5-1 TECHNICAL REPORT

5-1.1 THE AIM OF THE TECHNICAL REPORT

The technical report is an important document, necessary in the various steps of planning and implementing water schemes or other constructions.

In the hands of the Ministry concerned, the technical report is the basic tool for preparing the budget of the new financial year as well as for the planning of the yearly activities. The technical report is required by the engineer or the technician in order to plan and to start a project.

Foreign aid organizations interested in co-financing a project will find all necessary information and details in the technical report.

The technical report must be well presented and should be attractive to the reader. Each page should be numbered and clear reference to the various chapters should be given.

5-1.2 CONTENTS OF THE TECHNICAL REPORT

Listed below, as a guide line for technicians and engineers, are the main points that make up a technical report. Emphasis should be put on the preliminary surveys of the sources, before drafting the technical report (see chapter 3-4.1).

1. Introduction

Reasons for proposing the project (e.g. present water conditions)
Situation and actual infrastructure
Population and demographic development
Socio-economical aspects (here, detailed and clear information is especially necessary)
Self help activities
Map of the country showing the situation of the village

2. Water budget

Available water and analysis
Water consumption, actual and future
Water balance

3. Project description

Hydraulic system (general lay-out, chapter 4-1)
Catchment
Sedimentation, other purification plants (e.g. slow sand filter)
Pumping station, interruption chamber
Storage tank, other tanks
Distribution
Construction methods, choice of material

4. Estimated cost

The estimated cost should be as accurate as possible. It is necessary to indicate the size and quantity of material (cement, reinforcing iron, pipes, etc.). If possible, include the inflation cost during the estimated construction time.

Cost in cash:

a) Buildings

Catchmant
Sedimentation tank (or interruption tank)
Storage tank
Stand pipes, wash basins
Shower house & store

b) Hydraulic installations

Pipes (plastic, galvanized, asbestos, etc.)
Pump with driving engine (motor-pump)

c) Sundries (10 to 15 % of buildings & hydraulics)

Transport
Tools, lubricant, spare parts
Contingencies

Cost in kind:

a) Community

Bush clearing, opening access roads - excavating & backfilling of trenches and pits (foundations)

Supply of stones, gravel, sand, wood and other material available locally

Organization of community work

b) CD Department / SATA-Helvetas

Survey, projecting & planning
Administration and supervision

Total cost of the project (= cash + kind)

Cost per capita / actual & stage I

5. Proposed financing

Village contribution in cash	10 %
Village contribution in kind	10 %
Government contribution in cash (various grants)	20 %
CD / SATA-Helvetas in kind	20 %
Foreign aid in cash	40 %
	100 %

6. Organization of the project

The Project Committee:

- organizes meetings & community work
- organizes the supply of local material
- collects the village cash contribution
- prepares applications for grants (government & other)

Consultants to the Committee:

- the community development officer and the engineer are consultants to the Committee

7. Maintenance of the project

Maintenance is one of the most important points to consider before planning a water scheme. Please read with attention Chapter 6 where all important information is given.

8. Final remark and recommendation

These remarks are meant to recommend in a summary the construction of the project.

The completed report will be signed by the engineer (or technician) and by the CD-Officer of the area.

Annexes to the technical report

Map of the country indicating the situation of the village.

Plans of the village (lay-out) including all buildings and installations to be constructed.

Hydraulic profile of a water supply.

5-2 EXECUTION OF PROJECT

5-2.1 BEFORE STARTING A PROJECT

A project should not start before it is approved by the Community Development Department and by the local authorities.

It is necessary to have a clear picture of the financial sources as: dates of instalment from external aid, confirmation of government grants, etc. At least 50% of the village contribution should be paid to the project account before starting the construction work.

It is necessary also:

- to have recruited all masons & labourers needed
- to have all tools, material & machines ready
- to have completed the technical report with execution plans
- to have prepared the list of material to be ordered

5-2.2 DURING THE CONSTRUCTION

Close supervision is necessary to build properly the different elements of a construction project.

At the project site, daily reports must be made and a log book with material book must be kept regularly by the foreman.

Periodic reports have to be prepared by the engineer. These reports show the progress of the work, the problems, the contact with the local population, the financial situation and include a proposition of how the project will continue.

When financial grants are given according to the progress of the construction, a report and a financial statement are required in order to receive further amounts (Progress Report).

5-3 COMPLETED PROJECT

5-3.1 FINANCIAL STATEMENT

As soon as the project has been completed a financial statement will be handed over to the department concerned (Community Development or other departments).

The statement will show clearly the cost in cash on one side and the cost in kind on the other side for each partner involved in the project.

5-3.2 FINAL REPORT AND HANDING-OVER FILE

A final report of the completed project will be handed over at the same time as the financial statement to the CD department and to the Project Committee.

The final report should include the following:

- Technical report, technical details & plans of all constructions.
- A brief history of the project.
- Comments on the technical aspects (possibility of extension, lifetime expectation of installations, output, special care) and on the expected influence of the new construction on the villagers and their surroundings.
- Handing over note concerning the buildings & installations to the Project Committee and a duty sheet to the caretaker.

5-3.3 DRAWING OF PLANS

A complete set of execution plans for all constructed buildings and installations of the project should be drawn. These plans must include all modifications made during the construction.

A site plan (lay-out) of the project should be drawn to scale 1 : 1000, 2000 or 5000 and show all new buildings and hydraulic installations (air valves, cleaning valves, etc.) and houses of the village with foot path.

5-3.4 DOCUMENT FILE OF A COMPLETED PROJECT

Technical report, estimates, calculations, instructions (pumps, turbines & other engines).

Correspondence and receipts of material.

Minutes of meetings and opening addresses.

Repairs, possibilities of extension.

Final report with financial statement.

All situation and execution plans.