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NAMIBIA

Ministry of Agriculture, Water and Rural Development

Department of Water Affairs (DWA)/ Directorate of Rural Water Supply

THE REPUBLIC OF FINLAND

Ministry for Foreign Affairs

Finnish International Development Agency (FINNIDA)

WATER SUPPLY AND SANITATION PROJECT IN OHANGWENA REGION

WORK PLAN 1994

Approved by the Supervisory Board on 1.12.1993

CONTENT

ABBREVIATIONS

AH	Arto Hurtta
AS	Arto Suominen
BDA	Business Development Adviser
CRW	Community Representative/Water
DAPP	Development Assistance People to People
DRD	Directorate of Rural Development
DWA	Department of Water Affairs
EAIHP	Engela Area Integrated Health Project
EIA	Environmental Impact Assessment
FINNIDA	Finnish International Development Agency
FS	Filemon Shiweda
HK	Hilma Kapweya
HM	Helena Martin
HP	Hannu Pelkonen
IEC	Information, Education and Communication
JH	Johannes Hashoongo
LN	Lazarus Naudili
MEC	Ministry of Education and Culture
MHSS	Ministry of Health and Social Services
MS	Martin Shikongo
MT	Miriam Truebody
PC	Project Coordinator
PDA	Planning and Design Adviser
PH	P. Hamman
SC	Steering Committee
SCDA	Senior Community Development Adviser
SDP	Sanitation Development Plan
SK	Severinus Kamwanka
TOR	Terms of Reference
UNICEF	United Nations Children's Fund
WP	Water Point
WSSDP	Water Supply and Sanitation Development Plan
WSSPOR	Water Supply and Sanitation Project in Ohangwena Region

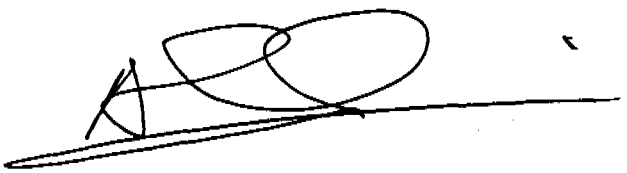
1. FOREWORD

The work plan 1994 has been prepared according to the results of several workshops and meetings organized with DWA, Regional Council and project staff during the period of September -October 1993.

The numbering of the sub-projects, components and outputs is following the numbering in the Project Document. Therefore it is very important that the work plan and the Revised Project Document are read together.

There are many uncertainties and assumptions. One of the most critical activities for the successful implementation is the timely replacement of the leaving Project Coordinator and employment of the Business Development Adviser. The Steering Committee also decided that the Senior Community Development Adviser post is a full time vacancy during 1994 and her main duty during the year is to train one Junior Community Development Adviser to take over her duties early 1995.

November 15, 1993



Arto Suominen
Project Coordinator

2. WORK PLAN

5.1 Community Development

5.1.1 Institution Building and Human Resources Development

5.1.1.1 Establishment of Water Point Committees, Training of Caretakers and Providing Hygiene Education for School Children

The establishment of Water Point Committees is planned to be carried out by the Community Representatives/Water. In the beginning the project's community development officers will carry out the establishment process, but this duty is gradually transferred to CRWs according to the establishment process of multi-sectoral development committees. Therefore the project's physical implementation capacity will greatly depend on the success of the development committee establishment process. The contribution and support of the councillors and traditional leaders in the beginning is very essential. The establishment of multi-sectoral development committees is presented in ANNEX 1.

The training of caretakers will be done during the construction process for the wells equipped with a bucket lifting system. The development of caretakers' manuals will continue by the DWA and the project will promote and facilitate this development by providing participation to the development workshops. A special handpump caretaker's training course is under planning by the Diocesan Water Project. The project will promote and facilitate this development during the year 1994. Anyhow the installation of bucket water lifting systems are given the priority.

The development of a health and hygiene education package created during 1993 will continue. Education demonstration days will be held at schools provided with sanitation facilities through the year 1994. The participation of project employees in the actual training will be gradually be reduced and more responsibility will be given to the Community Health Workers in the area and teachers of the particular school.

Teacher training?

5.1.1.2 Establishment of Multi-Sectoral Development Committees

During 1994 the Project will facilitate the establishment of development committees for a pilot area only.

5.1.1.3 Training of the Drilling Crew

The training of the crew will be mainly carried out by the senior DWA's drillers as on-the-job training. It is proposed that the project's drilling crew can participate in special training courses organized by DWA for its own drilling staff. A reservation to invite the German Drilling Trainers (Catholic Mission) to provide additional training for the drilling team is made.

5.1.1.4 Development of Community Training Material

The development of community training material during 1993 will continue and the project will participate in the workshops organized by DWA, UNICEF or other organizations in this sector. Great emphasis will be given to the coordination and collaboration with other institutions in the development of community training materials instead of developing project's own material in isolation. See ANNEX 2.

Jo: If 1 in 4 wells runs dry each year - won't this be useful follow process?

5.1.2 Community Mobilization

5.1.2.1 Creation of Community Awareness

The awareness of the project activities and strategies as well as hygiene and water use will be created in community meetings organized for the establishment of water point committees. Before the construction of Omafo-Eenhana rural piped scheme large community meetings will be organized for all the leaders of the area to discuss the principles and responsibilities in the pipe scheme construction and management. See ANNEX 3.

5.1.2.2 Establishment of Water Point Committees

The water point committee will be established for each communal water point. Water point committees will sign all required documents to fulfil their responsibilities in the construction process. The committee will take full responsibility of the management of the water point after acceptable completion of the work. Principles of the Water Point Committee Manual developed by the DRD/DWA will be followed. See ANNEX 3.

5.1.2.3 The cost sharing formulas

The principle that the community will pay all the expenses of the operation and the management of their water point will be tested in the project. This principle is valid for wells and sanitation, as well as for the piped water. The experience regarding the acceptability of this principle within the communities will be tested, and according to the experience the cost sharing formulas will be developed during 1995.

5.1.3 Water Supply Construction

5.1.3.1 Construction of low-cost shallow wells

The construction of shallow wells has been programmed based on the applications received by the project. The target is to construct 15 shallow wells with a windlass and 5 shallow wells with a VLOM type handpump during 1994. Main construction method is brick lining. See ANNEX 3.

5.1.3.2 Drilling of the shallow boreholes

The drilling of the boreholes is programmed based on the applications received by the project. The target is to drill 10 boreholes and equip those with VLOM type handpumps or if the yield and water quality are good the experimental installation of a wind pump can be tested. See ANNEX 3.

5.1.3.3 Omafo-Eenhana Rural Piped Water Scheme

The construction of the piped scheme will depend on the French Government's financing capability. It is planned that the financing will be solved during the first half of the 1994, and in accordance with it the construction could start after harvesting period. The construction method of using local individual artisans as contractors working with the community is proposed to be tested. However, this requires a tender board exemption before payments can be done by the DWA. This construction method requires high input from the communities and due to the long construction period there is a risk that the community's interest may not be the same through the whole construction period.

It is also recommended that the construction of branch lines will not start before the pumping station at Omafo is in operation in order to have enough pressure for all constructed lines. See ANNEX 4.

The following principles have been agreed in the joint meeting with the DWA, GTZ and WSSPOR on 29.10.1993: (All subjects were later endorsed by the French Embassy)

* the following components will be constructed using individual local builders (contractors) who will work together with the community:
  + cattle troughs
  + wash basins
  + stand pipes
  + ground level water tanks (ferro cement)
  + pipe installations

* the connection fee of N$ 500,- will be requested to be paid by the communities for the water point

* the use of water will be metered at each connection point and water will be invoiced based on meter readings

* each branch line will be equipped with a master water meter and a control device

* the community will have the full responsibility for the whole branch line and all accessories connected to it

* the payment system within the communities to be developed

* the school and clinic connections and water use will be paid by the Department of Works

* private connections will nnotbe accepted before the system has proved to be fully operational

* the communities should contribute at least the following:
  + labour for making bricks, concrete, digging, pipe laying, bush clearing etc...
  + sand
  + water
  + storing
  + security

* elevated water tanks will be constructed through the normal tendering procedure

The following subjects to be checked and cleared before the construction can start:

Item		Responsible
*	construction of the pumping station at Omafo	DWA
*	pipe materials	DWA
*	tender board exemption for the use of individual local contractors	DWA
*	finalize the designs and project proposal for approval	DWA
*	approval of the community contribution and payments by communities	WSSPOR
*	financing	French Emb.

5.1.4 Sanitation Construction

5.1.4.1 Sanitation for Schools

The principle to have one sanitation unit for each 100 student has proved unrealistic. The school having 1000 students and 20 teachers requires of 12 units construction. The construction time for such a complex is about four months. However, the school community's interest does not last so long. Therefore it is recommended that only 4 units latrines will be constructed for each school having affordable labour and sand contribution for the school community. If more units are required and the school community is ready to contribute, the construction can continue the following year. The sanitation construction programme has been done based on the applications received by the project. 29 schools will be provided with sanitation during 1994. The payments of installation of doors and seats have to be agreed of with the school principal before the toilet construction can proceed. See ANNEX 5.

long!

The project will continue the construction of ferro cement water tanks and sanitation facilities for schools jointly with UNICEF in the projet area according to the UNICEF's work plan. Work Plan not yet available. The project will provide transportation and supervision. UNICEF will provide materials and labour payments.

5.1.4.2 Sanitation for Clinics

All clinics in the project area have received sanitation facilities during 1993. During 1994 only some upgrading work will be carried out.

See

5.1.4.3 Sanitation for Private People

The project will continue the development of an affordable and acceptable private sanitation units in coordination and collaboration with other sanitation projects in the Region. The project will continue of selling latrines for private people at a cost covering the material, labour and transportation expenses.

5.2 Construction Capacity Building

5.2.1 Training of Local Contractors

5.2.1.1 Water Point and Sanitation Contractor Training

During 1994 the training of local contractors will continue mainly by rotating the contractors in several types of the construction sites. In the end of the year 1993 the project had 5 latrine contractors, 8 well contractors and 5 ferro cement tank contractors. Through the rotation programme the project will have 18 contractors capable for all required construction in the project by the end of 1994. The contractors will be trained for tendering and business management. See ANNEX 6.

5.2.1.2 Organizing Material Supply

If the payment of materials is to be carried out by the DWA, the tender board exemptions will be needed in order to use the services of local material supplier in the future project implementation. The tender board requires tendering and selection of lowest tender. It is very much possible that local suppliers are not able to compete on the National level. These principles have to be cleared before the development of local material supply can start. See ANNEX 6.

5.2.1.2 Organizing Transportation

The same applies for transportation as for material supply. See ANNEX 6.

5.3 Planning and Design

5.3.1 Preparation of a Water Supply and Sanitation Development Plan

The main purpose of the plan is to provide overall guidelines for the physical implementation of the project. The plan will be updated yearly.

The water supply and sanitation development plan management committee has been established for the supervision of the work.

5.3.1.1 The Environmental Impact Assessment Study

The EIA will be carried out mainly as the desk work using available maps and other studies carried out earlier. The study will assess the present stage of the environment and evaluate the possible impacts of the selected construction activities of the WSSPOR. The study shall also include proposals for the practical monitoring and evaluation procedure. See ANNEX 7.

5.3.1.2 Water Resources Assessment

The assessment will include the following reports:

+ surface water potential
+ shallow ground water potential
+ deep ground water potential

These reports will be ready before the end of 1993. See ANNEX 7.

5.3.1.3 Water Demand and Consumption Estimates

The water demand and consumption estimate calculations will be based on the Water Demand Norms of DWA and new census 1992. The estimates will be calculated for 10 years period. See ANNEX 7.

5.3.1.4 Water Supply Options and Unit Costs

The water supply options will be selected based on the low-cost technology and appropriateness for community water projects, using local construction capacity. The following options will be considered:

+ shallow wells with different water lifting systems
+ borehole wells with different water lifting systems
+ dams
+ rural piped water supply

See ANNEX 7.

5.3.1.5 Existing Water Supply Situation

The required inventories have been carried out during 1993. The report will analyze the problems, present water use and service level. See ANNEX 7.

5.3.1.6 The Water Supply Development Plan Interim Report and Implementation Programmes

The interim report is an executive summary of the above mentioned studies. Interim report also consists of recommendations for the areal implementation programmes. The implementation programmes will be revised, if necessary, after completion of the Environmental Impact Assessment Study. See ANNEX 7.

5.3.2 Preparation of Sanitation Development Plan

5.3.2.1 Sanitation Development Plan

The plan will include the description of present sanitation situation based on the inventories carried out during 1993. Options will be selected based on low-cost technology and local construction capacity. The implementation programme will include recommendations and resource and cost estimates for institutional and private sanitation construction. See ANNEX 7.

5.3.3 Preparation of Topography Maps

5.3.3.1 Topography Maps

The maps for the Engela Hospital catchment area will be completed during 1993 by the MT-Survey/Finland. It is also agreed that the Ground Positioning of the Eenhana area can be done during the first quarter of 1994. The payment will be done from Namibian contribution. If the funds will be made available the mapping will be completed during 1994. See ANNEX 7.

5.3.4 Monitoring and Information System

5.3.4.1 Development of Monitoring and Information System

The preliminary forms for the data collection have been developed. The continuation of the work will depend on the decisions done by the DWA regarding the system selection and the method of developing the system. See ANNEX 7.

5.3.5 Manuals

5.3.5.1 Shallow well Construction Manual
5.3.5.2 Latrine Construction Manual

The manuals will be prepared jointly with UNICEF. First draft will be ready in the beginning of 1994 and the manuals will be tested and developed based on the experience gained from the construction during 1994. See ANNEX 7.

3. LOGISTICS

Due to the heavy use of the project vehicles some of the oldest vehicles need to be replaced.

The procurement of some materials can be done through the DWA procurement system in order to utilize the reserved Namibian contribution fully during the 1994:

* cement
* tools
* pumps
* diesel
* pipes and pipe fittings
* etc...

The accommodation of projet staff in Ohangwena Region should be solved during 1994 in order to reduce daily driving between Ongwediva and Ohangwena thereby saving time for actual work within the community.

It is expected that telephone and fax services will be provided to the Ohangwena office during the year.
See ANNEX 8.

The cash flow estimate during 1994 is presented in ANNEX 9.

4. RISKS AND ASSUMPTIONS

The establishment process of multi-sectoral development committees will greatly depend on the activity of the Regional Council. The project can only facilitate and promote this development but it cannot take the responsibility for it.
It was decided by the SC that the SCDA shall work full time in the project at least for one year. If project's present SCDA will not accept the SC's decision, the project has to look for her replacement. If it comes to the replacement of SCDA, a long delay can be expected in implementing the community development activities.

The employment agreements of the PC, the PDA and the Project Accountant will all expire at the end of March 1994. Therefore it would be very important that the new PC and BDA could have at least one month overlapping with the old staff. If the overlapping can not be organized, there can be expected some months delay in the implementation of all project's activities.

The timely construction of Omafo-Eenhana rural piped scheme have the following assumptions and risks:

* pumping station at Omafo has to be completed first
* the community has to understand, accept and agree the principle of paying for water
* the tender board exemption has to be made available for the use of local builders (contractors) in construction
* French Government shall grant the funds for the construction

The implementation of Construction Capacity Building sub-project requires approval of the tender board exemption for the use of local suppliers and transportation entrepreneurs without national tendering system.

In order to implement the activities efficiently the accommodation of project staff in Ohangwena Region has to be solved. If project employees have to continue driving daily between Ongwediva and Ohangwena some delays can be expected and repair costs of the vehicles will increase.

WORK PLAN 1994

SUB-PROJECT: 5.1 COMMUNITY DEVELOPMENT

COMPONENTS: 5.1.1 Institution building and human resource development

OUTPUTS: 5.1.1.2 *Multi-sectoral* development committee system established and operating

ACTIVITY	TASKS	RESPONSIBILIES	INDICATORS	93 ND	94 J	F	M	A	M	J	J	A	S	O	N	D	95 J	F	M
Policy and srategy of the development committees accepted	Promote and facilitate the preparation of the policies and strategies	Councillors MT	Policy document																
	Promote and facilitate to organize necessary workshops	Councillors MT	Workshop report																
Identification of a pilot area	Identify one experimental area to test the implementation of development committees	Councillors	Name and place of the area																
	Promote and facilitate required workshops to explain the startegy to the community	Councillors MY	Workshop report																
Selection or election of development committee members for the pilot area	Facilitate in establishment process as required by the *Regional Councils*	HK, HM	Minutes of meeting																
Training of the Community Representatives/Water	Identify needs of training	HK, HM, MT	List of training needs																
	Prepare the content and the training programme	HK, HM, MT	Training programme																
	Carry out the training in the area the people are living	HK, HM, MT	Training reports																
Evaluation of the development committee system and the performance of the community representatives/Water	Design eavaluation criteries and evaluation forms	MT	Evaluation programme																
	Evaluation carried out and results adapted to the project implementation	MT	Report																
Implementation in other areas	Establish development committees for the project area	Councillors MT	Multi sectoral Development Committees Established and working																

Annex 1 (1/1)

WORK PLAN 1994

SUB-PROJECT: **5.1 COMMUNITY DEVELOPMENT**

COMPONENTS: **5.1.1 Institution Building and Human Resource Development**

OUTPUTS: **5.1.1.4 Development of Training Materials for Community Training**

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	93 N	93 D	94 J	94 F	94 M	94 A	94 M	94 J	94 J	94 A	94 S	94 O	94 N	94 D	95 J	95 F	95 M	95 A
Increase the awareness of the Communities regarding the Project and generally the use of water	Organize and analyze the existing posters and leaflets used in the project	HK, HM, LN, MT	Training material organized and catalogued in the project library																		
	Identify the need for the development of new materials	HK, HM, LN, MT	List of Needs																		
	Procure or contract with private artist the new required materials	MT	New materials available																		
Train the Water Point Committees	Analyze the Water Point Committee Training Manuals developed by the DRD/DWA	H.K, HM, LN	WPC Manuals in use by the WPCs and experiences listed			CONTINUOUS PROCESS															
	Participate with DWA in the WPC manual development as requested by DWA	HK, HM, LN	Worksop reports			IF REQUESTED BY THE DWA															
	Facilitate and promote the preparation of caretakers manual by participation	JH, MS, AH	Workshop reports			IF REQUESTED BY DWA															
Provide hygiene education taining for the school children and private latrine users	Organize three days workshop for the development of school hygiene package	LN, UNICEF, EAIHP, MHSS MEC, DAPP	Workshop report																		
	Prepare the materials as recommended by the above workshop	MT	Material available																		
	Develop general hygiene education package for private toilet users	LN, FS, UNICEF DAPP	Education package available																		
	Participate in the development of IEC material with UNICEF	LN, HM, HK	IEC material available			IF REQUESTED BY UNICEF															
	Facilitate the coordination of training material development in the Region	MT	Ad-Hoc Committee Meetings Extension Officer Working Group Meetings			CONTINUOUS PROCESS															
Evaluation of training materials	Make evaluation criterias	MT	Evaluation forms																		
	Carry out evaluation	MT	Report																		

Annex 2 (1/1)

WORK PLAN 1994

SUB – PROJECT: 5.1 COMMUNITY DEVELOPMENT

COMPONENTS: 5.1.1 Institution Building and HRD; 5.1.2 Community Mobilization; 5.1.3 Water Point Construction

OUTPUTS: 5.1.1.1 Management of WP facilities; 5.1.2.1 Awareness of the Community; 5.1.2.2 Establishment of WPCs; 5.1.3.1 Low cost Shallow Wells; 5.1.3.2 Boreholes

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	WEEKS 1	2	3	4	5	6	7	8	9
Identification of the place	Familiarize with the community	HK, HM	Contact persons are known									
	Agree the day of the first community meeting	HK, HM	Place and time for meeting organized									
Creation of Community awareness	Carry out social evaluation	HK, HM	Community awareness evaluated									
	Explain the aim of the WPC	HK, HM	Election of the WPC started									
Technical inspection	Survey of the WP site	JH, MS,	Construction Agreement with the community									
Establishment of the WPC	Organize the WPC meeting	HK, HM	WPC meeting has been held									
	Collect the names of the WPC members	HK, HM	Names of the WPC members recorded									
Construction of the Water Point	Finalize the digging of the well	Community	Well is ready for lining									
	Transport materials to the site	JH, MS	Delivery note signed by the WPC									
	Collect sand needed in construction	Community	Brick making can be started									
	Make the bricks	Community, Contractor	Lining of the well can be started									
	Lining of the well	Community, Contractor	Well ready for slab installation									
	Make backfilling	Community	Well ready for apron construction									
	Construct the slab	Community, Contractor	Slab has been installed									
	Construct the apron for the well	Community, Contractor	Water lifting system can be installed									
	Construct cattle trough	Community, Contractor	Cattle trough in use									
	Construct wash basin	Community, Contractor	Wash basin in use									
	Construct fence	Community, Contractor	Animals can not enter into the well area									
	Finalize the surrounding of the well	Community	Surrounding of the WP is clean									
Training of the Water Point Committee	Select and train people to maintain the WP	HK, HM, JH	WP is in good condition									
	Give hygiene and health training	HK, HM	Healthy community									
	Train community to use the WP Manual	HK, HM	WP is maintained and in good condition									
Handing over	Final inspection	MS, AH, HK, Community	Inspection report									
	Handing over ceremony	Project, Community	Handing over certificates signed									

WORK PLAN 1994

SUBPROJECT: 5.1 COMMUNITY DEVELOPMENT
COMPONENT: 5.1.3 Water Supply Construction
OUTPUT: 5.1.3.1 Shallow wells; 5.1.3.2 Boreholes

VILLAGE	WATER POINT TYPE	NAME OF THE CONTACT PERSON	CONSTITUENCY	9 3 N	D	1 9 9 4 J	F	M	A	M	J	J	A	S	O	N	D	9 5 J	F	M
Omatunda/ Amatundu	Borehole	Shoombe Kaupadwa	Eenhana																	
Onangolo	Borehole	Christian Shipunda	Eenhana																	
Epinga	Borehole	Johannes Shitumbabo	Eenhana																	
Epale	Borehole	Amakali Hainoongo	Eenhana																	
Egambo	Borehole	Anna Nangolo	Eenhana																	
Onaisati	Borehole	Mr Shifotoka	Eenhana																	
Ombaladila	Borehole	Adolf Hashikutuwa	Eenhana																	
Eehwa	Borehole	Headman	Eenhana																	
Ohaihana	Borehole	Headman	Eenhana																	
Ohainengena	Borehole	Mr Uutoni	Eenhana																	
Ondjengo	Shallow well	Gabriel Haingombi	Endola																	
Onelombo	Shallow well	Lungameni Iyambo	Endola																	
Ondjengo	Shallow well	Fritz Joseph	Endola																	
Etilashi	Shallow well	Jason Heita	Endola																	
Omaonde	Shallow well	Paulus Nghishakenwa	Endola																	
Eengwena	Shallow well	Naubundunga	Endola																	
Ouhongo	Shallow well	Elia Nashandi	Engela																	
Omatunda	Shallow well	Asser Shingeya	Engela																	
Omatunda	Shallow well	Johannes Simeon	Engela																	
Ouhongo	Shallow well	Petrus Shatumbu	Engela																	
Onghala	Shallow well	Mathias Shaapopi	Engela																	
Engela	Shallow well	Tobias Moses	Engela																	
Ongali	Shallow well	Jason Shitana	Engela																	
Omifitu Wanakashole	Shallow well	Matias Nakashole	Ongenga																	
Eenghoshi	Shallow well	Olavi Hamata	Ongenga																	
Engava	Shallow well	Leonard Hamaamba	Ongenga																	
Omifitu Wanakshole	Shallow well	Lukas Kamati	Ongenga																	
Enoleu	Shallow well	Hakapandi Ndahangwapo	Ongenga																	
Obobe Yomunghudi	Shallow well	David Nanhanga	Ongenga																	
Okahenge	Shallow well	Josephat Ndiliyowike	Ongenga																	

Annex 3 (2/2)

WORK PLAN 1994

SUB – PROJECT: 5.1 COMMUNITY DEVELOPMENT
COMPONENT: 5.1.3 WATER SUPPLY CONSTRUCTION
OUTPUT: 5.1.3.3 CONSTRUCTION OF OMAFO – EENHANA RURAL PIPED SCHEME

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	1994 – 1995 J F M A M J J A S O N D J F M
Formulate and agree main strategies and principles in rur piped scheme construction and finalize the designs	Decide responsibilities and coordination with DWA, French and WSSPOR	AS, PH, H. Koch	Minutes of Meeting (OCTOBER – NOVEMBER 1993)	
	Finalize the first draft design and prepare proposal for French Gov. for approval	Mr. Frindt	Design Document and Project proposal (NOVEMBER – DECEMBER 1993)	
	Discuss and develop the designs with local leaders and the community	Mr. Frindt, AS	Workshops organized with local leaders	
	Finalize the designs of the scheme according to the results of discussions	Mr. Frindt	Final design documents	
	Approval of the project by the French Government	French Embassy	Project Agreement signed	
Tendering and procurement of materials	Prepare tender documents, tenders, evaluate, make agreement with selected contractor	H.Koch, Mr. Frindt	Tender documents and Contract Agreement	
	Procurement of water towers, pipes, valves, fittings, etc.. and transport and store .	Contractor or DWA	Material at site stored properly	
Community mobilization and training of communities for carrying out works under their responsibility	Train Community Representatives to assist in community mobilization and training	MT, HK	Training programme	
	Selet and train trenching, pipe lying and backfilling teams for each banch pipeline	AH, JH, MS	team of 25 people for each branch line trained	
	Organize coommunity meetings to establish required water point committees	HK, HM, LN	Water point committee for each water point established	
	Select and train required caretakers, line patols and other technical personnel	AH, JH, MS	Caretakers for each water point trained	

Annex 4 (1/2)

WORK PLAN 1994

SUB – PROJECT: 5.1 COMMUNITY DEVELOPMENT

COMPONENT: 5.1.3 WATER SUPPLY CONSTRUCTION

OUTPUT: 5.1.3.3 CONSTRUCTION OF OMAFO – EENHANA RURAL PIPED SCHEME

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	1994 – 1995														
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Construction	Preliminary survey of pipelines, stand pipes with the community members	A.Nehemia, JH	Pipelines and stand pipes marked at site temporarily							▒								
	Technical survey of the pipelines, and standpipes, cattle troughs, water towers	DWA or the contractor	Final marks of lines and standpipes at site							▒								
	Bush clearing and ripping with buldozer	DWA	All lines cleared, bushes removed and hard soil ripped							▒								
	Digging of trenches, laying pipes and backfilling	AH, JH, MS	All pipelines installed and backfilled								▒	▒	▒	▒	▒	▒	▒	▒
	Construction of water points, cattle troughs, wash basins and water towers	Small contractors and the communities	All standpipes constructed including the water towers, cattle troughs and wash basins									▒	▒	▒	▒	▒	▒	▒
	Connecting, testing	Contractor DWA	Pipelines not leaking and water flowing through the whole system														▒	▒
Evaluation and Handing Over	Make evaluation report of each water point	AH, JH, MS	Evaluation Reports (APRIL – MAY 1995)															
	Handing over to the communities	AH, JH, MS, DWA	Handing over forms (APRIL –MAY 1995)															

Annex 4 (2/2)

WORK PLAN 1994

SUB – PROJECT: **5.1 COMMUNITY DEVELOPMENT**

COMPONENT: **5.1.1 Institution Building and HRD; 5.1.4 Sanitation Construction**

OUTPUT: **5.1.1.1 Management of sanitat. facilities; 5.1.4.1 Sanitation for schools**

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	W E E K S 1	2	3	4	5	6	7	8	9
Preparatory work	Technical Inspection	FS	Report									
	Agreement with school principal	FS	Signed Agreement									
Community Work	Digging	Principal/Community	Site inspection report									
	Collect sand and water	Principal/Community	Site inspection report									
	Mixing mortar	Principal/Community	Site inspection report									
	Making bricks	Contractor/Community	Site inspection report									
	Backfilling	Community	Site inspection report									
Contractor's work	Measurements	FS/Contractor	Site inspection report									
	Agreement with contractor	FS/Contractor	Agreement available									
	Transport of materials	FS/Contractor	Delivery notes									
	Brick making	Contractor	Brick available									
	Brick lining	Contractor	Site inspection report									
	Finishing work	Contractor/Community	Site inspection report									
Supervision Work	Evaluation	FS	Evaluation report									
	Handing over	FS/LN	Handing over report									
	Hygiene education	LN	Report									

WORK PLAN 1994

SUBPROJECT: 5.1 Community Development
COMPONENT: 5.1.4 Sanitation Construction
OUTPUT: 5.1.4.1 Sanitation facilities for schools

CONSTITUENCY	NAME OF THE SCHOOL	93 N	D	J	F	M	A	M	J	J	A	S	O	N	D	95 J	F	M
Ongenga	Ongenga Junior Primary School																	
	Shingunguma Combined School																	
	Okambebe Combined school																	
	Ongudi Combined School																	
Endola	Shikundule Combined School																	
	Ohalushu Junior Primary School																	
	Ehambelelo Combined School																	
	Onamahoka Combined School																	
	Omahenge Combined School																	
	Epoli Combined School																	
Engela	Ohaingu Junior Primary School																	
	Engela Senior Primary School																	
	Omutaka Combined School																	
	Uundjombala Senior Primary School																	
	Omundudu Combined School																	
Oshikango	Oumbada Combined School																	
	Onekuta Combined School																	
	Tuyoleni Junior Primary School																	
	Elao Junior Primary School																	
	Eembidi Combined School																	
Ohangwena	Ohangwena Combined School																	
	Etale Combined School																	
	Onakambuda Combined School																	
	Onamukalo Combined School																	
Ondobe	Onangwe Combined School																	
	Omungholyo Combined School																	
	Omutwewondjamba Combined School																	
	Eembachu Combined School																	
	Okauva Combined School																	
Endola	Omuve Senior Primary School																	
	Nanghonda Combined School																	
Engela	Oipya Combined School																	
	Epundi Primary School																	
Oshikango	Hamutenya Senior Primary School																	
	Onengali Combined School																	
Ohangwena	Ohangwena School Inspector's Office																	
	Okelemba Junior Primary School																	

WORK PLAN 1994

SUB-PROJECT: 5.2 CONSTRUCTION CAPACITY BUILDING

COMPONENTS: 5.2.1 Training of Local Contractors, 5.2.2 Organizing Material Supply, 5.2.3 Organizing Transportation

OUTPUTS: 5.2.1.1 Contracting Procedures and Contractors Training, 5.2.2.1 The Procurement, Storing and Supply of Materials
5.2.3.1 Transportation of Materials, Equipment and Personnel

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	93 N	D	1994 J	F	M	A	M	J	J	A	S	O	N	D	95 J	F	M	A
Organize training course in shallow well construction	Provide on-the-job training for 5 latrine contractors by well contractors	JH	Latrine contractors capable to construct shallow wells							▒											
Organize training course in ferro cement tank construction	Provide on-the-job training for well contractors by ferrocement tank contractors	FS	Well contractors capable to construct ferrocement water tanks				▒														
Organize training course in latrine construction	Provide on-the-job training for well contractors in latrine construction by latrine contractors	FS	Well contractors capable to construct latrines					▒													
	Provide on-the-job training for ferrocement tank contractors in latrine constr. by latr. contractors	FS	Ferro cement tank contractors capable to construct latrines						▒												
Organize training course for well and ferrocement tank contractors in piped water supply construction	Provide experimental training course to train the contractors and to check the quality	MS, JH	Contractors capable to construct necessary facilities for piped schemes							▒	▒										
Organize business management training	Design the training course for all contractors in business management	BDA	Training programme								▒										
	Carry out the training course	BDA	Contractors able to give quotations and organize materials to the site									▒	▒								
	Prepare business management manual for the contractors' use in business management	BDA	Manual										▒	▒							
Evaluations	Evaluate the technical performance of the contractors	AH, MS	Evaluation Report												▒						
	Evaluate the management performance of the contractors	BDA	Evaluation Report													▒					
Assessment of available business services and the availability of required materials as well as transportation	Prepare the questionaires	BDA	Questionaires						▒												
	Carry out the inventory	BDA	Report							▒											
Prepare the procurement procedures	Design all agreement forms, delivery notes, payment forms, etc...	BDA	Forms								▒										
	Traing the project personnel to use the agreed procedures	BDA	Project staff aware and able to use the system									▒									
Evaluation	Evaluate the performance of the procurement material supply and transportation	BDA	Evaluation report															▒	▒		
	Revise the procedures according to the evaluation results	BDA	Revised procedures																	▒	▒
Logistics	Provide in-service training for the Assistant Accountant in logistics	BDA	Assistant Accountant capable to take over the project accounts						▒		▒		▒		▒		▒		▒		
	Evaluate the performance of the Assistant Accountant to take over the duties	BDA	Evaluation report																	▒	

Annex 6 (1/1)

WORK PLAN 1994

SUB-PROJECT: **5.3 PLANNING AND DESIGN**

COMPONENTS: **5.3.1 Preparation of Water Supply Development Plan ; 5.3.2. Preparation of Sanitation Development Plan**

OUTPUTS: **5.3.1.1 EIA study; 5.3.1.2 Water resources assessment; 5.3.1.3 Water demand est.; 5.3.1.4 W/s options; 5.3.1.5. Existing w/s situation; 5.3.1.6 WSDP; 5.3.2.1 SDP**

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	93 ND	1994 J F M A M J J A S O N D	94 J F M A
T.O.R. for EIA study	Prepare T.O.R. for EIA	HP	Proposal for T.O.R of EIA			
	Submit T.O.R of EIA for approval by Finnida	Finnida	Comments from Finnida			
	Finalize T.O.R. of EIA and aks tenders	HP, AS	Quotations have been received			
	Evaluate and select of an Environmentalist	HP, AS	Environmentalist has been selected by SC			
Characteristics and trends of existing environment	Carry out desk study	Environmentalist	Desk study report			
	Carry out field survey	Environmentalist	Survey report			
Assesment of applicable technology	Evaluate working methos	Environmentalist	Evaluation report and recommendations			
Recommendation for environmental considerations of the project	Prepare quidelines for water supply and sanitation construction	Environmentalist	Guidelines in use			
Monitoring programme	Prepare the proposal for the monitoring programme	Environmentalist	Monitoring system proposal			
Water resources assessment	Evaluate surface water resources	Interconsult	Surface water potential report evaluated by DWA			
	Evaluate shallow water resources	Interconsult	Shallow water potential report evaluated by DWA			
	Evaluate deep ground water resources	Interconsult	Deep ground water potential report evaluated by DWA			
Existing water supply situation and water use in the rural area	Assess rural pipe water supply coverage	HP	Summary of rural pipe water sypply coverage			
	Assess rural point water supply coverage	HP	Summary of rural point water supply coverage			
	Prepare maps of existing pipe and point water supply system	HP	Maps from existing water supply situation			
Water demand calculation	Assess present and future population	HP	Population forecasts			
	Assess present and future livestock	HP	Livestock forecasts			
	Calculate water demand	HP	Assessment of present and future water demand			
Water supply options	Evaluate rural water supply systems	HP	Recommendations for rural water supply system			
Water Supply Development Plan	Prepare development programmes	HP	Development programmes			
Sanitation Development Plan	Assess existing rural sanitation situation	HP	Summary from the existing rural santation			
	Evaluate sanitation systems	HP	Recommendations for rural sanitation system			
	Prepare sanitation construction programme	HP	Sanitation construction programmes			
Updating of the WSSDP	Incorporate the EIA study results into the WSSDP	Consultant	Updated WSSDP			

Annex 4 (1/2)

WORK PLAN 1994

SUB–PROJECT: **5.3 PLANNING AND DESIGN**

COMPONENTS: **5.3.3 Preparation of Topography maps covering the whole project arae; 5.3.4 MIS; 5.3.5 Development of manuals; 5.3.6 Progress reports and annual work**
OUTPUTS: **5.3.3.1 Topography maps for the whole project ara ;5.3.4.1 Monitoring system; 5.3.5.1. Shallow well manual; 5.3.5.2 Latrine const. manual; 5.3.6.1 Annual work plan; 5.3.6.2 Monthly, and quarterly and progress reports**

ACTIVITY	TASKS	RESPONSIBILITIES	INDICATORS	93 ND	1994 J F M A M J J A S O N D	95 J F M
Topography maps for the whole project area	Prepare maps for Engela Hospital catchment area	MT–Survey	Maps are available			
	Prepare ground controll network for the Eenhana constituency	Consultant	Approval by the SC and DWA required before the work can start			
	Prepare maps, if funds available	Consultant	All maps are available from the project area			
Monitoring system	Finalization of input forms	AS, DWA	Monitoring system in use			
	System Development, if funds available	DWA	Programme			
	Data collection	All Projects	Filled input forms			
Shallow well and latrine construction manuals	Pilot test of the manual	MS, UNICEF	Technical repot is ready			
	Pilot test of the manual	MS	Technical report is ready			
	Develop shallow well manual	MS, SK	Manual is under test			
	Develop sanitation manual	SK	Manual is under test			
	Update shallow well and sanitation manuals	MS, SK	Manual in use			
Annual work plan	Prepare annual work plan for 1995	PC	Work plan approved by SC			
Monthly, Quaterly and annual progress reports	Prepare monthly report	PC	Report has been delivered			
	Prepare quarterly finance report	PC	Report has been delivered			
	Prepare annual progress report	PC	Report has been delivered			

Annex 4 (2/2)

WORK PLAN 1994

SUB-PROJECT: LOGISTICS

COMPONENTS: Procurement, Office, Accommodation and Staff Training

OUTPUTS: Materials Procued, Accommodation, Office Facilities in Order, Staff Paiformance Improved

ACTIVITY	TASKS	RESPONSIBILITES	INDICATORS	93 N	D	1994 J	F	M	A	M	J	J	A	S	O	N	D	95 J	F	M	A
Procurement	The vehicle N 71549 W will be sold and one new pick-up will be procued	PC	Money of the car N 71549 W received and new car in use																		
	Cement, steel, drilling materials, tools, diesel handpumps will be procued by the DWA	PC, Chief Engineering Services Division	Materials available in stores			CONTINUOUS ACTIVITY															
Accommodation	Four houses in Ohangwena Region rented or constructed (PC, BDA, 2 JCDA)	PC, Chief Engineering Services Division	Field staff accommodated in the Ohangwena Region																		
Training	Organize accountant training course for the Assistant Accountant	BDA, MT	Certificate issued (max 2 months)																		
	Secretariat training couse for the Clerk	PC, MT	Certificate issued (max 2 weeks)																		
	Organize general personnel management courses for the key staff	PC, MT	Certificates issued (2 days workshop)																		
	Organize computer training in the use of Word Perfect and Lotus for the staff	PC, Trainer	Certificates issued (one week/ each)																		
Personnel Management	Clarify and organize the Workman's Compensation for the contractors (if possible)	PC, MT	Contractors covered by Workmen's Compensation (if possible)																		
	Clarify and organize the Medical Scheme for the staff if feasible	PC, BDA, MT	Staff having a Medical Scheme (if feasible)																		

Annex 8 (1/1)

CASH FLOW ESTIMATE, 1994

FC's Cost code	Job No. cost code	Client's cost code	Description	I Quarter FIM	II Quarter FIM	III Quarter FIM	IV Quarter FIM	Total FIM
			Consultant's fee	**630,800**	**814,500**	**598,200**	**814,500**	**2,858,000**
1	5	1-9	Project Coordinator					
1	5	1-9	Field Coordinator Manager					
1	5	1-9	Business Development Advisor					
1	5	1-9	Water Supply Advisor					
1	5	1-9	Senior CDA					
1	5	1-9	2 Junior CDA's					
1	5	1-9	Environmentalist					
1	5	1-9	**Reserv. short-term experts**				**200,000**	**200,000**
1	5	1-9	**Project coordin. in Finland**	**82,000**	**83,000**	**82,000**	**83,000**	**330,000**
2	6	1-9	**Recurrent costs/Finland**	**15,000**	**20,000**	**15,000**	**20,000**	**70,000**
2	7	1-9	**Reimbursable TA costs**	**100,000**	**25,000**	**50,000**	**25,000**	**200,000**
			Community Development	**520,000**	**710,000**	**955,000**	**645,000**	**2,830,000**
4	9	2-8	Training materials	5,000	10,000	10,000	5,000	30,000
4	11	2-8	Training courses	20,000	80,000	80,000	20,000	200,000
4	13	2-8	People's participation	10,000	15,000	20,000	5,000	50,000
3	15	2-8	Construction materials	300,000	400,000	500,000	300,000	1,500,000
4	17	2-8	Construction consumables	125,000	125,000	125,000	125,000	500,000
5	19	2-8	Contractors	50,000	70,000	200,000	180,000	500,000
5	21	2-8	Operation & maintenance	10,000	10,000	20,000	10,000	50,000
4	23	2-8	**Constr. Capacity Building**		**20,000**	**60,000**	**70,000**	**150,000**
			Planning and design	**380,000**	**60,000**	**10,000**	**10,000**	**460,000**
5	25	2-8	Design materials	10,000			10,000	20,000
5	27	2-8	EIA/information		10,000	10,000		20,000
5	29	2-8	Local consultancy reservation	50,000	50,000			100,000
4	31	1-9	Completion of mapping	320,000				320,000
			Others	**227,000**	**303,000**	**204,000**	**221,000**	**955,000**
5	33	2-8	Local salaries	150,000	160,000	160,000	180,000	650,000
5	35	2-8	Office costs	70,000	35,000	37,000	33,000	175,000
3	37	1-9	Investments (vehicles, equipment)		100,000			100,000
5	39	2-8	Miscellaneous	7,000	8,000	7,000	8,000	30,000
			Total	**1,954,800**	**2,035,500**	**1,974,200**	**2,088,500**	**8,053,000**
			Government of Namibia	**470,000**	**300,000**	**300,000**	**300,000**	**1,370,000**
			Government of Finland	**1,484,800**	**1,735,500**	**1,674,200**	**1,788,500**	**6,683,000**
			Community	**250,000**	**250,000**	**250,000**	**250,000**	**1,000,000**

Annex 9 (1/1)