eau
CEP	Commissioner for Energy and Petroleum
CHO (ES)	Chief Health Officer (Environmental Sanitation)
CMO	Chief Medical Officer
CMR	Commissioner for Mineral Resources
CREPA	Centre Régional pour l'Eau Potable et l'Assainissement à faible coût
CTT	Core Team of Trainers
CWA	Commissioner for Water Affairs
DANIDA	Danish International Development Agency
DAP	Director of Administration and Personnel
DCD	District Community Development
DCDO	District Community Development Officer
DG	Director General
DED	District Executive Director
DGIP	Division of Global and Inter-Regional Programmes
DHO	District Health officer
DMP	District Medical officer
DMOH	Deputy Minister for Health
DMWEM	Deputy Minister for Water, Energy and Minerals
DWO	District Water Officer
EHU	Environmental Health Unit (within AMREF)
ESA	External Support Agencies

ET	Evaluation Team
GO	Government
GTZ	Gesellschaft für Technische Zusammenarbeit
HA	Health Assistant
HESAWA	Health through Sanitation and Water
HRD	Human Resources Development
IC	Intercooperation (Backstopping institution)
IDWSSD	International Drinking Water Supply and Sanitation Decade
ITN	International Training Network
IRC	International Reference Center for Water and Sanitation
IRCWD	International Reference Centre for Waste Disposal
MA	Medical Assistant
MCDWAC	Ministry of Community Development, Woman Affairs and Children
MLG	Ministry of Local Government and Regional Administration
MOH	Ministry of Health
MWEM	Ministry of Water, Energy and Minerals
NETWAS	Network for Water and Sanitation
NGO	Non Governmental Organisation
NRC	National Reference Centre of ITN
O+M	Operation and Maintenance
PALNET	Participatory Learning Network
PHC	Primary Health Care
PHEM	Participatory Hygiene Education Methodology
PMT	Participatroy Methodology Training
PPR	Project Progress Review
PRA	Participative Rural Appraisal
PROWWESS	Promotion of the Role of Woman in Water and Environmental Sanitation Services
PS	Principal Secretary
RC	Regional Centre of ITN
RCDO	Regional Community Development Officer
R+D	Research and Development
RDO	Regional Development Officer
RHO	Regional Health Officer
RMA	Rural Medical Aid
RMO	Regional Medical Officer
RWE	Regional Water Engineer
RWSG-EA	Regional Water and Sanitation Group - East Africa
SARAR	Self esteem, Association strength, Resourcefulness, Action Planning and Responsibility

SATIS	Socially appropriate technology international information services
SDC	Swiss Development Cooperation
SIDA	Swedish International Development Authority
SKAT	Swiss Centre for Development Cooperation in Technology and Management
TCRS	Tanganyika Christian Refugee Services
TCWS	Training Centre for Water and Sanitation
TNC	Training Network Centre
TOR	Terms of Reference
TOT	Training of Trainers
UDC	Universal Decimal Classification
UNDP	United Nations Development Programme
VHW	Village Health Worker
VIP	Ventilated improved pit latrine
WB (HQ)	World Bank (Head Quarter)
WHO	World Health Organization
WSS	Water Supply and Sanitation
WTP	Willingness to Pay
YWCA	Young Women Christian Association
ZOPP	Objectives Oriented Project Planning (Ziel-Orientierte Projekt-Planung)

ACKNOWLEDGEMENTS

1. EXECUTIVE SUMMARY

1.1 Background and Achievements

The International Training Network for Water and Waste Management (ITN) is a UNDP/WB Programme that was set up as part of the global support to the International Drinking Water Supply and Sanitation decade (IDWSSD). Its main objective is the promotion of Community-Based Water Supply and Sanitation (CBWSS) through training and information support services. The network for Water Sanitation (NETWAS), established at AMREF in Nairobi in 1986, was the first of the four ITN centres in Africa.

The centre is identical with the Environmental Health Unit (EHU) in the Department of Community Health at AMREF.

AMREF has been most helpful in setting up NETWAS because of its network in the region. As NETWAS however, became more established, this strong link seems to have become a hindrance to NETWAS in building up its own identity and to avoid being confused as a competitor to its partners.

The sole donor of NETWAS' regional activities is SDC. An advisory board composed of representatives from government, NGOs, donors and resource centres supports NETWAS' management through regular meetings. In addition an external consultant provides regular backstopping.

NETWAS at present has a total staff of 15, composed of 7 professionals, 4 technicians and 4 administrative support staff. Three of the professional staff are in charge of country offices. Of the rest, two are information officers covering the region and one is a participatory training development associate.

NETWAS has established a network and contacts amongst the following three types of groups:

*   partners and suppliers, such as ITN on a global and African level, resource centres, such as UNDP/WB, IRC, IRCWD, SKAT, etc. and donor institutions;
*   potential clients, such as government institutions and NGOs;
*   governments, policy/decision makers, i.e. managers and directors (this group is situated between the first two).

NETWAS operates in the following countries with reduced intensity : Kenya, Uganda, Tanzania, Ethiopia, Sudan and Eritrea.
NETWAS' main activities with its clients have been in the following three fields :

*   Documentation, information and communication
*   Human Resource Development (HRD), training both in technologies as well as in approaches and methodologies (hard- and software);
*   Advisory services in the areas of hard- and software.

Documentation and information centres have been established and/or supported initially through the supply of well selected free books and teaching aids followed up in an unsystematical way by training of documentalists. Training of trainers including future field staff of government institions and NGOs has been provided both in technologies as well as in approaches and methodologies. Wherever possible this training has been combined with practical application in a form of on-the-job training. For that purpose, so-called demonstration projects have been implemented by NETWAS at grass roots level. These training and advisory services have been mainly aimed at the dissemination of low cost technologies and the improvement of staff engaged in the W+S sector, but not systematically at institution-building, i.e. establishing national capacities for the ITN objectives.

The achievements are manifold, about six documentation and information centres, sometimes simply in the form of libraries, have been established. They are mostly well-maintained. Many of them, in particular the one at NETWAS, are highly frequented and considered to be of a high quality. Recognition and confidence has been achieved at the various levels of the clients and target groups. Training, in particular on-the-job training, is in high demand by those institutions who have already received such trainings. Awareness of the importance of a CBWSS project which includes participatory approaches to achieve sustainable improvements in the W+S sector has increased, not only at the level of trainers and field workers, but obviously also at the level of regional managers and departmental directors. Some hesitation on the part of NGOs to collaborate with NETWAS originate from the fact that they confuse NETWAS with other units of AMREF, whose activities seem to compete with those of the NGOs. The above-mentioned achievements are concentrated mainly in Kenya, to a lesser extent in Uganda and Tanzania, and to an even lesser degree in Sudan and Ethiopia. In Eritrea only first contacts have been established.

ITN coordination and donor support at country level has been continuously decreased and today has reached the level of practically zero. If it were not for SDC's support for its regional activities, NETWAS would be without financial means. RWSG reinforced the software side of NETWAS through the provision of an experienced trainer on participative learning methods.

The political and economic environment in which NETWAS has to operate has not been favorable everywhere. Travelling freely seems to be impossible for NETWAS staff in Sudan at present. Key personnel to which excellent contacts had been established in the relevant ministries in Ethiopia have recently retired because of the ongoing structural adjustment programme. None of the NETWAS local clients is in a position to pay for the services provided (i.e. government training institutions have no budgets for training of trainers, etc.)

1.2 Evaluation, Conclusions and Recommendations

After seven years of operation and just before the planning of phase V, it was decided that NETWAS should be assessed by means of an external evaluation. The main questions to be answered were the following :

a) **"Are they doing the right thing ?"**
b) **"Are they doing it in a correct way ?"**
c) **"Will they be able to do it on a sustained base ?"**

In a first step, the history of the project was studied and the project planning matrix (PPM) reconstructed before the activities and achievements were reviewed and assessed. The assessment and evaluation regarding efficiency, effectiveness and impact were done by the evaluation team in close collaboration with the project team. Solutions and recommendations were elaborated and developed in team working sessions and bilateral discussions before being reviewed and finalized during a two-day debriefing seminar. This process produced the following answers to the above questions :

a) **"Yes, in general they seem to be doing the right thing. Yet NETWAS' activities are mainly based on a top-down needs' analysis and lack a clear demand and market analysis !"**

A thorough market analysis should provide information on the target groups, their demands and marketing needs (promotion in case of lack of awareness) as well as on existing gaps and holes which could best be filled by NETWAS. Based on this market analysis a business plan including HRD requirements etc. should be developed. By doing this the main aspects of balanced development need to be considered. This includes social, institutional, economic and technical components as well as the one dealing with "knowledge and norms". The presently-applied approach to reinforce existing bodies and work through them and not directly with the end-users is certainly relevant. The promoted method of participative learning is very important and relevant to WSS promotion at all levels. The scope of promotion of low cost technologies needs to be broadened to the level of appropriate technologies. This includes offering technical options to solve the WSS sector's needs and assisting in decision-making by showing their advantages, disadvantages, consequences - both institutional and financial. In other words, appropriate technologies should be promoted together with their system requirements.

b) **"NETWAS has in most cases been quite efficient in implementation. Effectiveness is probably acceptable as far as achievement of results is concerned, but the effects on the ITN objective are certainly behind expectations".**

Considering the means available and the achievements assessed in documentation and information, networking, training both in technology and approaches, the extraordinarily motivated NETWAS team has been very efficient. The existing planning tool (PPM) has been frequently used to review progress, yet mainly only on the level of activities. The significant changes in the assumptions taken at the outset of the

4

project were not taken into consideration in reviewing the relevance of the planned results and project concept. These shortcomings in planning and management led to a lack of orientation. Since ITN at the level of UNDP/WB remained passive and did not provide ideas on a reviewed concept and strategy, NEWAS mainly continued in trying to fulfill the targets of the set activities.

A revision of the concept is required. It has to be based on the above-mentioned market analysis and business plan as well as on the planned cross-sectional analysis of various evaluations of ITN centres. In any case, focusing and concentrating NETWAS' activities on the main issues is greatly required. This means the building up of National Reference Centres (NRC) in a manageable number of focal countries has to be emphasized with priority.

Donors additional to SDC need to be encouraged to support individual national ITN programmes (building up of NRCs). This support has to be carefully balanced, so that sufficient means are made available on one hand to build up and inititate the NRCs as well as to maintain the non-sellable services, such as documentation and information dissemination. On the other hand, however, marketable services should not be subsidized, so that the centres are forced to adapt their services creatively to the market's demands.

c)   **"The present set up of ITN East Africa and NETWAS lack of clear structures which would provide a sustained base for the institutions and their services and therefore achieve a sustainable impact. Realistic and practical options for a transparent and manageable set up need to be developed."**

The final aim of the project certainly is to achieve a sustainable impact. One of the main criteria of this achievement consists of sustainable provision of the services proclaimed by ITN (training and information support). Since the present ITN system including NETWAS as an institution, is far from sustainable by any measure, the following option has been developed and is recommended for further elaboration. The ITN global network should be revived, provide assistance in concept development and function as a monitoring and evaluation (M+E) pool at least up to the time when regional or national networks are well-established. These M+E activities should support a continuous learning process. NETWAS as RC East Africa has to focus its activities on initiating and supporting the building up of NRCs, preferably within existing capable institutions. Once the NRCs have been established, NETWAS as a RC would merge with the NRC Kenya and probably still maintain some coordinating functions. ITN East Africa would not maintain a separate coordination office with separate budget needs. However, each NRC would be autonomous and the network would continue to function to the extent of their partners benefitting from it.

NETWAS' status within or outside AMREF requires upgrading, which means increased autonomy. This is required to avoid confusing NETWAS with AMREF's other activities which some participating NGOs perceive as being partly competitive, as well as to achieve the requried recognition and identity of NETWAS.

NETWAS' management system requires reorganization. The different activities and services provided should be covered by separate subsections, such as documentation, information, training, technical advisory service, software advisory service, etc. Each subsection should have its own plan of operation, budget lines, etc. In this way those subsections which require external financial support (such as documentation) can be clearly distinguished from those who have to obtain their income from marketing their services (such as advisory services). NETWAS' internal HRD requirements have to be shown in the market analysis, respectively business plan. Increased capacity for management and institution-building seem to be among the most prominent needs.

Whichever measures are considered to be relevant for the improvement of NETWAS' services, the following two aspects need to be kept in mind :

- The present high motivation and team spirit of NETWAS should not be hampered negatively by any so-called advanced management system.

- The proclaimed market and demand orientation to achieve sustainable projects and impacts should not result in leaving behind and forgetting the poorest who have no purchasing power.

2 INTRODUCTION

2.1 The Evaluation Team (ET) and Its Terms of Reference (TOR)

2.1.1 The Evaluation Team (ET)

The ET comprised members of different disciplines, background and origin, so that they would complement each other in an optimal way to fulfill the set multi-disciplinary target. The team members are briefly described below :

- **Ms Vivian Bashemererwa**
  B.Sc. (Makerere), M.Sc. (Dar es Salaam)
  Since 1982 : Senior Manpower Management Officer Higher Degrees,
  University of Dar es Salaam

  Studies and professional experience in personnel management. Participated in various national and international studies and workshops as resource person. Wide experience in organising/coordinating seminars, workshops, congresses and research projects.

- **Andrew Makokha of Wakasa Consultants**
  Deputy Director of water development in charge of monitoring and coordination in the Ministry of Land Reclamation, regional and water development.

  Background of civil engineering with specialisation in water and public health engineering. Worked on institutional capacity-building in the water sector in Kenya, Tanzania and Zimbabwe for five years. Experience in low and conventional cost water and sanitation facilities and in project management, both at large scale private sector and community level.

- **Karl Wehrle**
  Head Infrastructure and Construction Section of SKAT (Swiss Centre for Development Cooperation in Technology and Management). KW has a background in civil engineering, he has been involved in the sector of Water and Sanitation in Development Cooperation since more than 20 years of which he worked 10 years in community development projects in the field. His experience is not only in the areas of appropriate technologies and training for W+S, but also in community issues such as promotion, institution-building and operational and maintenance aspects.

  SKAT is an information, documentation and counselling centre in the field of appropriate technology specializing in energy (especially micro hydro power), water (drinking water supply, handpumps, sanitation) and construction materials (particularly roofing materials). In many instances SKAT operates very similarly to NETWAS and therefore a potential for useful synergies is provided.

2.1.2 Terms of Reference

An extract of the TOR is provided below. Detailed TOR are included in Annex 1. The evaluators have been requested to consider the following aspects :

- Application of the methodology indicated in the "Guidelines for Project Progress Review" (GTZ), as an orientation.

- Covering of the following specialist field (of which one or two were specified to each evaluator) :

    a)   Human resources development
    b)   Documentation/information and communication
    c)   Community-based water supply and sanitation (technology and approaches)
    d)   Institutional issues of water supply programmes

- Working out recommendations on the following areas in particular (keeping in mind however that gender related issues must be given due consideration throughout the process).

    a)   NETWAS programme strategy (relevance, efficiency, effectiveness, impact and sustainability)

    b)   NETWAS external cooperation

    c)   NETWAS internal management and institutional integration.

- Encouraging senior government and NGO partners of NETWAS in the participation of the evaluation exercise.

2.2 Evaluation methodology and process

2.2.1 Mandate

The ET was requested in the terms of reference (TOR) to conduct the evaluation by using the methodology indicated in the "Guidelines for Project Progress Review" (PPR) by GTZ as an orientation. According to these guidelines definition and purpose of PPR are as follows :

> "A project progress review is a systematic examination of the planning, implementation and impacts of a Technical Cooperation project or programme, considering all aspects relevant from the development-policy and sector-specific viewpoints, with the aim of ensuring the effectiveness of future project work by means of operational recommendations."

In the context of the NETWAS project, the results of the evaluation were expected to serve in addition as a basis for the planning session of the next phase, which is foreseen to be conducted using the ZOPP-method.

2.2.2 Participatory evaluation / external evaluators as facilitators

When considering the aim of PPR according to the above mandate, it became immediately clear that the PPR should not be a one-sided appraisal by the external evaluation team, but rather an objective-oriented fact-finding process undertaken by the ET together with the NETWAS team, their clients and counterparts as well as with the desk officer and backstopper responsible for the project. The ET was well aware that the actors of the project know much more about the project than the ET could grasp in the three weeks of appraisal. That is why the ET understood itself more as facilitators to undertake a well- coordinated assessment as well as to support a structured learning process together with all the actors involved. The results of the evaluation - consisting of findings, evaluation of efficiency, effectiveness and impact which finally led to conclusions and recommendations - had to become part of the project actors' perception and conviction and not merely to be taken down in the final report.

2.2.3 Evaluation Process

a) **Desk Research**
   In a first step the documents including progress and mission reports, studies, etc. made availablle through SDC and IC (cf. annex 2) were studied and analyzed. This desk study was supported and complemented by interviewing the SDC desk officer, the backstopping team (IC) and some representatives of the NETWAS' advisory board.

b) **Preliminary field Investigations**
   At the same time when the desk research was undertaken, two experienced sociologists were conducting field investigations following a predesigned questionnaire. Julia Kunguru visited institutions and projects in which NETWAS has been involved in Uganda and Western Kenya, while Vivian Bahemererwa conducted similar investigations in Tanzania. The results of these appraisals in the field were presented

9

and discussed at the beginning of the ET's work in Kenya. Findings, conclusions and recommendations have been recorded in two separate field reports (cf. annexes 7 and 8) and were considered as an important basis for the final project analysis.

c) **Main assessment and evaluation by ET together with NETWAS team**
During a three weeks' intensive evaluation process, the ET and NETWAS worked together closely. After getting to know each other and building up a solid basis of confidence, the work programme was designed (cf. annex 3). Working sessions among the ET and NETWAS team were alternated; according to need they worked together or each on its own. Important assessments, conclusions and recommendations were mostly developed together. The SWOP method (cf. annex 20) was often applied to facilitate an efficient assessment. A visualization method was used in all team sessions to ensure equal participation of all members. Individual interviews were held by the ET with each NETWAS staff member. Interviews were conducted by the ET exclusively on its own with NETWAS clients and partners (cf. annex 4). These interviews were semi-structured to facilitate a broad fact-finding process through open discussions and conversations.

Limited field visits were undertaken both in Kenya and Ethiopia. These visits were considered to be important not only for the fact-finding process and analysis, but also for the ET to have direct contact with the reality at the grass roots level.

In the final stage the findings, evaluation of efficiency, effectiveness and impact together with the conclusions and recommendations were presented and reflected during a two days' debriefing seminar. The audience of the debriefing seminar comprised representatives of Swiss Embassy, SDC, RWSG-EA, AMREF, KEWI together with the NETWAS team and ET (cf annex 19). The debriefing seminar, which was conducted in the form of a workshop, revealed many additional insights, helped to improve the recommendations and to decide about the immediate actions required.

2.2.4 Evaluation Report

The evaluation report has been done rather extensively. This was done with the view that the learning process which leads to the conclusions and recommendations should remain transparent, so that it can be recalled if the need arose. Recommendations again are presented as comprehensively as possible, which means with all the details available at this stage. This is done in order to assist to the best possible degree in making the recommendations operational. Overall, the evaluation report is intended more as a management tool rather than as a justification report. The structure of the report follows the specified fields in the TOR, which were again assigend separately to the ET members.

2.3   Project-Background

NETWAS was established in 1986 at AMREF as part of the International Training Network for Water and Waste Management (ITN). The ITN was set up under the UNDP-World Bank Water and Sanitation Programme after a programme of development of learning materials on low cost water supply and sanitation technologies. The latter were developed between 1981—1985 by the Technical Advisory Group (TAG) of the UNDP-World Bank Programme as a contribution to the International Drinking Water Supply and Sanitation Decade (1981-1990). At the end of the development phase the idea of setting up regional centres of excellence (ITN Centres) to disseminate the training materials was conceived.

NETWAS was the first ITN centre to be set up in January 1986. This was especially facilitated by the fact that the host institution AMREF already had a regional operation capability in Eastern Africa and at the time, had plans to open national AMREF offices in Uganda and Tanzania. NETWAS mandate was to cover the six countries of Eastern Africa namely; Kenya, Uganda, Tanzania, Ethiopia, Sudan and Somalia. Somalia was dropped in 1992 because of security problems. First contacts with newly independent Eritrea were established in 1993.

The establishment of NETWAS was closely followed by that of other ITN centres in Africa namely : Centre Regional pour l'Eau Potable et l'Assainissement à faible cout (CREPA) in Ouagadougou, Burkina Faso which caters for the francophone countries of West Africa (1987); Training Centre for Water and Sanitation (TCWS) located in Harare for Zimbabwe (1989); and Training Network Centre (TNC) located in Kumasi for Ghana (1989).

NETWAS' overall objective is to improve access to and effective use of water and sanitation on a sustainable basis by the under-served. The specific objective is to build national/regional capacity to achieve the overall goal. The emphasis is on decentralised management to communities and local authorities, participatory training and low cost technologies. NETWAS has three major areas of focus:

- **Training** — Development of training networks; training of trainers; and targeted training of senior sector staff with key roles in the sector; promotion of participatory training techniques.
- **Promotion** — Promotion of debate on sector issues; exchange of information, skills, knowledge, technologies; research that is practical and demand driven
- **Advisory Services** — Provision of advisory services on Human Resources Development (HRD) and institutional issues.

Information dissemination is one aspect which is high on the agenda of NETWAS. Consequently NETWAS has established a documentation centre with a large collection of materials. The documentation centre is computerised and uses CDS/ISIS software.

On the other hand the need for collaboration in the W+S sector is increasingly being recognised as an important component of enhancing sustainable sector management. NETWAS encourages and promotes this collaboration. Annual meetings are organised where ITN centres, sector managers, government representatives, NGOs, training institutions and donors meet to exchange ideas and experiences on topical sectoral issues. The 5th ITN Africa Region Meeting from November 29 to December 2, 1993 with the theme : *Collaboration in the Water and Sanitation Sector for Sustainable Development* was organized by NETWAS.

2.4 Project Implementation History

2.4.1 Initiation of NETWAS

As stated above NETWAS was established in 1986 as the ITN centre for Eastern Africa hosted by AMREF. AMREF is a health organisation whose early clinical services in East Africa evolved into primary health care activities when its Kibwezi PHC Programme was initiated in 1980. This project comprised a water component which was set up in 1983. As a consequence of this water component, the Environmental Health Unit was established at AMREF headquarters.

In January 1986, NETWAS had a skeleton staff comprising only the head and a secretary. This number was gradually increased and at the end of 1986, there were 3 professional staff including the head and deputy head of NETWAS, five technicians/artisans and 2 administrative staff. The professional staff gradually increased to a maximum level of seven in 1990. This level of staff has since been maintained.

The NETWAS donors were identified in 1985 by the UNDP-World Bank as SDC and GTZ. A tripartite agreement between SDC and GTZ on one hand and AMREF on the other was entered. SDC has continued to be the key donor for NETWAS regional programme.

2.4.2 Phasing

NETWAS regional programme which is funded by SDC has been implemented in two-year phases as shown below. NETWAS is currently implementing Phase IV which ends in September 1994. Phase IV was slightly longer than other phases because it was the intention of NETWAS to synchronise its financial year with that of AMREF which runs from 1 October to 30 September.

Phase I: January 1986 - December 1987
Phase II: January 1988 - December 1989
Phase III: January 1990 - December 1991
Phase IV: January 1992 - September 1994

2.4.3 Countries of coverage

During Phase I NETWAS operations were concentrated in Kenya, Uganda and Tanzania. The selection of these countries was related to the historical association among the three countries and more so due to the fact that the host institution AMREF had operations in those countries. During the Phase II (1988-1989), initial contacts were made with institutions in Ethiopia, Somalia and Sudan. But it was not until Phase III when actual operations began in the three additional countries. In 1990 security in Somalia was a matter of concern as it became increasingly difficult to have any meaningful activities in that country. Consequently operations in Somalia were officially dropped during the planning of Phase IV in September 1991.

After the independence of Eritrea in 1992, NETWAS proposed to make initial contacts with institutions in that country. An initial visit was made by NETWAS in June 1993. The mission had positive results and it was recommended that Eritrean institutions should to a moderate

extent, be included in the NETWAS programme during Phase IV. Thus currently operations of NETWAS cover Kenya, Uganda, Tanzania, Ethiopia, Sudan and Eritrea.

2.4.4 Evolution of objectives of NETWAS

The objectives of NETWAS have evolved over the years from the original focus on dissemination of low cost materials which were published by the UNDP-World Bank to that of providing support and capacity-building in the areas of training, information dissemination, promotion, HRD activities and collaboration in the water and sanitation sector. This is primarily due to changing circumstances within the sector in the region and also in response to demand for services expected of NETWAS. For instance at the early stages, NETWAS mainly concentrating on training workshops for low cost technologies. Lateron it was realised that various other aspects needed to be considered and the philosophy of low cost technology was substituted with "community based water and sanitation approaches". This was considered to encompass the training in community management including participatory approaches. Focusing of NETWAS objectives was especially emphasised at the ZOPP workshops of September 1989 (planning of Phase III) and September 1991 (planning of Phase IV). In addition, the objectives of NETWAS have been further focused through discussions and debates held at the annual ITN Africa Meetings especially the third meeting held in Zimbabwe in 1991.

The primary aim of NETWAS may be summarised as "to increase service coverage in W+S sector for the low income groups in Eastern Africa". This broad aim has resulted into a number of objectives which NETWAS hopes to achieve during the Phase IV. These are :

- Support and enhancement of training in community based approach within the sector.
- Establishment and promotion of active information dissemination among sector ministries, training institutions and NGOs for effective sector management.
- Promotion of improvement and application of appropriate technologies in WSS projects.
- Promotion of a multi-disciplinary approach in planning, implementation and management of CBWSS Projects.
- Promotion of applied research and appropriate technologies.
- Provision of consultancy and advisory services.

2.4.5 Strategies

NETWAS uses the strategy of capacity-building of WSS institutions through :

- Training in CBWSS
- Information dissemination
- Advisory services
- Support to applied research including demonstration projects
- Dialogue

2.4.6 Planning of NETWAS Programme

In 1989 NETWAS adapted the ZOPP methodology for carrying out the planning of Phase III.

13

A ZOPP workshop was held in September 1989 and was attended by representatives of RWSG, UNDP-World Bank HQs, SDC, GTZ, AMREF and NETWAS.

The ZOPP methodology was repeated in the planning of Phase IV in September 1991. The participation at this workshop was expanded to include NETWAS clientele mainly the representatives of the ministries of water and health in Kenya, Uganda, Ethiopia and Tanzania. The inclusion of the clientele in the planning of NETWAS Phase IV assisted to bring out issues where NETWAS was considered to be a useful vehicle to implement or coordinate. Some examples include a) promotion of regional collaboration through organised regional annual conferences/seminars and b) promotion of information exchange and dissemination at country and regional level.

2.4.7 Monitoring of NETWAS Programme

There has been regular internal monitoring of the NETWAS programme by NETWAS staff. In addition an external consultant, Infraconsult AG, has been retained by SDC since the implementation of Phase III to provide backstopping services to NETWAS. Infraconsult has continued to provide about two monitoring missions every year where the programme is reviewed and revised in a participatory way with the staff of NETWAS.

2.4.8 NETWAS collaboration with sector Institutions

In the early days of its establishment NETWAS considered that its impact would be more effective if it directed its resources and efforts in capacity-building of existing institutions. The first step was therefore to identify the key partners 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.
- Donor community operating or implementing programmes in the region.
- International institutions such as (IRC in The Hague, IRCWD and SKAT in Switzerland and ENSIC in Bangkok). Such institutions provide technical resources to NETWAS.

NETWAS programmes have therefore been directed towards the strengthening of the capacity of the regional institutions in community based approaches. This has been implemented through organised refresher courses and workshops, regional conferences or seminars, information support, and organised study visits to successful programmes within the region. A regional newsletter which is produced by NETWAS helps to exchange information on current trends in the sector.

2.4.9 NETWAS Management

NETWAS was established within AMREF and located under the Community Health Department in the Environment Health Unit which served as the practical host. Administratively

NETWAS therefore reports to the Director of Community Health Department.

There had been a move within AMREF management to upgrade NETWAS to a department in 1989 but this never materialised. In addition the persons holding the position of Director General of AMREF changed in 1990.

NETWAS' Advisory Board was established in 1992 on the recommendation of the third ITN Africa Meeting in December 1991. The first meeting of NETWAS Advisory Board was held in September 1992. Initial members of the board included those institutions which were closely associated with NETWAS namely, RWSG, AMREF, SDC, GTZ and NETWAS. On the recommendation of the First Advisory Board, the membership of the Board was expanded to include NETWAS clientele — government and NGO representatives. The second meeting of NETWAS Advisory Board was held in December 1993.

2.4.10 Funding of NETWAS Programme

NETWAS was initially funded as a regional programme through a tripartite agreement between SDC and GTZ on one hand, and AMREF on the other. Thus during phase I (1986—1987) NETWAS received its funding from SDC and GTZ. This situation subsequently changed when GTZ found that its policy did not provide it with the flexibility to continue funding a regional programme. NETWAS was thus requested by GTZ to prepare a country proposal for Kenya which was later funded by GTZ during Phase II (1988—1989). Due to delays in the commencement of the GTZ funded component, this funding was effected in July 1989 and ended in December 1991.

During the implementation of Phase I, NETWAS realised that a meaningful impact of its programme could best be achieved if there were country offices to assist it in providing in-country backstopping services. GTZ had already expressed the interest to fund the Kenya component and this was realised in 1989 as stated above. DANIDA was interested in considering Uganda. SDC agreed to fund Tanzania over a transition period until an other donor would take voer. This arrangement was terminated in September 1992, despite the fact that no other donor could be found.

NETWAS submitted a proposal to DANIDA in 1988 who agreed to fund EHU Uganda for the period July 1989 to July 1992. Towards the end of 1992, EHU Uganda prepared an extension proposal for a 5-year phase which was submitted to DANIDA for funding from July 1993. This proposal was appraised and approved by DANIDA. Bridging funds have been provided and the second phase of EHU Uganda is expected to commence in April 1994.

The only NETWAS staff who was stationed in Dar-es-Salaam has been seconded to the Health Behaviour and Education Department of AMREF for the next 3 years.

3. ANALYSIS AND ASSESSMENT OF PROJECT PLANNING

The project planning matrix (PPM) (cf. annex 22) was reconstructed and the history of the project studied in order to understand the project design and to detect the changes which have evolved as an adjustment to changes in internal and external assumptions. Finally the reference and relevance of the planning and project design was evaluated.

3.1 Context and problem analysis

The "Problem Hierarchy Tree" developed at NETWAS' ZOPP Workshop in September 1991 is still relevant which is not surprising since it is very comprehensive. The question which remains is the priority of the problems that NETWAS should focus on, and the criteria which were applied in this decision. It seems that decisions concerning this issue have been done in a pragmatic way, which means problems to be attended to have been selected according to available resources, means and preferences. This is justified and acceptable since focusing is required in any case, but the underlying problem is that the problems and needs have been identified by outsiders. The problem awareness of the beneficiaries is very limited, hence their demand is almost non-existent. Yet, the ITN-programme proclaims at all levels that its activities should be determined by demand. This contradiction reflects the reality and therefore represents a challenge which the programme has not dealt with sufficiently. In a first step more appropriate methods (i.e. PRA, cf annex 21) need to be applied for a more profound analysis of problems and needs. Additional measures are suggested in the following chapters (i.e. 3.3) to meet with this challenge.

3.2 Analysis of general conditions and assumptions

The important assumptions which had been made at the planning stage are considered to have been justified and realistic at that time. Naturally they have been the base for the development of the operational plan. Yet many of these assumptions did not materialize as expected (cf. table 3.2 which was assessed by NETWAS staff). It is not the point here to discuss why these assumptions did not materialize, but to understand how the project has adjusted itself to the changing conditions and what the consequences are.

table 3.2

	Comments
Overall goal 01 Long term political stability in NETWAS countries of operations Favourable policy environment to CB-WSS	Political stability in Sudan has not been fulfilled. Policy environment in Kenya has grown favourably.
01 Favourable political climate in NETWAS countries of operation Favourable policy environment to CB-WSS	

01 There is cooperation from the sector 　Presence of donor funds 　PROWWESS makes participatory trainer available 02 Cooperation of participating agencies 　NETWAS staff stability 　Continued donor support 　Security situation assured (Ethiopia & Sudan) 　ITN coordination is strengthened 03 Institutions have the needed major equipment 04 Funds exist ! 05 Demand remains after services are to be paid for 　Aid agencies are free to choose consultants 06 No major reduction in Government resource 　allocation to collaborating institutions	Cooperation in the sector has been good Donor funds have lacked in Tanzania, Kenya and Ethiopia PROWWESS trainer was available NETWAS staff stability has continued Ethiopia has moved from central government to regional government, making contacts difficult ITN coordination has not been strengthened. Funding in Tanzania and Kenya has not been secured Ethiopia office funds are being sought Demand for paid services look promising. As two full paid up courses (Namibia & Tanzania) were conducted. Management for sustainability course, a joint venture with IRC, if fully paid course. Applications show that demand exists. Government resource allocation has not increased.
Activity 01 There is cooperation from the sector 　Presence of donor funds 　Favourable political climate 02 Adequate staffing 　Communication systems functioning (affordable) 　PROWWESS makes participatory trainer available 　Material/facility safety ensured 　Political stability 03 Institutions can develop financially acceptable 　proposals 　Suitable journal exists 　Institutions can provide academic supervision 　Institutions have the needed major equipment 04 Funds are available for country activities 05 Demand remains after services have to be paid for 　Aid agencies are free to choose consultants 06 ITN coordination is strengthened 07 Cooperation of participating agencies 08 NETWAS staff stability remains 　Continued donor support 　Security assured 　Favourable currency exchange rates maintained 09 Easy international travel	Travel to Sudan is very difficult Cooperation has been good Donor funds have lacked in Tanzania and Kenya Communication - E-mail has been added PROWWESS trainer has been available Political situation in Sudan has made travel to the Sudan almost impossible Currency rates fluctuated, but had little effect on our operations.

Many of the assumptions did not change all of a sudden, i.e. the coordination by ITN/WB gradually faded away, there was no clear communication of information. In the case of Ethiopia, key persons in the relevant ministries with which close contacts had been established were only removed from their positions recently and in the case of Sudan the working conditions worsened gradually etc. This probably explains why the ever-changing conditions have never been systematically taken into consideration during a replanning exercise. This non-reactive situation led to a lack of orientation and to crisis management, especially at the level of promotion and building up of CBWSS reference centres in the various countries. (When trying to understand the position of UNDP/WP towards ITN this lack of orientation also seems to reflect the situation at that level).

3.3   Consideration of basic principles

The basic principle of orientation towards grass roots level has been considered from the beginning. This aspect has even been deepened during the implementation process, in particular through the inputs by RWSG = PROWWESS, Rose Lidonde, which is highly commended. Two aspects, however, have not sufficiently been considered.

a)   Demand Orientation

Lack of consideration of demand is already reflected in the financing concept of NETWAS which follows traditional budgeting. Enterprise-like thinking by the management is mostly lacking. Even more important services are mostly not provided by reacting to an expressed demand. This is partly understandable in the case of information dissemination and documentation, where a demand has first to be created through promotion. Nevertheless marketing strategies need to be developed and applied to create a market, awarenesss, so that services would only be provided on a clearly expressed demand. Only this approach will ensure acceptance and sustainability of inputs and increase the potential for willingness to pay (WTP) for services.

b)   Balanced development

It is a well-known and accepted fact that an impact of the project's overall goal can only be achieved on a sustained base through balanced development. Use of drinking water, disposal of liquid and solid waste and hygiene behaviour of the population are all part of the sociocultural and natural context. A strategy of balanced development has to take into account these important contextual conditions by considering social, institutional, economic and technical components as well as the one dealing with "knowledge and norms". The NETWAS project already considers most of these aspects, although with different degrees of attention. Especially economic aspects and partly also existing "knowledge and norms" are not sufficiently considered. In the same way "gender balanced development" has to be given greater attention, which means that project activities should be beneficial to both men and women and should have no negative effect on prevailing gender relations.

18

3.4   Target Groups

Following the logic of the problem analysis and the selected objectives the target groups have been named and it was decided how they should be approached and supported. A summary of the actual situation is provided below.

Table 3.4 Target Group/Approach

Target Group	Approach
Policy and decision-makers which means mainly managers in the regions and headquarters plus to a lesser extent directors of relevant departments.	Since this level is probably not a target group in the real sense, but more an important participating discussion partner, this group is involved in NETWAS' advisory board, workshops and ad-hoc meetings etc.
Universities: (department of engineering), established schools and training institutes and colleges active in the sector of water and sanitation, including public health officers, technicians etc.	Training of trainers through training courses, seminars, practical implementation (on-the-job), provision of teaching aids, modules, syllabuses, all inputs on hard-and software.
Information and documentation centres, libraries etc. involved in the sector water and sanitation.	Training and advice to librarians, assistance in building up an essential library on water and sanitation, provision of information on updates and the like.
Implementing NGOs and government institutions.	Provision of backstopping in the form of training, manuals, guidelines, technical advice.
End-users, grass roots level but in general no direct links.	Through demonstration (learning) projects only in collaboration with a project implementing institution for a limited period at a few selected sites (cf. chapter 5.3).

The selected target groups are certainly those in need of the provided services , yet the above recommended need - and market - assessment will have to confirm this selection and in particular provide information about the priorities. In any case the assessment of the inputs on the above target groups revealed that NETWAS' activities had significant positive effects on the approached representative of all target groups (cf. chap. 5).   Additional interested parties (customers) in NETWAS services could be professional association, women-NGOs (i.e. YWCA).

3.5　Objectives

The objectives of ITN as agreed in 1991 at the third ITN African Region Meeting do correspond with the declared objectives of NETWAS (cf. annex 5). These objectives do obviously correspond with the problem analysis and project identification. NETWAS still stands very clearly behind those objectives while at other levels (SDC, ITN/WB) certain reservations seem to exist. Depending on the results of the above recommended need and market assessments, the objectives may require adjustments.

3.6　Relevance of selected strategy

The overall strategy and approach to reinforce existing bodies (policy makers, managers, training institutions, implementing NGOs and government institutions, documentation centres) and work through them, and not directly with the end- users, is certainly relevant for the achievement of the selected objectives. (This strategy is named institutional approach.) NETWAS has interpreted this strategy after an initial promotion phase in a rather reactive way. This may have been partly caused by the limited capacity in manpower. At a first glance a more aggressive strategy would have been expected (i.e. NETWAS services are not marketed and no significant efforts have been made to house PALNET (Participative Learning Network) within NETWAS). Yet the results and effects achieved indicate that the soft approach seems to work. The involvement of key persons in NETWAS' advisory board is not only beneficial to NETWAS (control by market forces), but is also important to establish links and even identification with NETWAS' objectives by directors of government departments and managers. **The message of CBWSS trickles through!** This fact was confirmed during various interviews.

The failure in establishing country reference centres was caused by various factors such as changes in the assumed prevailing conditions, lack of funds, deficiencies in replanning and in developing new concepts (cf. chap. 3.2). Also the strategy of working broadly on all planned outputs at the same time led to overloaded work schedules and did not allow the creative development of new solutions appropriate to the changing situation.

The present strategy is not geared towards demand orientation. It also does not sufficiently consider the basic principle of balanced development (cf. chapter 3.3).

It can be concluded that the overall strategy is relevant, yet in its application it needs to be improved by considering the above basic principles as well as become more focused.

3.7   Project outputs

The expected project outputs have been clearly defined in the project planning matrix (PPM) together with their objectively verifiable indicators. In chapter 5 the achievements are assessed and evaluated for efficiency, effectiveness and impact. During project implementation the achievements have been regularly assessed and recommendations for adjustments and improvements were developed together with the backstopping institution IC (cf. monitoring mission reports). Yet the objectively verifiable indicators were not strictly applied, therefore no analysis was made of any shortcomings and neither were adjustments made to set targets. The NETWAS team tried its level best to meet the set target, but this was mostly beyond their possibilities. The heavy workload, together with a limited number of personnel and everchanging general conditions did not allow for more achievements. Even the advice provided by the backstopper (IC) could rarely be realized. The number of professional staff has been maintained over the past five years. Despite available financial means no efforts were made by NETWAS management to adjust the number of staff to the increased need. This should be seen in conjunction with the shortcomings in replanning and adjusting the project by considering the everchanging previous project assumptions (already discussed in chapter 3.2.).

In conclusion it can be stated that despite the fact that the project could not meet all planned results to the full extent according to PPM, immense efforts have been made and many results with regard to documentation centres, training etc.have been achieved which correspond to an obvious need and contribute towards the set objectives. Yet what is missing is a clear concept to achieve effects on a sustainable base (for detailed analysis cf. chapter 5).

3.8   Activities

The activities required to achieve the planned results have been described in the PPM. An adjustment was made by mid-1993. All activities have been attended to. How far they contributed to the achievement of the various results is discussed in chapter 5. However, what has been mentioned regarding results in chapter 3.7 holds similarly true for the performance of activities.

4. THE MAIN ACTORS IN THE PROGRAMME AND THEIR MUTUAL RELATIONSHIP WITH EMPHASIS ON NETWAS' EXTERNAL COLLABORATION

4.1 NETWAS' knowledge system (NKS)

NETWAS' knowledge system was developed jointly by NETWAS and the evaluation team to gain a quick project overview, to understand the links and relationships and also to identify areas of communication strengths and weaknesses, of transferring and disseminating knowledge (cf. graph 4.1). NKS proved to be very helpful throughout the evaluation process. A summary of the working technique used to develop knowledge systems can be seen in annex 21.

When looking at the NKS it becomes obvious that NETWAS depends on too many "bosses" in the form of NETWAS advisory board, AMREF, ITN and donors. The complexity of the entire system also indicates and reveals the ambitious setting into which NETWAS has been placed. This becomes even more complicated if it is considered that the boxes below NETWAS each deal with NETWAS partners in three to six countries (for obvious reasons of clarity and space this could not be shown on this table). The NKS also shows the intensity of interactions, which are naturally highest in Kenya, followed by Tanzania and Uganda. Unfortunately the country programmes both in Kenya and Tanzania are without funding at this stage. The rating of interactions shown to be the highest was towards 7 (government institutions), followed by 8 (NGOs), 9 (community training) and 10 (community demonstration project implementation).

Although the network consists of institutions and organizations, the reality is that people matter in the first instance. This is understandable especially when considering that the network is still in an immature stage. Fortunately all present NETWAS staff has a high capacity and capability for networking. This fact of high acceptance of NETWAS and its personalities could be observed throughout the evaluation mission.

Graph 4.1 represents the NKS and shows the main actors in the programme and their mutual relationships. Interactions are outlined according to the figures in annex 10.

table 4.1

NETWAS KNOWLEDGE SYSTEM
(PARTICIPATION ANALYSIS)

DONORS

SIDA	Donors for Small Projects
DANIDA	
SDC Infraconsult	SIMAVI GTZ

RESOURCE CENTRES

IRC •••	UNDP/ ••• WORLDBANK
UNICEF ••	IRCWD ••
AIT ••	WASH •
WHO •	SKAT ••
WaterAid •	UNEP •
WEDC •	

NETWAS ADVISORY BOARD

GOVERNMENT POLICY / DECISION MAKERS

AMREF

6 4 1 2 5 11 7 2 3 8 9 10

MOW	Training Institutions Health	MOH
□ ||||	□ ||||	□ ||||
○ |||	○ |||	○ |||
◇ ||	◇ ||	◇ ||
▨		■ ||	■ ||
● |||	● ||||	● ||||
◆			

Universities	Training Institutions Water
□ |||	□ ||||
○ ||	○	
◇		◇	
▨ ||	■	
● |||	● ||

Care Kenya International (K) □	Red Cross Local (K) □
KWAHO (K) □□□	UNICEF (E) ◇
UNICEF (K) □□	UNICEF (Eritrea) ◆
Catholic Secretariat □	International Red Cross □
IFRCC ●	World Vision ○
BKH □	CPK Nakuru - Kenya □
KNLS □	Eritrean Women Association

KEY

□	KENYA
○	UGANDA
◇	ETHIOPIA
▨	SUDAN
●	TANZANIA
◆	ERITREA

COMMUNITIES TRAINING

ETHIOPIA ◇	KENYA □	TANZANIA ●
Akal Gondar Awassa	Mambrui Maranga Maseno Kangema Muranga Mazeras Mukotlo	Machame Mpwapwa Masasi Mto wa mbu Moshi Ukerewe Bujora Chatu
UGANDA ○		
Mukono Jinja	SUDAN ▨	
	Wad El Magboul Earth Sciences	

COMMUNITIES PROJECT IMPLEMENTATION Components

Gelegele □□ ++	Nyamware-Kionyo ++ □□
Ruwasa ○ +	SWIP ○ +
Hesawa ● +	CCT ● +
TRC Singida + ●	

23

4.2 Relations with ITN - UNDP/WB/Headquarters and RWSG

4.2.1 Findings

a) ITN-UNDP/WB Headquarters

From the beginning of the ITN centres, UNDP/WB's headquarters' intention was to support the ITN centres in various ways such as training modules, support in fundraising, promotion of the WB programmes and collaboration in the development of appropriate technologies and approaches. Up to May 1993 an ITN coordinator was operating from the HQ as global coordinator. He provided useful assistance such as organizing ITN Africa meetings on various occasions. This global coordination was discontinued after May 1993. In the same way the audiovisual modules were given up and the remaining copies were given away free of charge. Recently ITN regional centres were merely used to distribute documents and direct contacts remained only sporadic. This fading out of support services by WB's HQ does not, according to statements by their staff, mean that the idea and objectives of the ITN concept have been given up. The approach consisting of central coordination, however, was questioned and the results of the evaluation of the various ITN centres are awaited before a decision on future strategies is taken. Obviously those intentions could not be made transparent to other levels of the ITN operation and the waiting attitude by WB HQ has been interpreted as lack of conceptualization, which again led to uncertainty about where to go. (The above analysis should be treated with caution since it lacks in-depth studies, but it describes the feelings at regional level).

b) RWSG at regional level

The RWSG at regional level has been supportive in two ways:

- Rose Lidonde has been seconded to NETWAS as an experienced trainer on participatory methods (PROWWESS)

- Moral support has been given in the form of providing an open ear and promoting NETWAS at donor level etc.

Both supports are highly appreciated by NETWAS. A proposal is on the way for the seconding to NETWAS of a second trainer with similar qualifications. Despite the appreciated collaboration some communication shortcomings seem to exist, e.g. the idea of housing PALNET at NETWAS is welcomed by both RWSG and NETWAS, yet both are awaiting an initiative from the other side.

On the other hand, RWSG has not been able to identify or promote donor institutions other than SDC to support the building up of country reference centres.

4.2.2 Efficiency/Effectiveness

Considering its limited means, NETWAS has invested in the collaboration with the WB's HQ and the achieved results, although limited, are reasonably efficient at this level. The lack of

a clearly-expressed strategy and concept also contributed at a regional level to a lacking orientation towards focused results. Although this has not been the only cause, it contributed to a lower effectiveness in the realization of the regional network.

The RWSG's contribution not only increased the efficiency of NETWAS' services, but even more so its effectiveness. The services of Rose Lidonde contribute substantially to enhancing the scope of NETWAS, and if in future PALNET can be housed within NETWAS, this will provide the required balance to NETWAS' capacity which has already been established in the technical field. This will certainly secure the effectiveness of NETWAS in future.

4.2.3 Relevance/Impact

WB's HQ intentions at the outset of the programme still seem relevant, if they are developed and disseminated according to an effective approach.

RWSG's contributions are obviously contributing towards an increased chance that NETWAS services will provide a lasting impact.

4.3 ITN - Africa Network
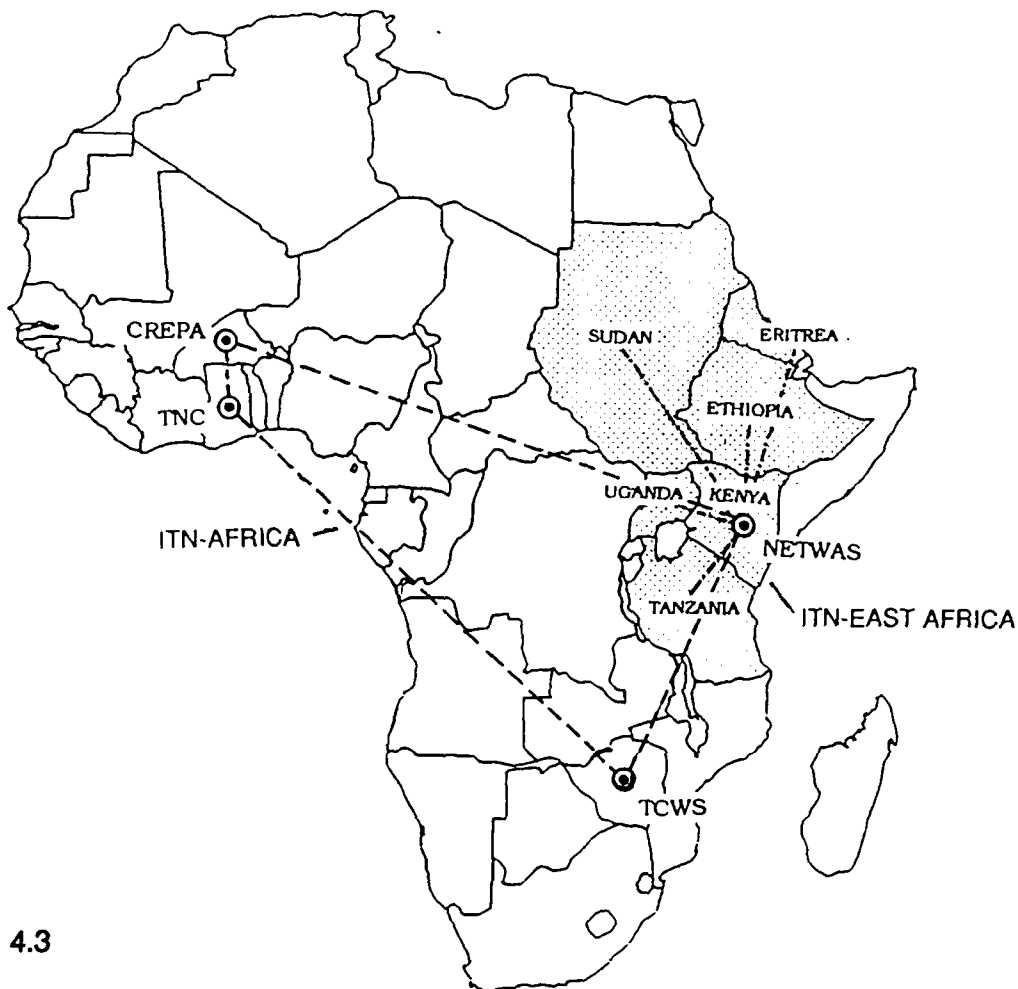
table 4.3

4.3.1 Findings

There are presently four main ITN centres in Africa. They are the following:

- NETWAS - Kenya, Tanzania, Uganda, Sudan, Ethiopia, Eritrea
  Network for Water and Sanitation, AMREF, Nairobi
- CREPA - 13 Francophone West African countries
  Centre regional pour l'eau potable et l'assainissement à faible coût, Ouagadougou.
- TCWS - Zimbabwe
  Training Centre for Water and Sanitation
  allied to the University of Zimbabwe
- TNC - Ghana
  Training Network Centre
  University of Science and Technology, Kumasi

Two of these centres (CREPA and NETWAS) are supported by SDC. Communication among all centres is maintained through annual ITN Africa meetings which have been held since 1989. The first two meetings were small gatherings with ample time for direct exchange of views amongst the centre managers. The third and fourth Meetings were prepared by the UNDP - World Bank Programme and were attended by a large audience (donors, water authorities). They served as a forum on new trends promoted by the programme.

The fifth meeting was organized in December 1993 in Naivasha, Kenya by NETWAS with the assistance of RWSG. The main issues discussed were sustainability, institutional issues of ITN and collaboration amongst centres. Two models, the institutional development model and the bypassing model, were elaborated. Coordination was anticipated in the exchange of experiences and information as well as in conceptual orientation. Yet the most visible output of coordination, the ITN Africa meetings, have not yet enabled the exchange of experiences and they thus hardly had any impact after the meeting (conclusions drawn by Daniel Gubler in his ITN Africa Meetings Report, cf. annex 2).

4.3.2 Efficiency/Effectiveness

Although the conclusions of the above report suggest that the results of the information exchange during those meetings were very limited, the effectiveness of this exchange still needs to be carefully monitored. At times informal discussions alongside meetings have a greater effect than the formal meetings.

4.3.3 Relevance/Impact

Whether this type of meetings is relevant for the purpose of conceptual orientation and exchange of experiences and information should be monitored and analyzed. Different forms of seminars or other means could of course be more relevant. The intentions behind these seminars are certainly essential.

4.4 ITN - East Africa Network

4.4.1 Findings

NETWAS has established contacts in six East African countries. According to the project's objective it has tried to build up national reference centres (NRCs). The actual situation in the region and in the countries can be seen in the following.

- **Regional:** Funding ensured by SDC up to September 1994.

- **Kenya:** Kenya was funded by GTZ up to December 1991. Despite submission of project proposals and resubmission no funds have been reallocated to date. Yet NETWAS maintains activities in Kenya through its regional service capacity.

- **Uganda:** AMREF (Uganda Environmental Health Unit (EHU), sometimes referred to as NETWAS/Uganda), is clearly distinct from NETWAS. It reports to the director of AMREF and not to the head of NETWAS, and is funded by DANIDA without any direct links to ITN. NETWAS provides backstopping on a voluntary basis. EHU/Uganda has a close relationship with the Ministry of Health, which makes it difficult to collaborate efficiently with the Ministry of Water.

- **Tanzania:** After initial financial support by SDC in funding a NETWAS representative, no donor could be found to fund activities in Tanzania. This means NETWAS is at present only able to maintain the achievements made so far.

- **Ethiopia:** Contacts have been established to relevant training institutions as well as to key persons in the ministries concerned. Unfortunately these valuable key persons have recently retired from their positions. Nevertheless a promising contact has also been established with CRDA, the NGO-coordination institution to which all important NGOs active in Ethiopia are members. CRDA also maintains a water and sanitation coordinator, who provides similar services to its member NGOs as NETWAS does elsewhere. CRDA does not work with government institutions. Since the demand for a NRC has been expressed by various training institutions as well as by the above key person, a project proposal is about to be drawn up by NETWAS, local key persons and in collaboration with CRDA.

- **Sudan:** In Sudan several institutions/organizations have been collaborating with NETWAS. Some of these could easily become reference centres. Some of these are: Department of Civil Engineering, University of Khartoum, National Rural Water Corporation and Faculty of Environmental Health, University of Khartoum. Further analysis of these institutions needs to be done in order to establish which one could become a reference centre. Unfortunately the present political situation does not permit an efficient collaboration.

- **Eritrea:** Two visits were made to Eritrea by NETWAS, the purpose of which was to establish the sort of training and other assistance which could be extended there. The country is in a transition period and the officers need more time to settle down. The Water Development Department seemed to be a good focal point, but more work will need to be done for the department to become an effective centre.

In summary it can be concluded that in none of the above countries could any institution be built up or upgraded to a NRC. This has been partly caused by unfavourable prevailing conditions (Ethiopia, Sudan) or lack of funding (Tanzania, Kenya) as well as by the absence of a clear concept and approach, as concluded in chapter 3.2.

4.4.2 Efficiency/Effectiveness

Although the set targets could not be achieved, this was not because of inefficiency in implementation, but rather because of inefficient planning caused by limited experience with the available planning tool (PPM), lack of initiative to adapt to the everchanging general conditions and project assumptions. Yet it would be incorrect to only put the blame on the project team which has done an excellent job in other sectors such as training, documentation and information dissemination (see chap. 5). The limited commitment by ITN and donors (except for SDC) did not allow NETWAS to become more effective.

4.4.3 Relevance/Impact

The regional network is relevant, can be effective and have an impact, if it is built on a realistic concept as recommended in chap. 7.2.1.

4.5 Donors

4.5.1 Findings

As it has already been shown in chapter 4.4, it is only SDC who has continuously contributed to ITN activities in the East African region. Indirectly DANIDA has supported some activities in Uganda, but a clear commitment is lacking by other donors. Unfortunately only one major potential donor (SIDA), besides SDC, could be contacted during the evaluation. This visit revealed that the lacking commitment is not caused by disinterest or by condemnation of the ITN idea, but rather by lack of adequate information, which again is connected to the lack of a clear concept.

4.5.2 Efficiency/Effectiveness

Donor coordination, if any has at all taken place, has not been effective.

SDC's engagement enabled activities by NETWAS as ITN regional centre which have been efficiently implemented and their effects in reaching set objectives can be observed in many instances (cf. chapt.5).

Higher efficiency, effectiveness and even impact could be achieved with a clear concept and appropriate strategy.

28

4.6 Resource Centres

4.6.1 Findings

Resource centres provide useful assistance and support not only to NETWAS, but also through NETWAS' channels to their partner organizations. This assistance consists of the following :

- Human resources and expertise
- Training through courses, workshops etc.
- Information documentation
- Technical advice
- Collaboration in course organization

Some of these interactions are quite intensive. AIT, for instance, is considered as a useful information centre and NETWAS also made use of their training capacity for documentatalists. IRCWD assists in the coordination of R & D activities, especially in the area of solid waste management. IRC again is an important collaborating partner in issues such as training.

4.6.2 Efficiency/Effectiveness

These interactions are considered to be very useful since they provide not only access to broad information, experiences and expertise, but also possibilities for NETWAS to upgrade its knowledge. Moreover, the collaboration with internationally recognized institutions lifts the profile and recognition of NETWAS in the region. This means that NETWAS' messages are taken more seriously into account.

4.7 Infraconsult (IC) - the backstopping institution

4.7.1 Findings

The monitoring missions of NETWAS are implemented by IC. Twice yearly the achievements and activities are carefully reviewed and adjustments made accordingly.

The backstopping approach is well-tempered: it is not too directive and respects the autonomy of NETWAS, it also does not provide ready-made recipes, but allows for development of creativity. The collaboration is smooth.

4.7.2 Efficiency/Effectiveness

NETWAS considers the monitoring assistance as being very useful, both in forcing reflection as well as providing with another chance to learn. This evaluation is shared by the evaluation team, yet probably more flexible planning methods need to be applied in future so as to efficiently attend to the everchanging general conditions also on the level of outputs, strategies and concepts (cf. chap. 3.2.).

29

4.8 Governments, Policy / Decision-makers

4.8.1 Findings

Interactions with this group took place mainly at the level of managers in the regions and at headquarters, plus to a lesser extent with the directors of the relevant departments. This group is not a target group in the real sense but more an important participating and discussion partner. Representatives of this groups are also members of the advisory board. Occasionally decision-makers have been invited to NETWAS functions or seminars/workshops etc. as well as the other way round. The NETWAS approach has been soft and more on a participatory level.

4.8.2 Efficiency/Effectiveness

Positive effects of the above approach have already become visible. In Kenya, where community-based approaches had been neglected by the relevant sector Ministry, the Water Master Plan and 5-year Development Plan (94-98), which have now been finalized, surprisingly but very appreciably emphasise community-based approaches.

4.8.3 Relevance/Impact

Since the decisions of the above groups of people have a great impact on the country policy, it is certainly relevant to interact with this group using a reasonable approach.

4.9 Government Institutions and NGOs

Interaction with these groups are the most intensive since they are the main target groups, the intermediators, the trainers who are trained and who are supposed to carry the messages and benefits to the end-users. Since these target groups and the services NETWAS provides them are extensively discussed in chapter 5 this issue is not elaborated further here.

4.10 Community Training and Community Demonstration Project Implementation

Direct community training is occasionally done, but mainly in connection with a practical training programme.

Demonstration projects are implemented for on-the-job training purposes as well as for the NETWAS staff so that they do not lose contact with the grass roots level. This interaction will ensure that NETWAS teaches and promotes the right solutions and approaches. For further elaborations on this aspect see chapter 5.

5. EVALUATION OF IMPLEMENTATION

The actual progress report by NETWAS (annex 6) has been reviewed, taking into consideration the findings made during the field surveys in Uganda and Kenya by Julia Kunguru (annex 7), in Tanzania by Vivian Bashemererwa (annex 8) and in Ethiopia by the entire evaluation team. In addition various institutions including government departments, training institutions and NGOs based in Nairobi (cf. annex 4) were interviewed and numerous discussions were held with NETWAS staff both as an assembled team as well as individually. Naturally this analysis could not be made exhaustive, but where possible representative samples were studied in more detail.

5.1   Human Resources Development

HRD has been assessed and evaluated separately for each level of the different actors involved. Training needs as well as training which is or may be provided by NETWAS were investigated at the same time. A comprehensive assessment of HRD requirements at all levels, however, goes beyond the scope of this evaluation. The aim of this assessment is to get an overview and an understanding about the magnitude of requirements and to suggest ways and means in which the HRD requirements can be approached and met in future.

5.1.1   Findings and Assessment

A. NETWAS

The activities carried out by NETWAS should be a reflection on its own human resources capacity. NETWAS has few but well qualified staff with an average working experience of 16, years and 6 years in NETWAS. 15 NETWAS staff make up 2.3% of the total AMREF staff and include 7 professionals, 4 technicians and 4 administrative staff. The distribution of this staff over 9 years shows a minimal increase. Of the professional staff 3 are civil and/or public health engineers, 3 information officers, and 1 a social scientist. The qualifications of these professionals are summarized below:

Qualifications	Number
• B. Sc. Civil engineering	3
• B. Sc. Environmental Biology	1
• B. A. Social Sciences	2
• Certificate in computer science	1
Other qualifications : • M. Sc. Water Resources Engineering (specialising in wells) • M. Sc. Civil Engineering - Public Health Engineer • M. Sc. Water Supply+Sanitation - Public Health Engineer • M. Sc. Environmental Health • M. Sc. Library and Information Science	1 1 1 1 1

NETWAS staff HRD (training and upgrading) cf annex 13

NETWAS staff has undergone with different intensity various training courses. The technical staff has not improved its technical skills, but has attended workshops on Participatory Methodology Training (PROWWESS) conducted by UNDP/WP - RWSG, a course by IRC on Management for Sustainability and the AGUASAN Workshop on Monitoring and Evaluation. One of the documentalists has undertaken a course on information technology and computerized library services at AIT Bangkok; another is about to undertake a similar training. All staff members have continuously upgraded their computer skills.

Decisions about training have been taken more or less on an ad hoc basis. This is not surprising, since a systematic HRD plan for NETWAS staff does not exist. Yet, NETWAS staff is aware about some of its training needs, such as in communication, ZOPP methodology, etc., but other disciplines are overlooked, i.e. institution building, etc. A high continuity of staff, both in number and persons is observed within NETWAS (cf. table 5.1.1 A1 and annex 12).

table 5.1.1 A1

NETWAS Staff 1986-1994

Professional Staff   Technicians   Admin. Support
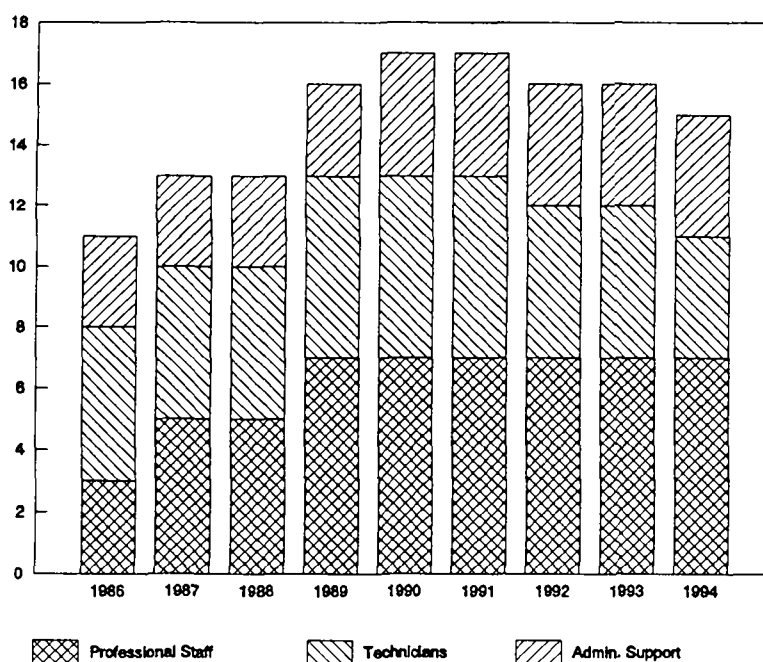
Job descriptions / jobs effectively implemented

Job descriptions have been developed for each position within NETWAS. They are not completely coherent with the actual tasks implemented by the various staff members. They have been neither revised, nor are they strictly applied. In order to get an idea about the time ratios spent on the different current and ideal future activities, NETWAS staff has been requested to provide relevant figures. Table 5.1.1 A2 below indicates the activities and time budgets of some of NETWAS' professionals. In the absence of daily time sheets the figures are only rough estimates.

Table 5.1.1 A2

Activity	Percentage Time			
	Current		Ideal	
	Thuku	Oenga	Thuku	Oenga
Advisory Services	-	-	10	10
Construction Training	60	60	40	40
Participatory Training	20	5	15	10
Demonstration Projects	-	20	5	10
Staff Training Development	3	5	10	10
Other Training Activities (supervision)	10	-	5	5
Research work	5	-	5	5
Documentation	2	-	5	5
Self improvement	-	-	5	5
	Riunge	Munano	Riunge	Munano
Information Networking	15	12	20	15
Information Training	20	3	30	30
Advisory services	20	-	10	10
Info. Documentation Process	20	40	10	15
User services	5	14	10	10
Administration	-	20	5	5
Acquisition	-	4	5	5
Promotion and liaison with others	20	-	5	5
Self Improvement	-	2	5	5

The staff is largely engaged in training (theory and practical) and advisory services. There is also an exchange of knowledge especially amongst the technical staff. Few are engaged in research. The ideal situation indicates that the technical staff is overloaded; while the information sector needs to give more time to information training and networking. The differences in the two sections may be because the information section has 3 professionals who can assist each other and there are established libraries in which some of the librarians have been trained by NETWAS and can carry on the jobs. In the technical sections, e.g. demonstration projects, the research is done by one officer, indicating a need to increase and improve staff in NETWAS sections.

Annex 14 provides various tables with comprehensive information about NETWAS', respectively EHU's training activities.

Comparison of qualification of staff with their job descriptions, respectively job requirements, to meet NETWAS' HRD needs

This comparison is expected to provide information about HRD needs within NETWAS. In the absence of updated job descriptions, this comparison could not be done comprehensively and exhaustively at this stage. This has also to be seen in context with the missing market analysis and therefore the unclear needs and requirements of the market, i.e. the NETWAS clients.

From a rather superficial analysis NETWAS' HRD and training needs seem to be as follows:

Of the professional staff Dan Makerere, Theresa Riunge, Isaac Oenga, James Thuku and Rose Lidonde are trainers. In order to improve efficiency and improve their marketability in their professions and as trainers they require training in communication skills, ZOPP and other participatory methodologies, institution- building, and a master's course for Ms. Lidonde. Gilbert Muhanji is already being trained as Library Assistant at the Kenya Polytechnic. Mary Munano is expected to attend a short course in Belgium.

B. TARGET GROUPS / CLIENTS

Government Ministries and Institutions

The institutions/organizations with whom NETWAS collaborates are illustrated in fig. 4.1 (NETWAS knowledge systems). It collaborates with the ministries of water and health and training institutions within those ministries and with the Universities in Kenya, Uganda, Ethiopia, Sudan, Tanzania and Eritrea. NETWAS has been more active in Kenya, Tanzania and Uganda than in Ethiopia and Sudan. This may be because of ease of accessibility as Sudan and Ethiopia were at war. It has had more contact with universities and training institutions in Kenya and Tanzania probably for the same reasons as above. NETWAS has also collaborated with donors, NGOs, communities, resource centres and ITN centres.

The role NETWAS has played in these ministries and institutions can be summarized as *capacity-building, information exchange, networking and provision of skills and materials,* consultancies and advisory services.

Training

NETWAS conducted training activities by way of workshops and seminars (annex 14 provides tables on training). Both theoretical and practical training is given to participants. Exchange of experiences occured as NETWAS attended workshops/ seminars conducted by other institutions. A total of 104 workshops/ seminars were conducted between 1985 and 1994 and attended by about 1319 participants: that is an average attendance of 13 participants per seminar. Participants were librarians, medical/clinical officers, trainers, policy-makers and researchers.

34

NETWAS has sponsored three candidates for post-graduate courses as follows:

Course	Present Pos.	Institution
M.Sc. Public Health	Lecturer	Mbale School of Hygiene, Uganda
M.Sc. Public Health Engineering	Lecturer	Dept. of Civil Engineering Makerere University, Uganda
M.Sc. Public Health Engineering (to be completed July 94)	Lecturer	Water Institute, Kenya

Libraries in the institutions have been promoted through the provision of documents and training of librarians which has led to an improvement in the libraries. Ten training courses have been given since 1985 with an average attendance of 15 participants. Follow up visits were made (12.6 visits per year) to about 44 institutions. The staff of the information and documentation sections has also been very active in visiting these centres and despatching documents to them.

5.1.2 Efficiency

HRD within NETWAS has been quite efficient, expecially since much of the training has been on-the-job. NETWAS can be considered to have been very efficient in the implementation of training activities. This can be attributed to a high discipline and cohesiveness found amongst the staff in NETWAS, as well as to the long experience and commitment of the NETWAS staff. The efficiency could be improved by a comprehensive needs' analysis for HRD in the collaborating institutions and accordingly with improved planning and monitoring.

5.1.3 Effectiveness

HRD within NETWAS has been effective at all levels. Participatory training methodologies are applied in the practical work and participative decision-making processes are practiced within the team. Yet the effectiveness could be significantly improved if NETWAS' HRD were based on well-analyzed needs and if the improved knowledge and know-how were more systematically applied. Shortcomings in management, in particular in monitoring and planning and institution-building, are some of the most obvious ones.

HRD which NETWAS provided to the target groups, respectively clients, has been effective in many instances. In particular the practical on-the-job-training at demonstration projects, or in other cases at the job sites of the trainees, has obviously been very effective. These achievements can be be attributed to the fact that the training has been well tailored to the trainees' obvious needs. The effectiveness of other training still needs to be seen, but its effectiveness will certainly be lower.

5.1.4 Impact

The impact of NETWAS in HRD in the institutions is felt, but may be difficult to measure because there are other actors in the field, such as government ministries and donors who also contribute to the achievements of the sector's goal. HRD developed through training and collaboration has been appreciated and is in demand. For example, training for librarians, and training in participatory methodologies and low cost constructions is in demand by institutions and communities visited during this evaluation. This indicates that NETWAS has had an impact on the sector. NETWAS however has had lower impact on promoting women skills in technical fields. It is noted that the participation of women in workshops improved in the participatory methodology workshop and this can be attributed to the employment of a female specialist in participatory methods.

5.2. Documentation, Information and Communication

5.2.1 Findings

In addition to the assessment of the resources mentioned above, the NETWAS documentation centre at AMREF was visited on several occasions; visitors were interviewed and test enquiries were made directly at the documentation centre. Moreover, an enquiry was made by NETWAS with a questionnaire to the readers of the newsletter and an additional assessment by questionnaires is underway in order to monitor the relevance and usefulness of books and audiovisual material distributed. NETWAS' analysis of the PPM, in particular of the objectively verifiable indicators, shows that most of the set target has been achieved (cf. annexes 6 and 15). Training workshops are behind targets as can be seen from the table below.

table 5.2.1

KEY

—— Training Inst.

—— Follow up visits

········· Training Workshops

—— Average No. of Users
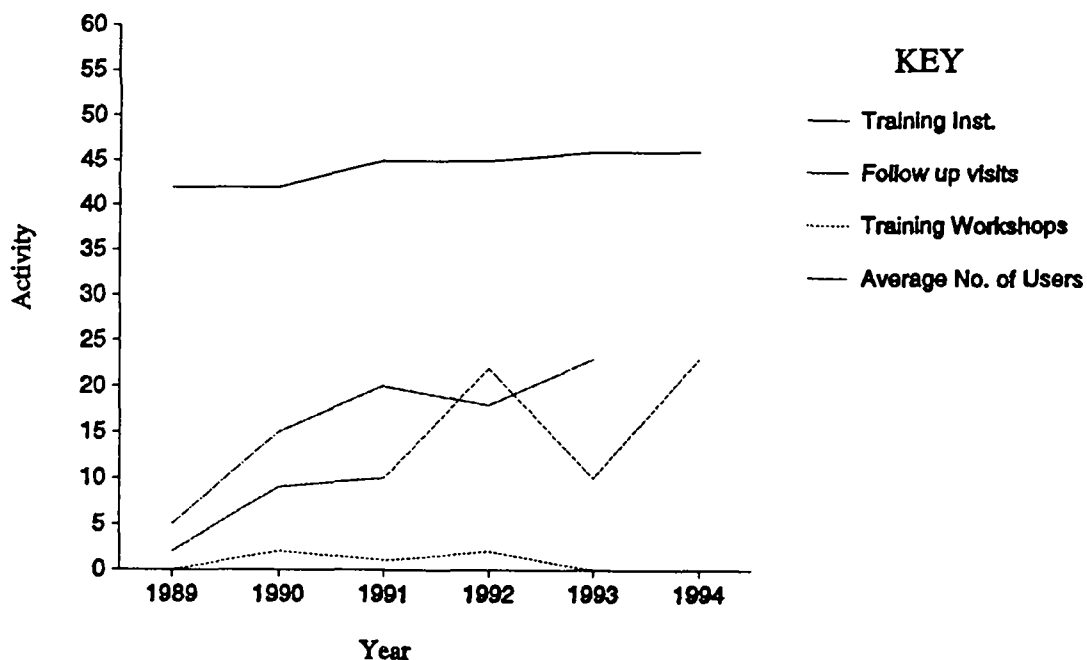
NETWAS' documentation centre at AMREF is not only well maintained, but also very actively frequented as can be seen in table 5.2.1: An average of 4 to 6 people visit the centre every day, of which approximately 40% are students, 30% professionals, 20% from institutions and 10% others. In addition AMREF staff from units other than EHU makes frequent use of the library. The documentation centre comprises well selected books covering the entire sector, yet acquisition of new books is lacking. This seems partly because of limited funds, but probably more so because of inadequate assistance from NETWAS' engineers to make suitable recommendations. Actually new acquisitions are made in a rather passive manner, in that new books are accommodated as they are supplied by various institutions such as IRC, SIDA, WB/ UNDP, WHO, Tampere University etc.. Classification of books is done according to the UDC (Universal Decimal Classification) system. In addition keywords using the Interwater Thesaurus for Community Water Supply and Sanitation are selected by the documentalist, with the the assistance of the engineers, if required. (A reclassification from SATIS to UDC has only been completed with an immense effort. SATIS seems not have been able to make their revised system convincingly known!!) A complete catalogue on NETWAS documentation has just been completed. Essential extracts of periodicals and newspapers are copied on pamphlets and recorded for retrieval from the computerized data bank. Operational instructions and regulations are well-laid down in the "Policy guidelines for the Documentation Centre". To date no records are maintained about institutions, individuals etc. with professional experts in specific subjects of the sector. The documentation and information centre is run by two qualified and one assistant documentalist. Occasionally outside professionals or students are hired to assist in certain activities. All staff have been provided with at least one opportunity to upgrading or refresh their know-how, yet no HRD plan exists for this staff.

Services provided to outside documentation centres and libraries
(list of centres see annex 15) are the following :

- Free books and audiovisuals were distributed to selected libraries and documentation centres. A careful selection of books was done by tutors from various institutions during two workshops (list of books see annex 15).

- Relevant articles are frequently photocopied and distributed to interested institutions, to date mainly in Kenya.

- Twice a year the collaborating documentation centres are informed about updates.

- A newsletter is issued 3 times a year to as many as 1,200 addressees.

- The staffs of collaborating institutions have been instructed and trained in building up and improving their libraries. This introductory assistance has been reinforced by frequent follow-up visits. Yet these activities are provided in a rather sporadic manner; a well-planned and systematic concept is missing.

5.2.2 Efficiency

Comparing the achievements reported and those observed with the means available, it can be concluded that the documentation, information and communication section of NETWAS has been very efficient. A greater discipline in handling books and documents at the centre and a more systematic training approach could probably lead to even higher efficiency (i.e. immediate replacing after use, greater control on the lending of books). The test enquiries by the evaluators revealed an efficient service in a reasonable time and with sufficient quantities (retrieval of the requested information from the data bank, plus search of relevant documentation from the shelves and boxes).

5.2.3 Effectiveness

The continuous high frequency of visitors at the centre is a strong indicator for the high quality of the documentation centre. This fact was confirmed by sample interviews with visitors, who consider this documentation centre to be unique in the sector of water and sanitation within the context of Nairobi. Distribution of books has been highly appreciated by all receiving institutions interviewed not only because of the free supply, but also for its quality and good selection. Probably even more important is that free books have been a door opener for NETWAS services, both for the improvement of the activities of the documentation centres and libraries, as well as for training activities, advisory services and networking.

The selected information provided on photocopies is highly appreciated and found useful. The high quality of NETWAS' information service in general is thought to be attributed to its international links. The feedback on the newsletter, although small in quantity, indicates that it is an effective tool for information dissemination. This was also confirmed during various interviews, where interviewees explained that they got to know about NETWAS' services only via its newsletter.

The test enquiry at the NETWAS documentation centre provided professional answers, consisting of relevant books and even a useful contact address of an experienced expert on a specific topic. The latter was rather unexpected, but NETWAS documentalists obviously know more than what is contained in their data bank.

The libraries of collaborating institutions visited have in general been found well- maintained. Yet at one place the trained staff had already been transferred and the replacement consisted of new inexperienced staff requiring training. At Gondar College of Medical Science the books on water and sanitation were integrated in the voluminous library of the medical department where these books can hardly be found anymore. A separate library needs to be established at the environmental health department so that the books can be effectively used by the sanitarian students.

5.2.4 Impact

Although it is probably too early to speculate about the impact of the documentation, information and communication services, the observations made during field visits indicate that the messages on information are trickling towards the end-user level (end-users are in this case literate people who then act as a vector for the messages).

5.3 Community Based Water Supply and Sanitation (CBWSS) Technology and Approaches

5.3.1 Findings and Assessment

a) Findings

The water supply and sanitation technologies used and promoted by NETWAS are those generally referred to as low-cost and fall within the following categories.

- **Water Supply**

  The preferred option for source works are springs and hand dug wells or, in the absence of groundwater rainwater harvesting. Abstraction from wells is by handpumps while in springs water is generally collected by spring protections from the source. In some cases, however, there are extension pipelines from the spring protection to the users which eases accessibility and increases use of water, therefore improving hygiene. Where such extensions have been made and for rainwater harvesting from roofs, ferrocement storage tanks are promoted and demonstrated.

- **Sanitation**

  For sanitation, the main technology promoted is the VIP latrine using materials which are available and affordable in the different areas. There has been some effort to promote and demonstrate incinerators for solid waste in institutions with the objective of bringing it to community level via training.

- **Approach**

  There is a three-pronged approach in the promotion of the various technologies. At decision-making level, there has been an attempt to sensitize these groups to the need of using technologies that are affordable to users and of involving communities while planning projects. This is done in workshops and seminars where NETWAS is invited or is the host. At institutional level, relevant information on the technologies has been made available. Lecturers and instructors have attended workshops on the practical implementation of these technologies and in some cases, dialogue has been started on revising curricula in favour of these technologies. At grass roots level, the few demonstration projects that are used by NETWAS have the objective of generating a multiplier effect in the implementation of the technologies promoted.

b) Assessment

Generally, the technologies promoted by NETWAS are viable, affordable and replicable by the low income target groups of NETWAS overall goal. In the countries visited, there is some replication taking place starting with institutions and slowly going down to homestead levels.

Because of the different social status, attitudes and practices of the various target groups, it may be necessary to tailor the technology to different areas. In some areas, gravity-piped water might need to be promoted when the source is a protected spring with an adequate quantity. This would represent a widening of the technology scope beyond what is now preferred. This may require a different approach in community management.

The use of demonstration projects to promote technology is very effective, particularly if the target groups identify with the problems to be solved. For the technologies to be easily accepted however, the quality of the facilities should not be in any doubt. As NETWAS does not have control over the quality of construction in the projects, some substandard work which might be associated with NETWAS was noticed. These included a standard VIP latrine with an internal vent pipe (Kibwezi), a ferrocement tank, not promoted as an option only, in an area where there is abundant masonry stone (Gondar), spring protection in areas that are hardly accessible in the rainy season and a VIP latrine in an educational institution where basic hygiene education does not appear to have taken off at all.

The overall assessment of technology and approach, however is that they are correct, accepted and sustainable. Indeed the choices promoted have been adopted or are in the process of being incooperated in the relevant sector policy papers of some of the countries in the region.

5.3.2 Efficiency

The approach that was used by NETWAS in the promotion of the chosen technologies to a large extent depended on the available resources.

Training in the technologies was focused initially on the institutions in the form of workshops and information dissemination, supplemented by field demonstrations only where this was feasible. This reflected a rational use of available resources and has produced the desired results to an acceptable degree.

As noted earlier, a certain amount of replication is occurring in some of the countries. In these countries, however, some form of similar technology existed before. This, however, does not minimise the achievements of NETWAS in these areas as the environmental and technological shortcomings of earlier methods must have been demonstrated before change to the new approaches was adopted.

In the distribution of documentation some problems were previously experienced in terms of actual accessibility by the beneficiaries which would limit the promotion of the chosen technologies. These problems which were mainly internal problems of recipient institutions are still to be resolved with the advice of NETWAS.

5.3.3 Effectiveness

NETWAS' effectiveness in technology and approach can be viewed from three different levels.

At the community level, the effect of the promotion activities varies from country to country. In those countries where inadequate water and sanitation facilities were considered to be a major problem at community level, the technologies promoted have been welcome. In the water sector, this applies to almost all the countries and although replicability may not be seen everywhere, the willingness to be involved in these activities appeared to be present.

For sanitation however, attitudes and practices seem to play a bigger role and the technologies promoted are only effective where communities have a high level of health awareness.

At the institutional level, there seems to be an awareness of the promoted technologies, a desire to have more information and in most cases a multiplier effect that has resulted in institutions taking charge of their own water and sanitation requirements. This, however, is again not the same in each country and it varies from one institution to the other. Most of the key institutions nevertheless are offering community-based water supply and sanitation training on their own and would require more support from NETWAS in carrying out these activities.

NETWAS has not been as effective in promoting inter-institutional information exchange on technology at country level. This in part is caused by division of sector activities among several ministries in the different countries which makes coordination difficult. In countries where an NGO is well-placed with respect to the different ministries, such an NGO plays the role of focal point for CBWSS affairs. This to some extent appears to be the case for CRDA in Ethiopia and definitely for NETWAS at the national level in Kenya! The important indirect effect of NETWAS activities and approach in this respect, however, is that the need to have an information exchange focal point in CBWSS has been recognized and that something may be done about it in due course.

The effectiveness of NETWAS in technology and approach would be improved if a wider spectrum were explored that would consider all technology and approach options depending on the different situations. In parts of Kenya and Uganda, spring protection may not be appropriate or acceptable and improvements on the amenity, sometimes even economic, value would be more appropriate.

Generally, the NETWAS approach has a positive effect on the target groups, varying in degree between countries and social status. It is these variations that need to be reduced by promoting appropriate technologies in the context of a strategy for balanced development (compare chapter 3.3).

5.3.4 Impact

The impact of this project on the overall goal cannot be evaluated using the indicators proposed in the PPM as such indicators are at best estimates and may not in any case be as a sole result of the project. For the present evaluation indirect indicators related to project effectiveness have been used to arrive at the following conclusions :

a) Training in technology and approaches is being carried out in collaborating institutions. The demand for more of this training is increasing in the countries of the region both in the institutions and in other projects. This would imply that the present project has had a good impact in the sector. At the institutional level, technology training is sustainable having been incorporated into the curriculum. At village and project level, however, much will depend on the ability and willingness on the part of the beneficiaries to pay for the training. In some of the countries where CBWSS is part of the sector policy, such training will definitely be continued. So far, the project has promoted self-financing within the

41

collaborating institutions by assisting in the preparation of training proposals for donor financing. It has, however, not actively marketed its own ability to carry out such training. This may partly be due to its own limited human resources.

b) Replication of Activities
Technology and approach activities are to some extent replicated both at the grass roots level and in some projects. The degree is however dependent on the different target groups ability to pay for the technology. The impact of the project in this case will continue to vary. This is because the technologies adopted are in fact the least cost solutions and are at times not the most appropriate as far as acceptability is concerned, which ultimately has an effect on the improvement of health. Until, therefore, a certain level of health awareness is realised - an awareness that would justify extra investment in these facilities - the impact of the project at grass roots level will remain low in some cases.

Generally, however, NETWAS has had a positive impact in its technology and approach strategies.

5.4 Community Based Water Supply and Sanitation (CBWSS) Software Approach

5.4.1 Findings and Assessment

The NETWAS software approach to CBWSS is meant to cut across all the individual activities that go into the realisation of NETWAS' objectives. In this respect NETWAS promotes participatory approaches among all the actors it interacts with including the staff at NETWAS.

Ideally, the approach used by NETWAS facilitates the participation and involvement of communities in planning, implementation and management of W+S facilities that serve them. Choice of technology in particular has been done in a gender-sensitive manner by involving the actual users in decisions affecting what is to be built. Since women and children are generally the water carriers in this region, decisions affecting the transportation of water are mainly made by them. On the other hand, where ability to pay for capital investment is to be established, men would play a prominent role while women decided on operation and maintenance-related issues.

A PROWWESS participatory workshop was held in Kenya and a Participatory Learning Network (PALNET) composed of an informal group of sector NGOs was formed with the secretariat at NETWAS. This group promotes sharing of experiences in software approach and training in CBWSS sector and has widened its scope to include the different approaches used in the country. Three sub-regional PALNETs have been formed with the objective of developing training toolkits adapted to their areas of operation.

A workshop was held in Participatory Hygiene Education Methodologies (PHEM), in collaboration with PALNET/PROWWESS. NETWAS' software training unit has obviously been requested for support from sector projects.

At a country level, Tanzania has formulated a National PROWWESS implementation strategy which has been adopted by the government. This strategy recognises the importance of participatory approaches in all community-based development.

Participatory approaches in software application is being developed and promoted in two main areas:

- Participatory Methodology Training (PMT) :
  This training which is based on SARAR is made up of two courses, one covering training of trainers (TOT) and lasting five days, and the other covering the end-user (target) group and lasting ten days.

  The target groups are government offcials, NGOs and institutions. The outputs are toolkits which contain the developed training materials and workshop reports.

- Participatory Hygiene Education Methodology (PHEM) :
  The objective is to design techniques and tools for the enhancement of sustainable hygiene promotion. The activities are in process and NETWAS is playing a part in this.

43

The software approach of NETWAS has addressed itself more to the organisations that are responsible for grass roots activity than to decision-makers. Where government institutions have been involved, at least at the initial stages, these have been represented by those officers responsible for grass roots action. This approach has been good as awareness has reached more people before finding its way upward to the decision-makers. At present, the need to apply participatory methodologies in CBWSS projects is accepted by almost all the actors. The way to do this, however, is still not clear and NETWAS still has to play its networking role more intensively to clarify this issue among all the actors.

5.4.2 Efficiency

The software approach of NETWAS is mainly promoted in training workshops. The workshops bring together actors from different sectors who deliberate on their experiences on participatory approaches and cope up with ways of solving some of the problems encountered. In the workshops, existing methodologies are presented, discussed and adapted to the particular sociocultural situation of the actors.

The choice of participants representing different sectors has had the effect of spreading the methodologies in the sector as the workshop participants have been in fact trainers in their own right. The efficiency of this activity is therefore high.

5.4.3 Effectiveness

The effectiveness of the approach can be measured by the fact that NETWAS/PROWWESS Tanzania has in fact developed a strategy paper that is approved by the Government. This is not the case in other countries, nevertheless, a kind of replicability could be observed at all places. In Uganda NETWAS carried out training for Rwasa. In Kenya, after the NETWAS/PALNET workshop, Danida began implementing a project based on this approach and facilitated by one of the workshop participants.

Generally therefore the NETWAS software approach is effective, but needs to be enhanced to be in touch with the rapidly changing trends in water management and with the demand for training.

5.4.4 Impact

The impact of the NETWAS software approach is enormous. Although it may not all be as a result of NETWAS efforts in this area, all the countries of the region recognise the need for community involvement in WSS as a mean to sustainability. In some of the countries, the ministries responsible for water supply and sanitation have adopted a strategy of reducing their involvement in rural water supply and sanitation and leaving it entirely to the communities. Urban water supplies are to be managed by municipal councils. In the case of urban areas the peri-urban and informal settlement areas will also require community organisations that can manage water supplies.

Generally therefore the NETWAS approach, having come at a time when it is most needed, has had a positive impact on CBWSS. If it is to continue to have this impact, however, it has continuously to update and strengthen its capacity in these areas.

44

5.5   Institutional Issues

5.5.1   Findings and Assessment

a) NETWAS position in AMREF

The network for Water and Sanitation (NETWAS) for the East African region was established at AMREF in Nairobi in 1986 as the first of the four ITN centres in Africa. AMREF was selected to house NETWAS because of its comparative advantage of already being active in the region and having access to a regional network. Within AMREF, NETWAS is situated in the department of Community Health (compare organogramme in annex 17). Initially the head of NETWAS reported to the head of the Environmental Health Unit (EHU). Later, in 1989, the head of NETWAS became also the head of EHU.

Considering the size of AMREF, NETWAS is insignificant, both with regard to its share of budget and staff (compare table 5.5.1 below). Yet, the training and networking activities of NETWAS are considered to be complementary to AMREF's other activities.

table 5.5.1
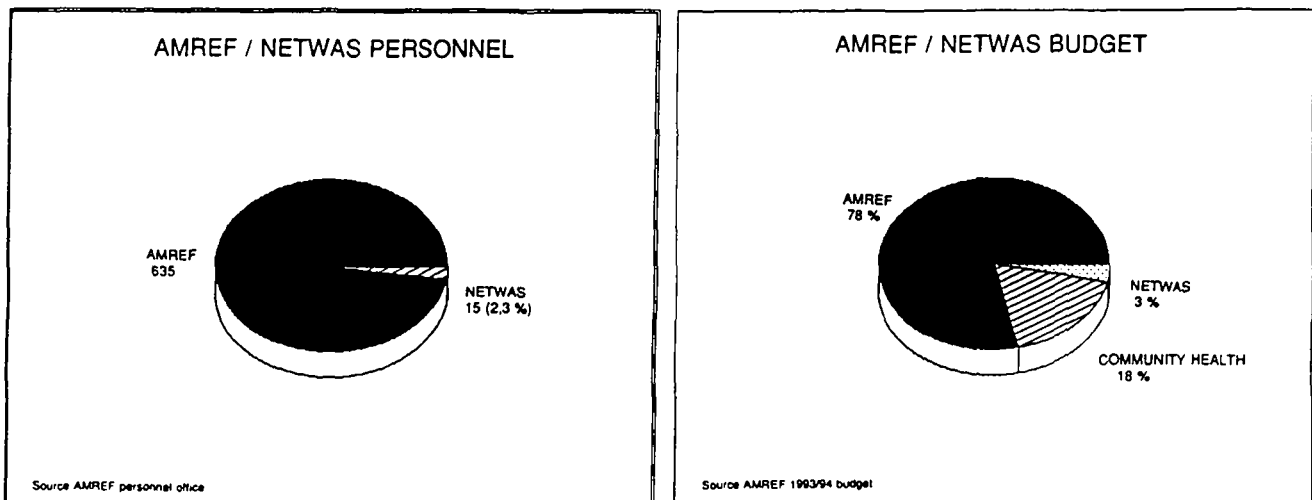
The EHU of AMREF was initially set up to deal with primary health care with WSS being only a component. At present the bulk of EHU's work is for NETWAS with only a small percentage of its time used on general PHC matters. There is a project (Kibwezi PHC) whose water and sanitation component is handled by NETWAS as a demonstration project, but which is independent of NETWAS.

45

b) Operation of NETWAS within AMREF

In its formative stages in 1986, NETWAS benefited a great deal from AMREF's already established status.

Being a regional organization, NETWAS has benefited from a regional outlook and establishment which have enabled it to gain access to the different institutions collaborating with AMREF right from the start. Apart from this, the information dissemination and training aspects of NETWAS are similar to those formerly carried out by AMREF. The co-existence of the two was therefore smooth.

In addition to this, the AMREF support structure has always been available to NETWAS in the form of rules and regulations pertaining staff, accounting and general administration. On the programme side, NETWAS has enjoyed a symbiotic relationship with AMREF in the areas of delineation of responsibility and integrated approach to programming.

Indeed the relationship of NETWAS to AMREF has been such that most of the actors in the sector make very little distinction between the two. Because of this, some NGOs have viewed NETWAS as an implementation arm of AMREF in the WSS sector and in this respect as a competitor. This has discouraged and endangered meaningful networking with such NGOs. To this end, most NGOs and collaborating government institutions in Kenya would prefer to see NETWAS independent of AMREF and performing a networking and advisory role rather than appearing to be involved in grass roots operations. Such NGOs then see NETWAS becoming more a reference centre in sector problems, and charging for services which will be demand driven.

In the view of the above, reservations by most of NETWAS' clients in Kenya in accepting NETWAS as a network separately from AMREF's implementation activities in the WSS sector, different options need to be studied. The aim of these options has to be two-fold :

- Increase of NETWAS' identity and recognition as an independent network
- Decrease the view of NETWAS as being considered a competitor by their potential clients.

In a first step different options were studied with the NETWAS team. The advantages, disadvantages, risks and chances were studied for the following four options :

1) autonomy,
2) elevation to a department within AMREF,
3) liaison with host institutions other than AMREF,
4) retain the status quo.

The result of this NETWAS internal exercise can be seen in annex 17 b. This analysis clearly concluded that option 1, autonomous status, would be a significant advantage in meeting the above two aims. Yet it was considered that this status only could be achieved after a transition period of at least one year.

In a second step the conditional criteria were identified on how competition could be avoided as well as on how higher identity and recognition could be achieved. This was done during a brainstorming at the second day of the debriefing seminar (compare annex 17c). Many of the criteria named are not linked directly to the fact that NETWAS is within AMREF (i.e. increase quality and professionality of services), others could probably easily be met even when remaining within AMREF (i.e. own letterhead). Increased autonomy within or even outside AMREF, however, was considered to be essential (i.e. complete autonomy for NETWAS and collaborative memorandum of understanding with AMREF). Yet, complete autonomy for NETWAS was not considered as being a "killer criteria" which needed to be fulfilled at all costs.

In a third step the collaboration of NETWAS with AMREF and vice versa were examined for their potential and constraints (compare annex 17d). The potential seems to be surprisingly high (i.e. AMREF to NETWAS : advisory service in health, management assistance; NETWAS to AMREF : advisory service in participative approaches and technologies), yet the constraints are as many (lack of confidence : fear of one's project being grabbed, competition for funds, communication problems between doctors and engineers, etc.). Independently of the future status of NETWAS, an improvement of collaboration between the two organizations seems to be very essential.

In a fourth step - again on the second day of the debriefing seminar - various options of status and situating NETWAS within and outside AMREF were studied and discussed (compare annex 17 e). Since no representative from AMREF could be present during this discussion, the Director General of AMREF was briefed about the outcome of the studies on the options. It was agreed that the options would be presented to AMREF by this report, probably supplemented with additional investigations submitted by NETWAS. AMREF would then study the proposed options and examine how far they could be integrated into AMREF's overall management system. Generously and openly, AMREF's DG showed himself to be prepared for concessions and indicated that AMREF would provide any assistance to support NETWAS' move toward a most essential status within or outside AMREF. In case an option outside AMREF would provide comparative advantages for NETWAS, he would be prepared to house NETWAS during the required transition period.

c) NETWAS staffing organization and management

NETWAS at present has a total staff of 15, composed of 7 professionals, 4 technicians and 4 administrative support staff. Three of the professional staff are in charge of country offices for Uganda, Ethiopia, Eritrea, Sudan and Kenya; of the rest, two are information officers covering the region and one is a participatory training development associate.

The country unit in Uganda is operated under the Country Director in Uganda and is AMREF's EHU there. Kenya, Eritrea and Sudan as well as Ethiopia are covered by officers stationed in Nairobi. In the latter three countries, AMREF does not have any activity other than the presence of NETWAS.

47

As already mentioned in chapter 5.1, job descriptions seem to exist for each position within NETWAS. Yet, they do not seem to correspond entirely with the current situation. Each staff member is assigned to specific tasks. Staff meetings are held occasionally, but not systematically. Because of lack of concepts and planning (compare chapter 3), operational plans and programmes are mostly decided on an ad hoc basis. This has also been partly caused by the changing external conditions (i.e. in the Sudan). No daily or weekly reporting routine is maintained by the staff.

The financing concept of NETWAS is such that it follows traditional budgeting. There is no transparency about cost/benefits relationships of any activity of the sections.

During the entire evaluation period, which was at times also stressful for the NETWAS staff, the team spirit remained high. Solidarity, high motivation and identification with NETWAS' objectives have been observed throughout the mission. Various tasks handed to them by the ET, such as internal evaluation exercises were implemented in a professional and participative manner, often with visualization aids.

5.5.2 Efficiency

a) NETWAS within AMREF

The institutional framework of NETWAS has had a positive impact in its delivery of services in those countries where AMREF is active and has a good image. In these cases, and considering that the EHU objectives are similar in many respects to those of NETWAS, it has facilitated access to the beneficiaries. This access has however been limited in the case of other prospective collaborating partners who may have confused NETWAS with AMREF at later stages.

In the area of training in particular, rather than viewing some of the approaches promoted by NETWAS as tools for achieving CBWSS goals, some target groups have viewed them as an AMREF approach and much efficiency may have been lost in the sector in defining and trying out rival approaches.

Opportunities may have been lost in the areas of advisory services when collaborating partners did not trust the identity of NETWAS. In information dissemination and documentation as well as appropriate technologies research, there may have duplication of efforts which could have been avoided had NETWAS' identity been established.

The fact that NETWAS was situated within AMREF has certainly contributed overall to a higher efficiency. Yet this contribution has been very significant at the outset of NETWAS, but is obviously diminishing and even turning to the opposite recently. It seems that the comparative advantage of NETWAS being in AMREF has reached a turning point.

b) NETWAS staffing organization and management

Internally, the NETWAS organisation functions in a very smooth way. Many of the activites carried out are supportive of each other and the sections are aware of what is

going on at the different levels. This integrated approach however has had some problems.

Training in participatory approaches has been in demand in the sector. This has forced some of the section heads to be involved in grass roots level training. Whereas this proves that the NETWAS staff understands the integrated approach, it may not be an efficient use of professional staff whose areas of speciality are diffferent.

The documentation function on the other hand has had the problem of not having adequate support from the other professionals particularly in areas of identification of material and sourcing, indexing and abstracting.

By the very nature of the internal and external institutional arrangements, NETWAS managment has had to adopt a very soft approach in order to ensure the cooperation of all the collaborating institutions. This may have to continue for quite some time.

In general therefore, there is still much room for improving the efficiency and effectiveness of NETWAS, especially if the institutional framework of NETWAS was reconsidered in view of its role in networking and its perceived and actual areas of strength in advisory services and information dissemination.

In this way the management system provides many opportunities for improvement through better and strictly applied management tools, such as realistic job descriptions, operational plans, daily reports and regular monitoring, evaluation and planning meetings.

5.5.3 Effectiveness

a) NETWAS within AMREF

In the formative years of NETWAS, its association with AMREF had very positive results in enabling the former to reach its objectives. It is for instance important to recognise the important role AMREF played in NETWAS, whose role in CBWSS increasingly gained recognition among the regional governments. In addition, at the outset of NETWAS, major admistrative load of setting up a new organisation was removed by AMREF.

NETWAS was able to embark on fulfilling its functions. The regional structure of AMREF had the effect of opening up major areas of collaboration in the institutions where AMREF functions.

As the NETWAS image has grown, the supportive role played by AMREF has caused some identity and image problems with NETWAS' prospective clients. In summary therefore the effectiveness of AMREF's and NETWAS' institutional collaboration has been very positive initially, diminishing with time to the present level where it would be necesssary to review the relationship.

49

b) NETWAS staffing organization and management

What has been said under efficiency (5.5.2 b) holds equally true for effectiveness. There is still room to improve effectiveness through improved management at all levels.

Overall the extraordinary commitment of NETWAS staff has certainly contributed to a very reasonable effectiveness. This needs to be considered when improving the management system by maintaining room for personal creativity and identification with the jobs.

5.5.4 Impact

The impact of NETWAS has been felt in the different countries of operation at different levels and with different intensity.

In Kenya and Tanzania, NETWAS activities in the areas of training and information dissemination are recognized, although at times confused with AMREF activities. In Ethiopia, Sudan and Eritrea, NETWAS as an entity is recognized for its role in supporting training institutions in the sector and as a conduit through which project proposals in the sector could be passed. In the case of Uganda, on the other hand, NETWAS does not appear to be recognized at all as the EHU activities there are synonymous with AMREF. Indeed when advisory services in training are requested, these are channelled to AMREF which then delegates NETWAS to carry them out. This confusion is in a way being minimized by the existence of a HRD club coordinated by NETWAS Uganda, but this is not very clear to NETWAS headquarters in Nairobi.

6. GUIDING PRINCIPLES FOR THE DEVELOPMENT OF RECOMMENDATIONS

This chapter provides information about the guiding principles which have been considered when developing the recommendations. They are directed by the final aim of the WSS sectors' activities of achieving a sustainable impact in the improvement of health through WSS measures. The various actors (national and international bodies) involved in the WSS sectors have in the past and are continuing to investigate the criteria, principles and strategies which contribute to the sectors' final goal. The findings have been recorded, disseminated and proclaimed in statements, policy papers etc. In the case of the above evaluation SDC's Sector Policy on WSS has been given due consideration.

In a first step SDC's strategy for sustainability is summarized, before the ITN system for a sustainable impact is elaborated. Finally, the important aspect of gender issues is given due consideration by Julia Kunguru's analysis from her findings during field visits and interviews. Since gender issues are transsectorial, they have been given due consideration throughout all aspects of evaluation.

6.1 Balanced development for a sustainable impact

SDC is very clear about the fact that an impact on the sectors' overall goal can only be achieved on a sustained base through balanced development. Use of drinking water, disposal of liquid and solid waste and hygiene behaviour of the population, are all part of the sociocultural and natural context. A strategy of balanced development has to take into account these important contextual conditions by considering the following five interconnected fields, all of which interact towards sustainability of WSS systems :

- The social field covers aspects of motivation for WSS measures and the active participation of users in decision-making and implementation processes.

- The institutional field covers the aspect of division of tasks between government, other institutions and the community.

- The economic field covers aspects of financing and resource management.

- The technological field covers aspects of technical WSS supply installations.

- The field of rules & regulations and knowledge & skills covers aspects of rights and responsibilities, as well as of training and transfer of know-how within WSS programmes.

Ecological aspects are transsectorial and need therefore be given due consideration in each of the five fields above (for more details refer to annex 9)

6.2 ITN system for sustainable impact

6.2.1 The actors, their roles and contributions towards sustainability

NETWAS' knowledge system (NKS) has been made use of (cf. chapter 4.1) to understand the various actors' roles and the interconnection with their contributions for a sustainable impact. An extract of the NKS has been made to gain a better overview (cf. graph 6.2).

Infrastructural measures, which are based on a balanced development strategy, last between 15 to 25 years from the planning/implementation stage up to the time when the required social and institutional changes would be consolidated on a sustainable basis. This fact has been considered as a guiding principle for the development of the sustainability system.

In a first step the actors involved have been named; secondly their roles, activities and contributions during the process have been defined; and thirdly the required duration of their contribution has been studied. The result of this exercise is shown in the table below :

Nr	Actors	Roles / activities / contributions	Required duration of contribution
1	End user	to make effective use, to manage and maintain the system, to pay for the services as far as able	throughout the process
2	Govt. and NGO-institutions	to promote and implement as well as to provide a follow up after physical completion	throughout the process
3	Governments	to provide and/or facilitate the required services through actors 2, to provide core funding for the non sellable services	throughout process with increasing responsibility
4	NRC, i.e. NETWAS in the function as NRC Kenya	to provide training, documentation and information also in the post- project phase (continuous learning is required)	throughout the process
5	RC East Africa	to initiate and to support the building up of NRC in East Africa	during the initiation phase
6	other NRCs in East Africa	to exchange experiences, to assist each other with its particular know-how	desired throughout process (as far as of benefit)
7	ITN Africa	to exchange experiences and participate in learning process	desired throughout process (but to less degree than no. 6)
8	ITN global	to exchange experiences and participate in learning process	during the initial phase

9	Other resource centres	to provide information, know-how and to participate in advisory services	desired throughout with decreasing intensity
10	ESAs	a) to provide assistance to build up the ITN from RC to NRC	during the initial phase
		b) to provide core funding for non sellable services such as documentation, information	throughout process with decreasing degree as far as GO take over responsib.

6.2.2 Institutional requirements

The above analysis reveals that a sustainable impact can only be achieved if the actors No 1 to 4 are able to provide their services on a sustained base as well as if actor No. 10 is prepared for a long-term commitment for core funding. This means that either these actors have to be sustainable in their roles on their own or substitutes for their services have to be developped and provided. Criteria which determine the sustainability of an institution are, among others, their management capacity, simplicity of institutional set-up, ability to be financed, qualifications and continuity of staff. These institutional requirements and criteria were considered when developing the recommendations in chapter 7.

6.2.3 Service requirements

The services provided by the NRCs (i.e. NETWAS) as well as by the implementing GO- or NGO-institutions have to comply with certain criteria to ensure a sustainable impact.

- The **first** principal criterion is that services should only be provided upon a clearly expressed demand. Since awareness of the need and importance of the services is often low, marketing and promotion have to be implemented before a demand is felt in those cases.

- The **second** principal criterion is that of encompassing appropriate technologies, manageable systems and a transparent, fair approach.

Technologies become appropriate if the five components of balanced development listed in chapter 6.1 are well considered.

Systems have to be manageable at the lowest possible institutional level. This means that beside institutional management capacity, aspects such as ability and willingness to pay need to be considered.

Fair negotiations between the end-users and implementing institutions become possible when different options are offered transparently together with their advantages and disadvantages, as well as the economic, social and institutional consequences.

6.2.4 The sustainability system

Table 6.2.4 shows the actors involved in the sustainability, their relations and contributions towards the final goal of a sustainable impact.

table 6.2.4
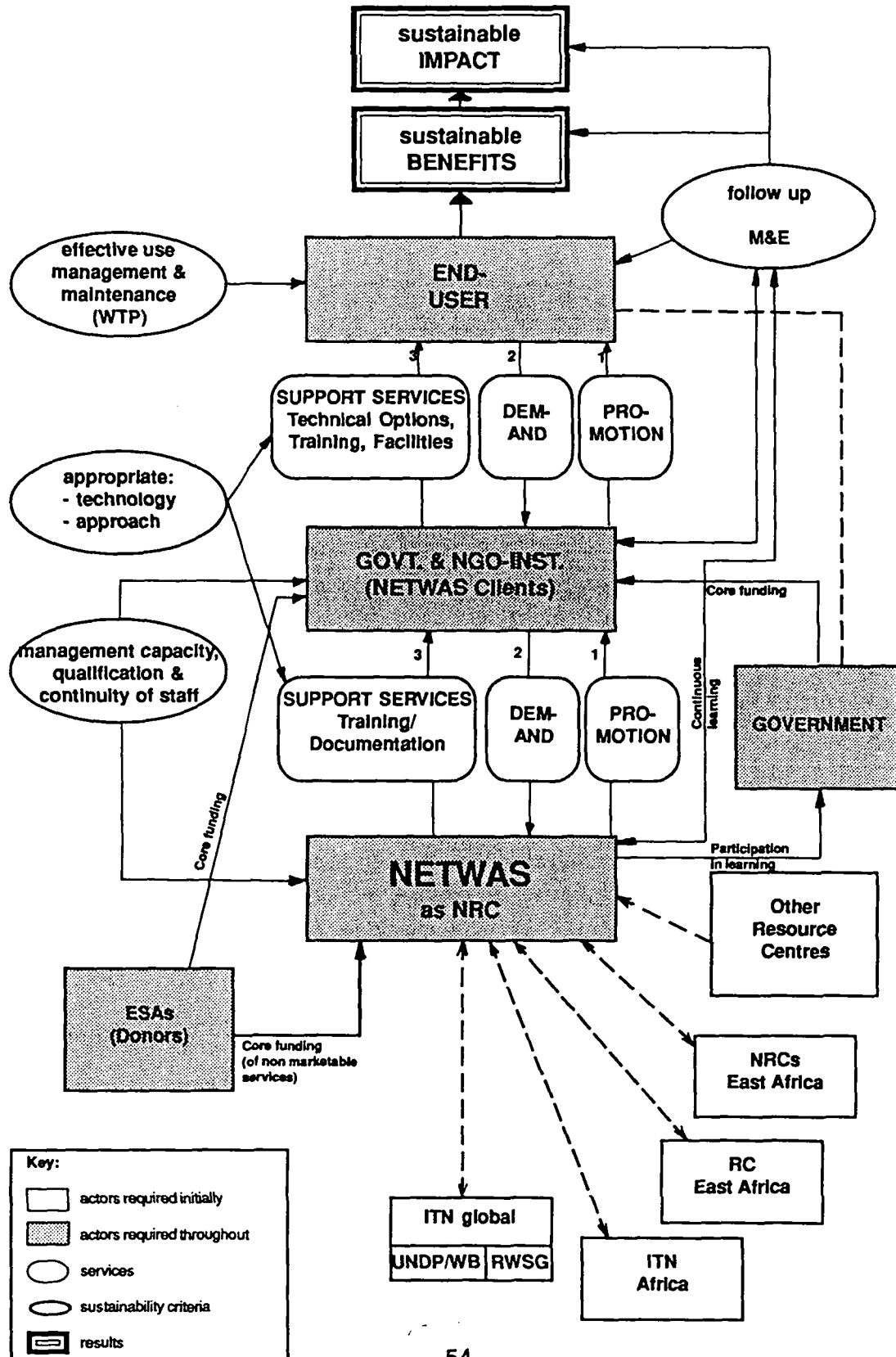
6.3   Gender Issues : Potential for Improvements (by Julia Kunguru)

6.3.1   Introduction

Gender Balance : Aims at treating both men and women equally, and single out their strengths during the project planning, implementation, operation and maintenance. Therefore, gender-balanced development means that project activities should :

* Have no negative effects on women and on the prevailing gender relations.
* Be at least as beneficial to women as to men.
* Place priority on women as they are chiefly responsible for children and are the main victims of poverty.

SDC's strategies for water supply aim at promoting a balanced development, taking into account the various interest and beneficiary groups.

As far as NETWAS' implementation strategy is concerned, the project supports both male and female beneficiaries at grass roots level, especially in the areas as described under 6.3.7.

6.3.2   Findings

The field visits took place between 2nd and 9th February 1994 in Uganda and Western Kenya. Collaborating institutions and demonstration projects were visited. The following were the findings on the gender-related aspects :

1. The demonstration projects do benefit both men and women. When forming committees, gender consideration was taken into account, although there are more men on the committees than women. Men dominate the committee meetings and are the main decision-makers at community level.

2. The technology promoted by NETWAS takes into consideration the users' ability to operate and maintain.

3. When organizing seminars/workshops due consideration has been taken to invite women participants, although specific seminars have been dominated by construction skills.

4. Training instititions are dominated by male students. Very few women attend courses in public health.

5. Efforts have been made by NETWAS to consider gender when training in participatory methodology.

6. Information dissemination is done efficiently, but the literacy level is low among women, therefore they are not able to efficiently use the information.

6.3.3 Gaps

A few gaps were identified :

1. Women are not active on the W+S committees, they do not hold elective offices, therefore they do not influence any decision-making.

2. Attendance of women at seminars/workshops and meetings was found to be poor.

3. Books related to gender are not sufficient.

4. Health education is not promoted vigorously.

5. Women are not consulted on the various technologies introduced at community level.

6.3.4 Potential for Improvements

NETWAS could incorporate the following ideas when planning future activities:

1. NETWAS should ensure that both men and women participate in the planning and implementation of activities.

2. When planning seminars/workshops at community level, care should be taken that they are held within the community in order to ensure participation of men and women.

3. When planning workshops at regional level, invitations should be sent to both men and women.

4. Collaborating institutions could include women organizations, such as YWCA.

5. Gender issues should be integrated in the project planning, it should not come in as a separate component with separate planning routines, but should be included as a normal part of planning.

6. Training in gender awareness and gender planning methodology should be developed.

7. Health education should be intensified, and this could be achieved if the focus is on women.

8. Women should be consulted when introducing various technologies, because their views are important if the technology can be sustained.

9. An inventory of women involved in W+S should be made, so as to provide the data needed   for planning, implementation of activities promoted by NETWAS.

10. AMREF has a separate unit, addressing gender issues, therefore NETWAS should make use of it, especially in the area of research on gender related activities.

7. CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations are made on each of the above chapters/ subjects on the following three levels :

1) Regarding project concept, planning and implementation

2) Actions up to the end of the ongoing phase

3) Actions in a new project phase.

7.1   Project Planning

7.1.1   Project Concept, planning and Implementation

- A needs and market assessment has to be made and a business plan developed accordingly. Since most of the effects can only be realized in the long term, this assessment requires professional experience and probably the application of unconventional methods (PRA, cf. annex 21). This market assessment which should be undertaken in all countries of operation, starting from the assessment of already available information, studies, etc., should provide information about the following issues :

  - need and demand of services in the fields of HRD, advisory services both in hard- and software, documentation and information dissemination;

  - gaps and qualitative shortcomings of already-existing services in the above fields (i.e. resulting from interviews it seems that knowledge and experience in solid waste and water resource management is lacking);

  - capacity of NETWAS staff, HRD and eventually additional staff requirements.

- Objectives, target groups and strategy need to be adjusted according to the results of the needs and market assessment as well as to the available means. (Caution has to be taken only to carry manageable load → demand and supply have to be in balance with each other, and also with the available financial means).

- In a new project concept, the need for a solid basis at the RC as well as the NRC in Kenya has to be emphasised. This will ensure that the activities at regional level become more effective (cf. recommendation 7.2.1. a).

- It is essential and relevant to continue the institutional approach in a future strategy, yet it has to be geared more towards demand orientation and balanced development. Under the aspect 'balanced development' special attention has to be paid to gender issues, i.e. that women are consulted already in the decision and planning stages, since they hold considerable responsibility in water supply and sanitation (for more details refer to SDC's Sector Policy on water supply and sanitation, annex 9).

- The PPM, based on the ZOPP methodology, needs to be reviewed for its appropriateness as a planning instrument for NETWAS. NETWAS requires a manageable planning instrument with the following provisions :

  - Continuous cycle of MEPI (Monitoring, Evaluation, Planning, Implementation).

  - Opportunities at frequent intervals of space and time to develop creatively new options, solutions, etc., adapting to changes in internal and external conditions.

  - Clear phasing of activities, taking into account the available means (manpower, finances, etc.). Overloading of staff has to be avoided, but focusing at any time on specific and relevant issues has to be envisaged. Operational plans have to be developed and applied accordingly. The monitoring and backstopping mission will have to attend to this issue more intensively in future.

7.1.2 Actions up to the end of the ongoing phase

- TOR for needs and market assessment should be developed as soon as possible.

- Need and market assessment should be implemented before the ZOPP planning workshop for the next phase. This will certainly conflict with the date already proposed for June 1994. Therefore a prolongation of the present phase has to be envisaged.

7.1.3 Actions In a new project phase

- Planning and monitoring instruments must be strictly applied and adjusted if needed.

- Demand orientation has to be handled creatively. This means, for instance, that government institutions who need and demand training of trainers by NETWAS, but are without a budget for this, should be helped to raise funds by assisting them to make a project proposal.

- Additional target groups which could be addressed in a new phase could be professional associations, and women NGOs such as YWCA.
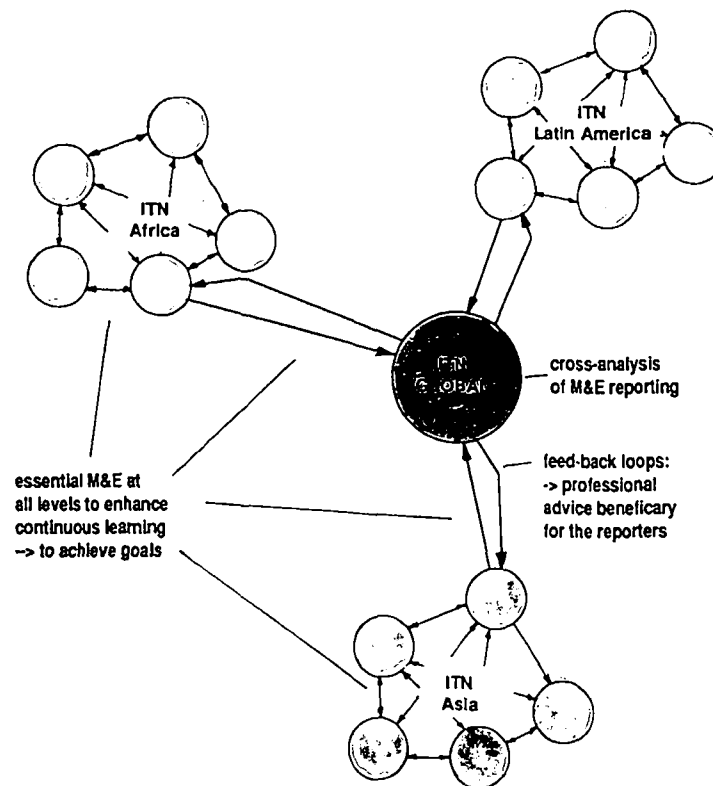
7.2 The main actors in the programme

7.2.1 Project concept, planning and implementation

a) ITN networks at different levels

- It is certainly justified that **UNDP/WB's headquarters** reviews the approach and strategy within the ITN network. A cross-analysis of the various regional ITN centres' evaluations would provide a useful basis for this exercise. In any case, it is suggested that UNDP/WB act either at a global or continental level as a monitoring and evaluation pool. Essential information would be reported from all directions (ITN centres) to this pool. The information received would be cross-analyzed and the results immediately fed back. The system would only work if the feedback is of a high quality and of benefit to the information suppliers. These services of the pool would contribute to enhancing a continuous and essential learning process and therefore contribute substantially to the sector's goal.

ITN - Global Network
Built on regional networks
respective on national networks

ITN Latin America

ITN Africa

ITN Asia

cross-analysis of M&E reporting

feed-back loops:
-> professional
advice beneficary
for the reporters

essential M&E at
all levels to enhance
continuous learning
-> to achieve goals

global system	→ for initial phase
regional system	→ ideally to be continued
national system	→ to be on a sustained base

table 7.2.1.1

• The **ITN Africa network** should be maintained, and efficient ways and means developed to achieve an essential coordination consisting of exchange of experiences and information, as well as conceptual orientation. More effective means could consist of professionally-facilitated workshops and seminars clearly geared towards the exchange of experiences and learning processes. In case this approach should not work, at least the monitoring and evaluation pool as described above should be established and maintained at the level of Africa.

• A clear vision concept and strategy need to be developed regarding the design and structure of the **East Africa ITN network**. Based on the mentioned needs and market analysis (chap. 7.1.), NETWAS should study various options and prepare a proposal.

In the following a possible option and some ideas are provided which evolved during the evaluation mission :

The underlying idea is to initially make use of the regional centre (RC) to build up and establish autonomous national reference centres (NRC). Therefore the RC would only be required for a transition phase, that is, up to the time the NRCs are well-established. NRCs would preferably be developed at existing, well-established institutions which would provide favourable conditions for a NRC in future. Criteria need to be identified for the selection of such potential institutions as well as TOR for the NRCs.

After the establishment of the NRCs, the network would continue to operate and remain effective if the following criteria are respected:

-   The driving force of a network are the benefits to its partners. Thus benefits have to be obvious and accepted by all network partners (NPs);

-   The NPs should preferably not be alike; each NP has to offer a speciality to the other NPs (i.e. rainwater harvesting, skills in participative approaches (PRA) etc.);

-   Each NP is autonomous, both institutionally and financially;

-   There is no central administration, office etc. which cause overheads. Each NP fulfils certain duties for the network. At times services may be bought from each other.

table 7.2.1.2

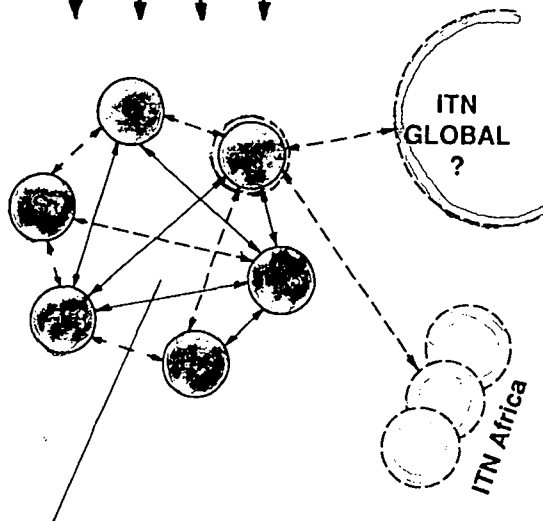ITN -   EAST AFRICA

Initiation and
Transition Phase:

Regional Centre (RC)
Initiates and supports
the building up of
national reference
centres (NRCs) In
coordination (M&E)
with ITN global and
Africa
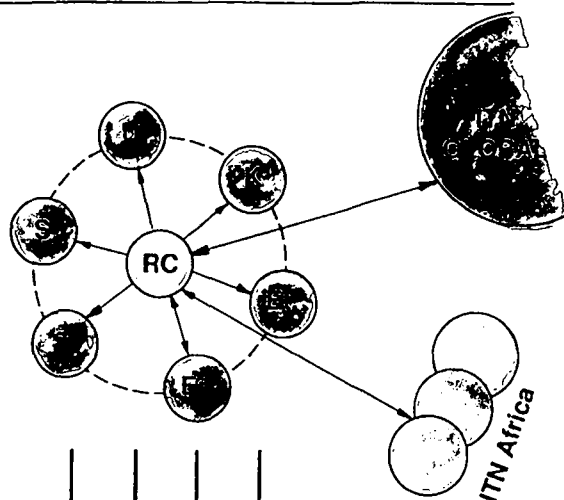
Transition

Final Phase :

autonomous national
reference centres
(NCRs) possibly each
with special
qualifications

ideally but not necessarily the network is still continued by exchange of
experiences and information, exchange of special know-how, M&E,
in any case activities which are beneficary to the NP

- The proposal that the RC in Kenya will, after the establishment of NRCs, not be
  maintained as a separate entity anymore, implies that the RC will then merge with the
  NRC Kenya, while possibly still maintaining some coordinating functions for the region
  as far as is desired. With this idea in mind, it will be important that the **NRC Kenya** is
  established with priority in the next phase separately from the RC, but under the same
  roof with NETWAS. Other practical reasons which call for the immediate establishment
  of the NRC Kenya are the following :

  - NETWAS will only be accepted as RC in the context of Kenya if they also provide
    services at a national level.

  - NETWAS requires the practical experience of running a NRC so as to be in a
    position to initiate and effectively support the establishment of other NRCs in the
    region.

- The initiation and establishment of NRCs require increased capacity in institution-building by NETWAS. Therefore NETWAS has to reinforce itself accordingly (training, additional professionals or external consultants).

b) Donors

- It is recommended that SDC continues its support of the ITN regional centre (RC) East Africa on condition that clear concepts and strategies are developed and applied based on a needs and market analysis and geared towards the greatest possible autonomy. Funding a NRC may also be envisaged if budgets are available. It is exclusively SDC's contribution which facilitates the promotion and establishment of NRCs, respectively a ITN network for East Africa. That is why it is suggested that SDC takes the lead in initiating the donor coordination recommended below. Yet it is anticipated that ITN at UNDP/WB headquarters together with RWSG will become more active in the promotion of donor support.

- Potential donors should inform themselves thoroughly about the ITN objectives, concept and strategies and agree in a coordinated way about possible engagement and support. Duplication should be avoided to make best use of the limited available resources.

- It is recommended that donors target their support more clearly to services which cannot be sold, but which are essential in supplementing the sectors' ongoing activities to achieve a lasting impact. In the context of the above project such services include the initiation and establishment of NRCs, training of their staff, running of a documentation and information centre, but exclude advisory services and even training of staff of other projects which should be done by the respective projects. The more sellable services which need to be provided in the long term (i.e. documentation and information) also require an equally long term external support. Donors are therefore urged to envisage a long term commitment and/or a strategy to hand over this responsibility to the country's public sector.

- Backstopping and monitoring by Infraconsult should be continued and reinforced, especially through inputs in the monitoring-evaluation-planning-implementation cycle with emphasis on planning assistance. This support provides an effective opportunity for on-the-job training tailored to needs. In addition, it also may be essential that for specific issues professionals from other disciplines are consulted and/or hired (i.e. for organization development, institution-building, management training and documentation support, etc.).

c) Governments

- Interactions with governments, policy/decision-makers should be maintained since they have been effective and can have a significant impact on a national level.

- Governments should be made more actively aware of the value of information, documentation, etc. through networking. They should be urged to play an active role in the financing of such services.

7.2.2 Actions up to the end of the ongoing phase

- It would be useful to develop the knowledge system further right down to the grass roots level. This should be done together with the partner institutions to understand whether and how messages are communicated to the end-users. It is expected that bottlenecks may be detected because of communication deficiencies.

- PALNET should be invited to establish its basis under the roof of NETWAS. In actual fact along with the reorganization of NETWAS, a unit dealing with approaches and methodologies needs to be established (cf. chap. 5.4). This unit, preferably headed by Rose Lidonde, needs to be reinforced with other professional staff (demand and market opportunities seem to be immense).

- NETWAS should immediately focus its efforts according to its available means and staff. Based on this analysis, decisions have to be made on which countries can be treated with priority for the promotion of National Reference Centres (NRC) in the future. It is recommended that the following countries are considered: Kenya, Tanzania, Uganda and Ethiopia. Preliminary investigations should be made of organizations and institutions who are interested and capable of housing such a reference centre. A list of selection criteria needs to be established (i.e. not implementing directly on grass roots level, potential and ability to operate autonomous, high recognition, access to funds, highly professional). In a next step potential donors should be contacted for their interest in funding a NRC. Depending on the outcome of these preliminary investigations, focusing may be continued to reduce the number of countries to a manageable size.

- Based on the above preliminary investigations, market analysis and a business plan, detailed project proposals should be prepared for each selected NRC together with the future partner organization. Funds should be obtained accordingly so that implementation can start in the next project phase.

- The contacts and achievements made to date should be maintained also in those countries which may not be considered as focal areas in the next phase.

7.2.3 Actions in the new project phase

- NETWAS should make greater use of the potential of resource centres by involving them in increased joint activities such as:

  - joint training courses, to achieve higher recognition and possibly even certification of courses;
  - joint consultancy missions to become more competitive in the market and to increase the possibility of learning by doing (both for the two actors).

- Demonstration projects at grass roots level should be continued for the reasons suggested above (chap. 4.10). It is obvious that this interaction by NETWAS can just be provided for a limited time period, which would only be a fragment in the life-cycle of a project (cf. annex 11). That is why such demonstration projects should always be implemented within the project programme of an implementing institution (NGO or GO).

7.3 Recommendations for Human Resource Development (HRD)

7.3.1 The basis for HRD for all levels

HRD needs both for NETWAS staff as well as for their target groups, respectively clients, has to be based on the results of the recommended market analysis (cf. chapter 7.1). HRD has to be considered as one of the main parts of the business plan to be developed. In the following recommended steps on how to develop HRD for the different levels, as well as an inexhaustive list highlighting some of the obvious training needs are given.

7.3.2 NETWAS

a) Steps to develop a NETWAS HRD concept

- Establish the needs of services to be provided, based on the market analysis (cf. 5.1.3 a).

- Review the job descriptions by comparing them with the verified needs to be met.

- Assess the qualifications of the available staff.

- Compare and assess how far the required jobs can be filled by the available staff, find out the gaps which can be met through additional training and others which require additional staff, maybe from other disciplines.

- Based on the above analysis, a HRD plan has to be established which considers HRD for the next phases; career management needs to be considered as well as incentives for NETWAS staff in the future.

b) Hints on obvious training needs

The list below is inexhaustive, since the mentioned market analysis is not yet available. Many of the skills could be improved by on-the-job training (possibly with external support). This method should be given preference, since it can be tailored to the effective needs.

Training of NETWAS staff towards a high professional level is considered as being essential to achieve the required acceptance as a competent regional centre :

- Management skills, including application of management tools, such as an efficient MEPI (Monitoring, Evaluation, Planning and Implementation) system, daily reports, etc., ZOPP method, staff management, enterprise concepts and approaches, etc.

- Skills in institution-building, including financing concepts, consideration of sustainability aspects.

- Promotion and marketing skills.

- Communication skills, including networking, moderation techniques, project proposals and report writing, documenting important field experiences (case studies as well as useful teaching aids, etc.).

- Learning through demonstration projects should be maintained.

- Gender sensitization has to be continued (cf. chapter 6.3).

- Skills in provision of consultancies including tendering, elaborating TORs and writing reports.

c) Possible additional staff requirements

Increase of staff will mainly depend on the market analysis and its consequence on the business plan as well as on the available financial means.

In the short term an assistant in participatory learning methods is required to reinforce Rose Lidonde's section. This type of service seems to be in great demand in the market and should therefore also be easyly marketed in support of the sector. Increase of support staff seems to be mostly required for the documentation and information section (handling of documentation centre, newspaper cuttings, accessioning and shelving, etc.).

7.3.3 Target Groups / Clients / Collaborating Institutions

a) Steps to develop the clients' HRD requirements relevant for NETWAS' support

Based on the needs and market analysis the essential gaps and niches which should be covered by NETWAS services, need to be named. Depending on the available means both number and capacity of staff as well as finances focussing on most essential issues should be envisaged.

b) Possible essential training requirements

- Middle level managers, policy-makers :

  - to increase awareness of importance of CBWSS, appropriate technologies and approaches including gender issues to achieve sustainable systems and impacts;
  - by means of invitation to NETWAS functions or seminars/workshops, facilitation
of   participating in learning processes, i.e. involvement in advisory board of NETWAS (soft and participative approach as maintained to date).

- Lecturers and trainers of collaborating institutions :

  - to increase know-how, knowledge and skills in CBWSS, appropriate technologies and approaches, including gender issues, with emphasis on participative learning methods to achieve a lasting impact on trainees and to ensure that the messages reach the end-users;

- by means of on-the-job training in the class room, but even more important in the field, possibly at demonstration project sites (cf. chap. 7.2.3).

• Librarians of collaborating institutions :

- to increase their capability to maintain a documentation and information centre providing essential services to professionals and trainees involved in the sector;
- by means of initial training at specific workshops and in particular through on-the-job training tailored to the needs at frequent follow-up visits.

• Potential National Reference Centres (NRC) :

- to facilitate the building up and establishment of NRCs to set up a national and regional ITN network on a sustainable base;
- by means of training in institution-building, development of a national concept, training in networking, communication skills, etc.;
- since these centres are preferably identical with one of the above collaborating institutions, all training aspects mentioned above are also relevant for the NRCs.

c) Certification of training courses

Certification of training courses should be envisaged in future, in order to achieve a higher acceptance and recognition as well as to provide upgrading potential for the trainees. This may be achieved by providing training courses in close collaboration with one of the already internationally recognized training institutions, such as IRC, WEDEC, etc.

d) Coordination in WSS sector activities

It is essential to improve the coordination among the various actors involved in the WSS sector in order to avoid duplication, facilitate synergies and make best use of the available resources. That is why a catalogue on "who is who in the WSS sector" should be developed for each country of activity.

7.4 Documentation, Information and Communication

7.4.1 Project concept, planning and Implementation

- Documentation, information dissemination and communication have to be maintained and strengthened in the next phase as three of the most effective tools to achieve the project's objectives. Since the market (users) would not be in a position to pay for these resources (users cannot appreciate the long term effect therefore WTP does not exist), mandate funding has to be provided either by governments or ESAs to secure sustainability of the benefits. ITN may make use of their offices to encourage local governments to participate in the financing of this sector.

- Assessment of available staff and the need for further training is highly required. Shortage of support staff as well as insufficient space at present seem to be obvious.

- Focusing is required at all levels of services to make the best use of the limited resources. This means that

  - NETWAS should concentrate on those institutions (preferably future NRCs) that have taken the initiative to develop information facilities and supplement such efforts, but should not attempt to start from zero;

  - Training should be provided in a well-planned and systematic way. On-the-job training tailored to specific needs may be more effective than formal training workshops;

  - Choosing books, training material etc. has to be done more selectively and restrictively. It is more effective to supply a single appropriate document than many inappropriate documents!

7.4.2 Actions up to the end of the ongoing phase

The planned actions for the ongoing phase should be followed-up. Special emphasis should be given to secure the support to the collaborating institutions. Follow-up visits should be planned and geared towards on-the-job training of the librarians to improve their performance.

7.4.3 Actions In the new project phase

- All activities of the previous phase need to be continued.

- The quality and operation of the NETWAS' documentation centre need to be improved and reinforced by the following measures:

  - Updating of the library through a thorough assessment by NETWAS' engineers with possible assistance from experienced tutors from training institutes. In addition other institutions who maintain documentation centres in the sector may be consulted such as IRC, SKAT, IRCWD etc.

67

- More emphasis should be given to include books on gender issues as well as on approaches and methodologies, case studies on policy issues etc.

- Continuous updating of the library has to be secured through regular contributions by NETWAS' engineers. It is suggested that they spend between 5 and 10% of their worktime for these activities.

- Since each document is normally kept in three copies, a maximum of two copies should be lent out so that one copy is always available at the centre.

• In future, NETWAS newsletters may be used more aggressively as a promotion (marketing) tool for the services offered by NETWAS. Gender issues should be more frequently covered in the newsletter.

• Support services to collaborating institutions should be even more tailored to their needs, thus becoming more attractive and therefore more effective i.e. the occasionally distributed photocopied articles could be upgraded with the participation of the engineers into a comprehensive info-package, including those photocopies but additionally with recommendations of new books (similar to highlights of IRC).

• Monitoring of the effectiveness of the services provided should be more systematically planned and strictly implemented. It is extremely important that this aspect remains part and parcel of the continuous learning process in order to improve the services provided.

• The lessons learnt at all levels of the sectors' activities need to be recorded and documented. NETWAS has therefore to document its own findings and experiences; but even more so it should encourage outside professionals, institutions etc. to document their experience including successes and failures. Publishing should be done professionally, probably with external resources so that a reasonable standard with broad acceptability is achieved.

• Introduction of a membership system should be considered to ensure that borrowed books are returned.

7.5 CBWSS Technology Approach

7.5.1 Project concept, planning and Implementation

- **Appropriate technology / manageable systems / transparent approach**

  NETWAS promotion of low cost technologies, mainly through training, is in many cases relevant to CBWSS. Yet, NETWAS has to widen its scope from the promotion of low cost technologies to appropriate technologies. Technologies become appropriate if the five components of balanced development are well considered (social, institutional, economic and technical components plus the one dealing with "knowledge and norms", compare chapter 3.3). This has to be achieved by attending to and promoting with equal importance the following three aspects:

  a) Appropriate technology in considering :
  - locally available material and skills (indigenous techniques),
  - quality of construction,
  - reliability of supply,
  - affordability and acceptability of supply standard,
  - simplicity of design for O+M friendliness.

  b) Manageable system which includes :
  - manageable by the lowest possible institutional level,
  - adjustable to desirable and affordable social changes, including gender issues,
  - ability to make effective use of the system,
  - ability and willingness to pay for O+M by the end users, but possibly also by the government and/or donors which means their preparedness for long term commitments (i.e. systems which require pumping devices may not be affordable by the end users alone).

  c) Transparent approach: provision of fair negotiations by offering and negotiating different options which means informing about their advantages and disadvantages as well as about the economic, institutional and social consequences.

- The **role of NETWAS In R+D** should be continued and reinforced in the form of coordination, promotion and facilitation. This means capable institutions may be encouraged to undertake essential R+D, they may be assisted in developing a R+D programme and proposal as well as in linking them to other institutions interested in the subject and/or with the potential for funding. It is also expected that through the recommended systematic M+E-system of NETWAS activities additional R+D needs may become obvious and may require attention.

- Depending on the NETWAS capacity and the results of the market analysis NETWAS is advised to study its active involvement in future WSS sector needs, such as water resource management and solid waste management. During the ET's interviews needs in these two fields were expressed by various institutions.

7.5.2 Actions up to the end of the ongoing phase

• The recommendations made above (chapter 7.5.1) on widening the scope to the promotion of appropriate technologies should be immediately elaborated within the ongoing training programmes. This is important so as to have more information and facts for the planning of the next phase.

• An overview of options for latrine coverslabs should be prepared including technology, cost, advantages and disadvantages.

7.5.3 Actions in the new project phase

• Tools need to be developed to support the recommended broader promotion of and training in appropriate technologies, manageable systems and a transparent approach. These tools may consist of documented options, a list of criteria to be considered, etc. Yet, caution has to be taken not to provide perfected modules which might be thought to be applied as recipes. It will be more appropriate to prepare guidelines and teaching aids which provoke creative thinking and adjustment to the actual situation, which is naturally different from place to place.

• Networks should play the role of arbiter between donors, NGOs and communities in cases where a technology not considered appropriate or sustainable is likely to be introduced (i.e. introduction of handpumps of an uncommon make in a given area and therefore, with difficulties in the future supply of spare parts). In doing this, NETWAS should improve its own capacity in this field and should make use of its linkages with other regional and international resource centres and in particular with the ITN network.

• The market should be explored for advisory opportunities in terms of consultancy. Such consultancies may be undertaken entirely by NETWAS staff, together with associated local experts, or even as a joint venture with associated resource centres. Such consultancies would not only provide an essential income, but also an additional opportunity to disseminate the ITN/NETWAS approach in a direct and practical way. Moreover this type of service would also facilitate an additional learning oportunity.

7.6 CBWSS Software Approach

7.6.1 Regarding project concept

- Although participatory approaches have been developed and promoted among NGOs, NETWAS staff and to some extent government institutions, application at project level is still rare and sometimes inconsistent. Different NGOs still have different approaches to participation in CBWSS. NETWAS in its next phases should concentrate on collaboration, through its PALNET arm, on issues that relate to developing and promoting an approach which, with minor modifications suits specific sociocultural contexts.

- The strategy of dealing directly with the actors has had the effect of popularising the approach among sectors. The training itself, however, has been considered as informal, since the certificates issued have no recognition, except among the collaborating partners. Since the approach has now been generally accepted at institutional level, an effort needs to be made to include participatory approaches in the curricula of different water supply and sanitation courses. This would facilitate the recognition of certificates issued in the training.

7.6.2 Actions up to the end of ongoing phase

- The approach used and promoted by NETWAS has been adequate and effective considering the technologies. Tere will be a need to test these approaches and revise them if need be. This may need to be done even during this phase, if NETWAS is to keep abreast of changing trends in CBWSS.

- NETWAS has to reinforce its section dealing with software approach. Ms Rose Lidonde should be provided with an assistant trainer in participatory learning methodologies.

7.6.3 Actions In the new project phase

- Sustainability of participatory methodologies seems to be ensured considering the interest expressed by sector projects. NETWAS' capacity to provide the necessary training is however limited by the available human resource base. The capacity to hold these courses should either be built into NETWAS or a networking arrangement be made with individuals with the know-how to carry them out on behalf of NETWAS.

- There is a need to building a **monitoring mechanism** into the participatory training workshops that would ensure consistency and quality of the training. This aspect would be even more important if NETWAS were to use trainers other than their own when requested to do so.

- The market potential for software approaches seems to be enormous in the WSS sector as well as in other development projects. This market potential should be explored and advisory services on a consultancy basis be offered. This will not only provide a viable income-generating activity, but provide another opportunity for promotion of PMT.

71

7.7   Institutional Issues

7.7.1   Relation to AMREF

a) Project concept, planning and implementation

The symbiotic relationship to AMREF has been very essential and supportive in setting up NETWAS. As NETWAS has matured and became operational as a network on its own, however, this relationship turned to become a hindrance, mainly with regard to its relationship with NETWAS' partners and clients.

This has been mainly caused by confusing NETWAS' identity and role with AMREF. These obstacles need to be compensated for in a new project concept to facilitate NETWAS operating effectively as a network centre. Preferably, the positive aspects of NETWAS' relationship with AMREF should be maintained, further explored and reinforced (i.e. the protective umbrella which AMREF provides to NETWAS in administration, auditing, etc. is of considerable value, the potential of exchange of services are many, etc.).

b) Actions up to the end of the ongoing phase

A decision about an improved status for NETWAS within or outside AMREF needs to be taken before the planning workshop for the next phase takes place. The following steps need to be taken :

- With the information available at present, option A1 of annex 17 is recommended.

  This option means that NETWAS would be a corporate body (with its own legal status). It would have an Advisory Board as it has at present. In addition, the management of NETWAS would be supervised by a Management Board.

  NETWAS' link to AMREF would be through the NETWAS Management Board and the Advisory Board. AMREF would be represented in both. AMREF would also provide internal audit services to NETWAS. An external auditor appointed by the Management Board would be responsible for carrying out annual external audits of NETWAS.

  NETWAS would have its own financial and administrative management unit reporting to the Management Board. This means NETWAS would also have its own bank account.

  Various measures would be taken to demonstrate physically that NETWAS' identity is different from AMREF, such as own letterhead and office location outside the premises of AMREF.

  Collaboration between NETWAS and AMREF would have to be maintained and reinforced by making best use of complementary services. These services should be "bought" from each other according to transparent business terms.

- NETWAS is urged to study further the above options, i.e. for legal implications, etc., and present them to AMREF.

- AMREF should study the possibilities for the realization of the proposed options within AMREF.

- Based on AMREF's analysis the most advantageous and practicable option needs to be elaborated between the main actors concerned (SDC, RWSG, AMREF, NETWAS).

- Depending on the option selected a realistic transition period needs to be foreseen and well planned to ensure the smooth development of a new status for NETWAS. This transition period should be used to develop the constitution and rules for the new status in detail, to make the physical preparation and to ensure the availability of the means required (including management capability).

7.7.2   NETWAS staffing organization and management

a) Project concept, planning and implementation

In conjunction with NETWAS' HRD programme (compare chapters 5.1 and 7.3), an adjustment in the number and qualification of staff and training, etc. has to be done on the basis of the needs and market analysis (cf. chapters 3 and 7.1).

NETWAS' organization and management systems need to be reviewed and reorganized, so that its chances for sustainability are increased. This means the services provided have to be marketable, and each service has to be considered on a separate budget line, so that financing can be obtained in the following two ways :

- for the straightforward marketable services on business terms,
- for the non-marketable services, such as documentation and information,
networking and initiation of national reference centres, etc. through transparent mandate funding.

The above clear splitting up of services has to be done at two levels, namely at the Regional Centre (RC) for East Africa and at the National Reference Centre (NRC) for Kenya. This is important for the following two reasons :

- The RC has a different life span than the NRC Kenya. The RC is expected to merge into the NRC Kenya after the NRCs are initiated and established within the East African ITN (compare chapter 4.4).
- Funding for RC activities may come from a different source than for NRC-Kenya activities.

The above splitting up of services on two levels has also to be reflected in the organizational set up of NETWAS. This means NETWAS would be divided accordingly into meaningful subsections with clear job descriptions and provision of separate budget lines. This division in subsections will not only provide more transparency in performance and

73

ease management, but it would also facilitate the closing of one subsection if it does not meet with the market demand and/or no funding for it can be obtained. Closing one subsection would thus not affect the continuation of the other sections.

b) Actions up to the end of the ongoing phase

NETWAS staffing organization and management need to be reviewed and reorganized, taking into consideration the above recommendation on the underlying concept for sustainability (cf. chapter 6). This reorganization should be developed in time, so that it can be applied in the planning and financing of the next phase. In fact, this exercise will be part of the business plans. It is recommended that an experienced consultant in organization development is hired to ensure an adequate and optimal set up.

The model shown below has been developed together with the NETWAS team and may be considered as a possible option to use as a base. The splitting up into RC East Africa anc NRC Kenya has not yet been considered.

Option
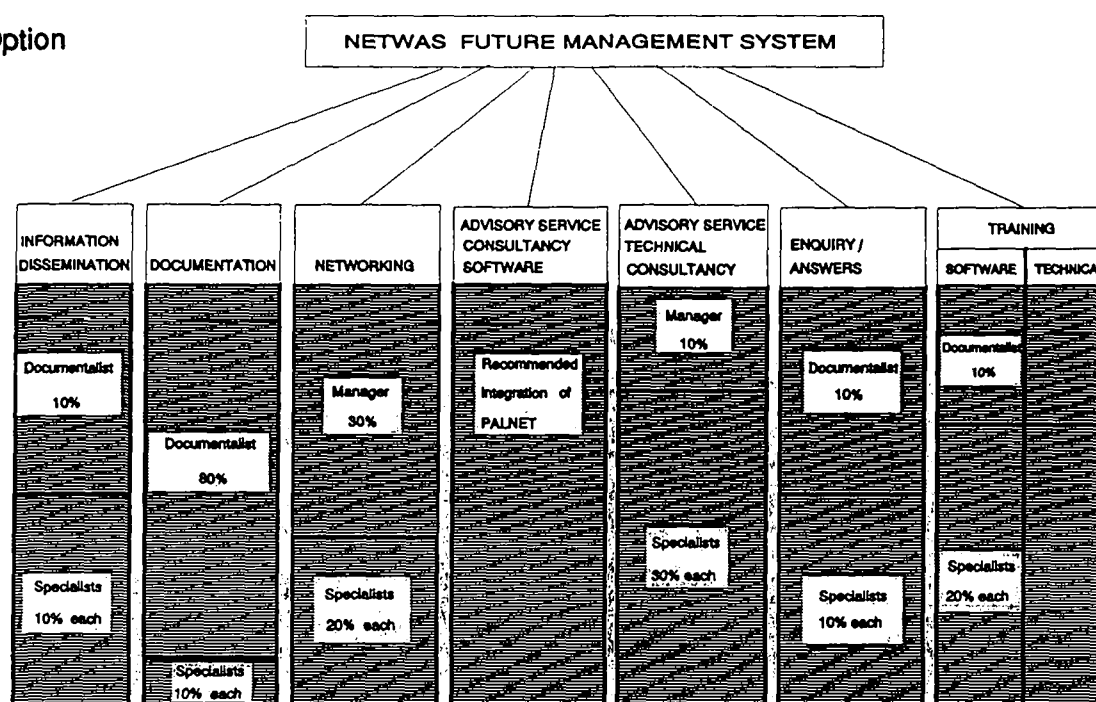
Assumptions of the above option :
- The system is improved with the assistance of a professional developer of organization system.
- NETWAS' management is capable of handling the system.
- Each subsection is headed by a capable section head.
- Each subsection corresponds to a market demand, respectively to a mid-term mandate commitment of a funding institution (ESA or government).
- NETWAS staff is highly professional and therefore marketable.
- Division into subsections is organized in such a way that collaboration between subsections is reinforced and encouraged.
- Any improvement in the present management system has to be such that it does not negatively affect the current high team spirit, otherwise it will reduce effectiveness.

7.8 Principal Recommendations and their relations

The recommendations listed above have been developed and described according to the headings of the report which follow the specified fields of the TOR. These recommendations have been detailed out, so that they provide all currently available information to those who are supposed to implement them. This form of presentation is expected to be useful for the detailed planning. Yet, for prioritization and to get an understanding of the importance and relationship of the recommendations, an overview is required. It is exactly this aspect which is intended to be covered by this chapter. Table 7.8 may provide assistance in visualizing and understanding the relationships. The following three main aspects are represented in vertical columns :

A) ITN - global/continental/regional;
B) Need and market analysis → business plan;
C) Status and reorganization of NETWAS

table 7.8
Principal
recommendations
and their relations

Village Level · 75 · Village Level
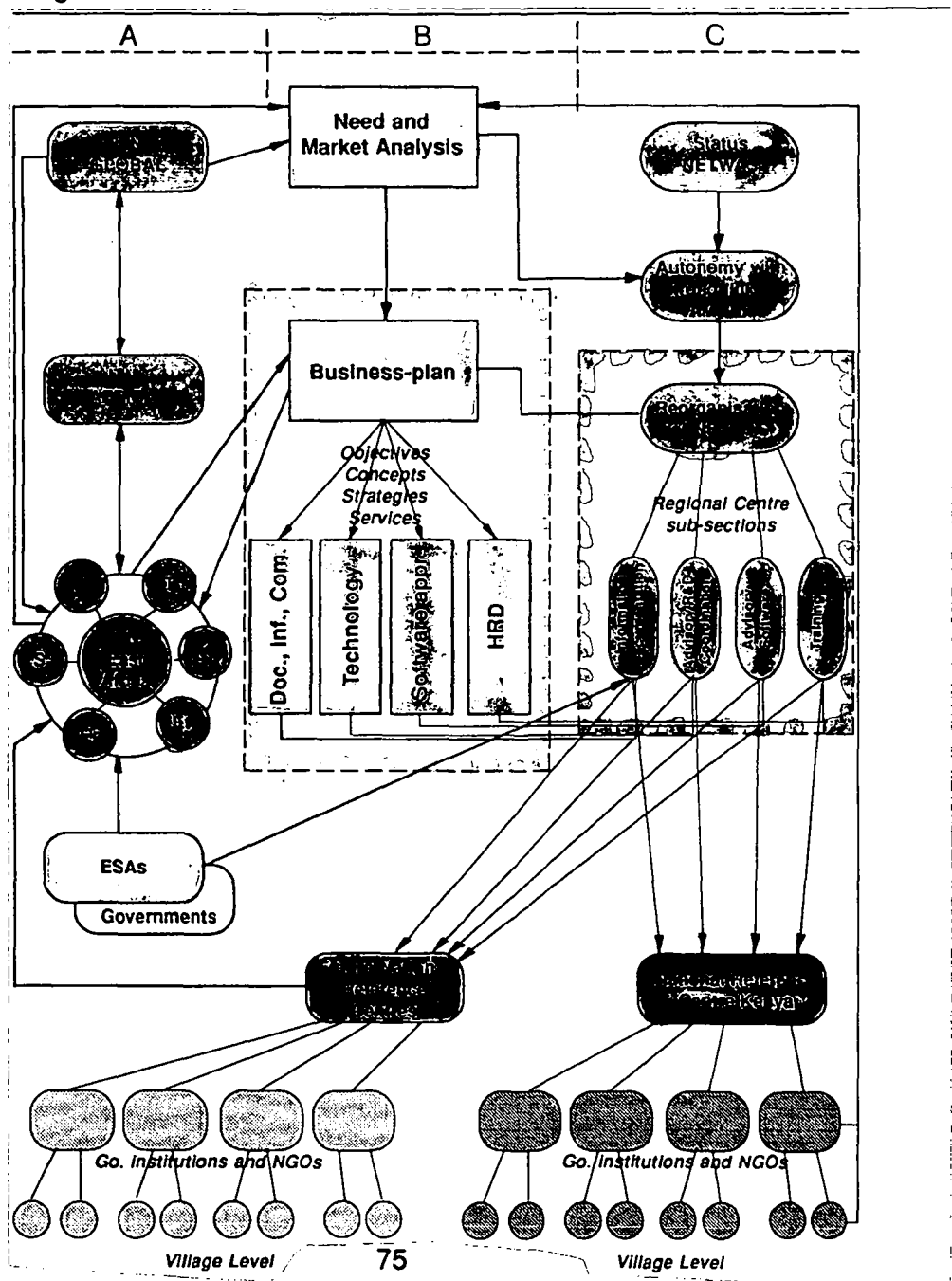
In the following, the principal recommendations are described in the left column, while reference is made to the detailed recommendation chapters in the right column. In addition, reference is made in brackets to the cahpters where the subjects are assessed.

Principal recommendations and their relationships	Ref.Chapter: (assessment) recommen- dations
A) ITN - global / continental / regional	(4.2.1.a))
ITN at global level (ITN-UNDP/WB-HQ) has minimized its support recently, it is therefore recommended to review its concept base by means of a cross-sectional analysis of various evaluations of ITN centres. In any case it is suggested that ITN act either at global or continental level as a monitoring and evaluation pool to enhance a continuous learning process at all levels.	7.2.1 a)
ITN East Africa requires a clear concept based on aspect B) needs and market analysis. A possible option suggests that the RC initially provides the required assistance to build up NRCs ideally by upgrading already well-established institutions. After the NRCs are well-established, the RC would merge with one of the NRCs (ideally Kenya). NETWAS is strongly advised to focus its activities according to its available means. The recommended ITN system tries to remain on manageable and sustainable grounds while at the same time still providing the essential services to support a sustainable impact of the WSS sectors' activities.	7.2.2
ESAs are urged to support the ITN system once this is based on a clear concept and individual proposals for the RC and NRCs have been developed. Their support should be clearly reserved for services which cannot be sold, such as information and documentation, initiation of NRCs including training of staff, etc. NRCs should be forced by this policy to orientate their services to the market demand, respectively go for marketing (promotion). SDC is recommended to continue its support to the RC, while other donors are invited to support individual country centres.	(4.2.1 b)) 7.2.1. b)
Governments should be promoted to gradually take over the role of ESAs.	7.2.1 c)

B) Needs and market analysis	(3)
Most of the recommendations have their basis on the recommended needs and market analysis. This analysis which should be undertaken in all countries of operation, starting from the assessment of already available information / studies, should provide information about needs of and demands for services in the field of HRD, training and advisory services, both in hard- and software, documentation and information dissemination. Based on this analysis a business plan should be developed which considers the following aspects :	7.1
• Clarification of the target groups, possibly including focusing.	(3.4) 7.2
• Adjustment and improvement of the concept and strategy by attending more to demand orientation and to all five aspects of balanced development.	(3.1. + 3.3)
• HRD and training needs both for NETWAS and the target groups. Recommendations are provided on how to develop the HRD concept as well as hints on obvious training needs.	(5.1) 7.3
• Documentation, information and communication needs to be maintained and strengthened as one of the most effective tools. Focusing is required at all levels to make better use of the limited available means. Hints for concrete improvements in the new phase are also provided.	(5.2) 7.4
• The scope for CBWSS technology and approaches needs to be broadened from promotion of low cost technology to appropriate technologies, including manageable systems. Information about advantages and disadvantages of different options should facilitate fair elaboration of sustainable solutions. Tools need to be developed to support this approach.	(5.3)+ 7.5
• CBWSS software approaches and methodologies now seem to be generally accepted at institutional level; an effort needs to be made to include participatory approaches in the curricula of different water supply and sanitation courses. The market potential for software seems to be enormous and needs to be explored.	(5.4) + 7.6
This elaboration, starting from the needs and demand analysis to the adjustment of strategy and concept, and in particular of the services to be provided, has a direct influence on the outline of the East African ITN concept, but even more so on the reorganization of NETWAS.	relation of B to A and to C : cf. graph 7.8

77

C) Status and reorganization of NETWAS	
NETWAS status needs to be upgraded to improve its recognition as a network centre and to reduce the view among the collaborating institutions that NETWAS is a competitor. Options of NETWAS having an autonomous status within or outside AMREF need to be studied and elaborated. Maintaining a strong link to AMREF is considered to be essential, since this will be beneficial to both of them. A transition period is recommended to provide NETWAS with sufficient preparation time for a new status.	(5.5) 7.7.1
NETWAS staffing organization and management need to be reorganized with the assistance of an external consultant by considering the following two aspects :	(5.5) 7.7.2
• adjustment of services to the needs and market analysis, respectively to the business plan; • reorganization of RC into subsections for more transparency in management and financing and thus to improve services and chances for sustainability.	
It is suggested that the RC and NRC for Kenya are both situated at NETWAS, but are administratively clearly separated (i.e. separate budget lines). It is suggested that the RC provide assistance for the building up of NRCs, respectively to develop ITN East Africa. It is recommended that the NRC Kenya continues to support GO and NGO institutions by providing training of trainers, etc., and thus to improve their services to the villagers and achieve a lasting impact (institutional approach).	(4) 7.2.1
A systematic and continuous cycle of MEPI (Monitoring, Evaluation, Planning, Implementation) needs to be developed and applied with different intensities at all levels of ITN. MEPI has to be designed to improve the management system as well as to ensure synergies among the various ITN activities and to facilitate a continuous learning.	7.1.1 7.2.1

7.9   Follow up steps / realization of recommendations

The draft recommendations were reviewed at the debriefing seminar on 7th and 8th March. The above-mentioned recommendations have been adjusted accordingly. Further modifications will come up once the report has been studied by the actors involved. In a next follow-up step the realization of the recommendations needs to be planned by designing an operational plan. A rough plan (bench marks) showing the main steps to be taken up to the beginning of the next phase had already been done at the end of the debriefing seminar (compare annex 18). This rough plan needs to be detailed out into an operational plan. It is of utmost importance that this operational plan is developed by the NETWAS team, possibly with the assistance of the backstopper. It is the NETWAS team who has to agree on setting the priorities, in sharing the responsibilities and in designing the time schedule. In any case, care has to be taken only to take a manageable workload. It is recommended to give priority up to the end of the ongoing phase to the preparation of the next phase in considering the above-mentioned recommendations. This means that the ongoing activities at the RC should be maintained only at a low level.

7.10   Final Remark

Whichever measures are considered to be relevant for the improvement of NETWAS' services, the following two aspects need to be kept in mind :

- The present high motivation and team spirit of NETWAS should not be hampered negatively by any so-called advanced mangaement system.

- The proclaimed market and demand orientation to achieve sustainable projects and impacts should not result in leaving behind and forgetting the poorest who have no purchasing power.

79