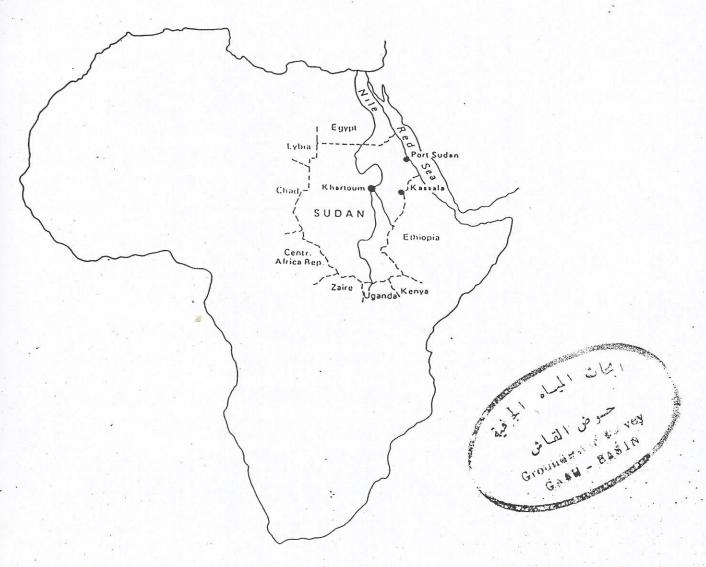




Kingdom of The Netherlands Directorate General for Development Coöperation

Kassala Area Development Activities



PROGRESS REPORT NO. 13

4th quarter 1986 (period 1st October-31st December)

TABLE OF CONTENT

	Page
PROGRESS REPORT NO. 13	
List of abreviations	3
1. General	4:
2. Progress KADA programme activities	6
3. New PMR activities in the 4th quarter	. 7
4. KADA staff	7
5. Reports	[8]
6. Missions and contacts	8
7. Financial overview 1986	10
APPENDICES	
Appendix 1 : Status of all KADA projects	12
2 : PMR Project Activities	13
3 : Sector Agriculture	16
4 : Sector Rural Water Supply	24
5 : Sector Other Activities	34
6 : Dev. and Planning Strategy 1987-90	38
7: List for distribtion of progress report	

LIST OF ABREVIATIONS

BKS	*** *** *** *** *** *** *** *** *** **
and the state of t	Worldwide air and ground surveyors, United Kingdom
CARE	- Inditional All Urpanication
DEMAS	Dredging, Engineering and Management ct. 1:
DHV	Dutch Consultancy firm which implements win.
DSRC	Development Studies and Research Center
FAO	Food and Agriculture Organisation
GDAC	Gash Delta Agricultural Corporation
- IBRD	International Park 6
ILO	International Bank for Reconstruction and Development
IHS	
ISS	Institute for Housing Studies, Rotterdam
KADA	institute for Social Studies
KDC	Kassala Area Development Activities
	Massala District Council
MDC	Management Development Center, Khartoum
NBS	New Danat South
NEC	National Electricity Corporation
OXFAM	International Aid Organisation
PEWC	Power, Electricity and Water Corporation
PMR	Programme Management Responsability
PS	Public Service
RAW	Regional Administration
SRC	Regional Administration for Water Swiss Red Cross
SWD	Ctor A Course
TNO	Stork Werkspoor Diesel Company
UNHCR	Institute for Applied Scientific Research
UNICEF	billied Nations High Commissioner for D.c.
VES	Diffed Nations Unliden Fund
The state of the s	Vertical Electric Sounding
VSO	Voluntary Service Overseas
VU	Free University.Amsterdam
WADS	Waterresources Assessment and Dev in Illia
WHO	World Health Organisation
WS	Water Supply

PROGRESS REPORT NO 13 Period 1st October to 31th December

1. General

The 4th quarter has been dominated by the activities surrounding longterm planning of the KADA program for the period 1987/89. planning activities started with a letter to the Governor and to all Directors-General, Directors and Managers actively involved in KADA projects in the Aroma and Kassala districts. In a meeting of the Governors Council the need of a long term planning and the use of a yearly workplan was discussed. During the month October the concerned Ministries and District Councils identified and formulated project proposals internally within the sectors agriculture, rural water, health and technical education. In November detailed discussions took place with the KADA staff and the individual ministries on the proposals submitted. During the meetings only project outlines were discussed to assess the feasibility of the proposals and to make a budget estimate on the basis of a project implementation period of three or more years. Details of the project proposals, their background description and economic justification is to be worked out and operationalized in the workplan for 1987. Some of these workplans for 1987 have been formulated by the ministries in December 1987. The final discussions on these workplans for 1987 proposals have been postponed due to the absence of the KADA technical staff before the seminar on December 17,1986.

The seminar workplan 1987 was organised as a growing priece of the planning process. The purpose of the seminar was twofold:

a- to discuss policies, priorities and planning of KADA activities for 1987,

b- to exchange information and coordinate development activities between the regional authorities.

Each ministry involved in KADA projects presented a paper at the seminar covering the following subjects:

- 1. General policies for the ministries as formulated for the long term planning,
- 2. Priorities for the ministry as formulated for 1987,
- 3. <u>Implementation policy</u> for the ministry for the workplan 1987 concerning the manpower and development budget,
- 4. Strategy for the implementation of the proposed activities in 1987, time and target planning.

After the opening of the one day seminar by the Governor of the Eastern Region, the address by the head of the Dutch delegation of the bilateral consultations on development cooperation between the GOS and the GON and the address by the Charge d'Affaires of the Netherlands Embassy, the proceedings of the seminar started with the introduction paper presented by the regional Ministry of Finance and Planning (see appendix 6). After breakfast papers were presented by the sectors rural water supply, agriculture, health and technical education. A panel discussion was held immediately after the presentation of the paper. During the seminar a display on waterspreading and infiltration basins was explained to the participants of the seminar.

The seminar was intended for semior staff only and was well attended with 60 participants. The papers and comments during the panel

Gromana vey GASN - BASIN

discussions will be published by KADA in the first quarter of 1987.

Progress of the program activities in the sectors is reported in the appendices. Progress in some of the ongoing program activities is lacking as some projects need further reformulation of its objectives and others are still pending approval. For the not yet approved 'Third project, which deals with the new set up of and assistance to Option' the KDC workshop, meetings have been organised to start to discuss preparatory actions. A visit has been made to the Sudan Rural Development Company to discuss the options on the legal status of the future workshop as a Government corporation or a Government company. for the establishment of the new workshop has been formed, consisting of two permanent members of the KDC (Senior Administrator and Senior Engineer) with advisor members to be adopted when necessary and two permanent KADA members. Meetings will be held fortnightly to plan the organisational set up and discuss the investigations on the legal status, position and training of the present and future staff and the future renumeration policy. An inventory has been made of all KDC and KADA equipment and vehicles. A start has already been made to clear the KDC workshop yard and sell the old vehicles.

KADA continues to assist the PEWC and the powerstation. A one time funding of one million guilders has been given to purchase pipelines and pumps for the Massala town water supply. Discussions have been held in Khartoum between NEC and SWD concerning the causes and financial liability related to the breakdown and replacement of the turbochargers of the generators in the Kassala powerstation.

KADA used the opportunity of the presence of BKS Surveys for making aerial photographs for the World Bank study on the Gash Delta, to make a set for the border area planned to be covered by the waterspreading and the water supply program of KADA.

Preparations for the implementation of the Garb el Gash water supply program has started with the planning of a population research to start in January. Present population estimations of the village vary from 12,300 (Census 1983) to 25,000 (Garb el Gash W.S.proposal 1986) to 35,000 (Interim report University of Khartoum/Free University A'dam, 1986). Using the aerial photograph of the Garb el Gash village the existing road plan will be made on the basis of which a plot and household enumeration will be made. Also pannel discussions and a sample survey on wateruse will be carried out with the assistance of students of the El Ahfad College in Khartoum and four on temporarily basis, locally hired female interviewers.

During the fourth quarter six staff members of the ministry of agriculture attended a programme of in-service training for regional and sub-regional development planning at the Development Studies and Research Center in Khartoum. The four courses, lasting two weeks each, are intended for middle level professionals working in regional ministries, in regional branches of parastatal agencies and those involved in the management of special agricultural projects. The courses cover: rural development planning, data management and analysis, project identification and planning, and project management. All courses will be repeated in the period January - April 1987, for which KADA requested 20 places to be reserved.

Pending the final comments on the New Banat South study, two candidates have already been identified by the Ministry of Housing and Public Utilities to attend two five months courses at the Institute for Housing Studies in Rotterdam.

In October the FAO together with CARE organised during three days the first social forestry extension workshop for the Eastern Region in Kassala on the occasion of the opening of the new forestry extension center.

During the fourth quarter Ms. Anneli Hubach joined the KADA program as Public Service Expert to start on 1 January 1987 From November 22 till December 10,1986 Mr. Cosijn, agronomist, has been on leave. In the same period Mr. Homs, water supply expert, left for Holland from November 10 till December 13,1986.

On request of the police Mr. Gabbir Hussein has been asked to keep a movement book on the KADA expatriate personnel whenever they move outside the Eastern Region.

Ms. Marlies de Leeuw, trainee (agriculture), left KADA after a very succesfull and productive stay of 6 months.

2. Progress KADA Programme activities

Of the 5'81-'82 projects the last project Kassala WS received a boost through a one million guilders grant for the further extension of the Kassala WS system.

Of the '82-'83 programme, 10 projects are finalized of which four (Mokram, Kormuta WS, RAW drilling rig and the Expansion dairy farm) continue to receive KADA attention because of maintenance and/or project performance monitoring. Progress of the last ongoing project Salem Aleikum received a severe set back with the very poor waterquantity test results of the boreholes. Before continuing with this project a redefinition of the project objectives seems unavoidable.

Of the 14 '83-'84 projects, ll are already finished. One project (Tajuj treeplantation) makes steady progress, one (Kassala drainage) is at the end of its spending ceiling, and one (Dairy production development) is in the process of redefinition.

Of the 8 '84-'85 projects ,5 are finished including the recruitment of KADA staff and additional PMR project funding. Progress on the Health workers school is adequate and the project is anticipated to be finished in the next quarter. Rural water supply project II has been completed with a small budget left. The rural education improvement scheme is still under redefinition pending the arrival of the Public Services expert in the KADA team.

Of the 11 '85-'86 projects,6 are finished. One project Wad Sherifei) has been delayed but is now making steady progress with the fulltime involvement of the KADA trainee. The practical education project is still under consideration, awaiting a final assessment of the Public Services expert.

Of the 6'86-'87 project proposals three projects (PS expert, Mobile Maintenance Unit and Garb el Gash W.S.) has been approved. The PS expert will join the KADA team starting January 1st, 1987. Approval for the rehabilitation of the KDC workshop ('Option Three') is still pending. The Gash Delta Forestry project has already started with PMR funding but is now also approved pending the commitment of the GDC to maintain the feeder canals. Proposals for the Gash Delta WS is presently being reformulated with the assistance of WADS.

In appendex 1 a summary is presented of all KADA activities since 1981-'82 including the PMR project activities.

3. New PMR activities in the 4th quarter

The following new PMR projects are being executed:

PMR 36 : Seminar Workplan 1987 PMR 37 : BKS Aerial Photography

PMR 38 : IHS Course PMR 39 : MDC Course

PMR 40 : Pre-feasibility Study for infiltration basins

4. KADA staff

During the reporting period the KADA staff consisted of 25 local staff, 5 expatriate staff (with a total of 5 dependents) and 2 trainees. Two senior local staff are seconded, one from the Ministry of Finance and Economic Planning and one from the Kassala District Council.

<u>Sudanese Personnel</u> (under KADA contract or seconded)

Name	Function	Office
Gabir Hussein Ikhlass Hussein Abd.Haliem Balla Elnur Hassan Abdul Fadil Idris Adam Mohd. Giorm.Tesfi Maryan Ogbaldet Nur Kidane Mohd.Hassan M.Taha Hassan Ali Mohd. Ogbazghi Ibrahim Kurban T.G.Kudus	Progr.Coordinator/Counterpart Secretary/Counterpart Soc.Aff. Office assistant / translater Gardener staff houses Office watchman Office / guesthouse cook Driver Programme Manager Driver Programme Coordinator Driver Agronomist Driver Rural water expert Duty driver office	KADA Office
Abd.Ali Hamdi Mohd.Bakheet Arey Zecarias Abbabh Ogbay Elmas Halley John Saroba Aisa Ali Ahmad Mohd.Idris M.Beshir	Watchman return oil collection Gardener guesthouse Watchman guesthouse Guesthouse housekeeper Guesthouse housekeeper Cook guesthouse Watchman maintenance ward	O.coll.point Guesthouse Maint. yard

Mascal Gabro Storekeeper Workshop
Abaker Ahmed Mohd. Car mechanic
Abd. Ahmed Ismayel Car mechanic
Must. Ahmed Sharif Car mechanic
Hus. Adam Elhaj Ham. Blacksmith / welder
Ahmed Assadiq Ahmed Assistant storekeeper

Workshop

Expatriate personnel

Hans de Vries Herman Achterberg Guus Cosijn Martin Homs Han Petri Ignaas de Jong Programme Manager Administrator Agronomist Rural Water Expert Workshop Adviser Trainee (RAW)

KADA Office

Min.Agric. RAW KDC

5. Reports

The following reports are submitted during the reporting period :

- KASSALA: New Banat South, Reactivation of building activities in a rural town, DHV, November 1986
- Activities, structures and bottlenecks within the rainfed agriculture
 A case study of El Mariya, Marlies de Leeuw, December 1986.

6. Missions and contacts

Jo Caraher, Ulli Roething

John Michel, Lee Hart/CARE

Piet Beekman/TH Eindhoven

Kamal Koulis, J.B. Borton,

H.J.Goris/World Bank

John McNally/BKS

The following persons contacted KADA during the reporting period:
Name/Organisation Period Purpose visit

October

December

/SRC
P.C.Pooran, Syed Faisal
/ILO
Donald McCready/VSO
Deborah Bryceson, Ibrahim November
Elbagir, Abdel Raouf/ILO,
Salem Abdalla/Min.of Lab.
Colin R.Payne/Mercy Corps
J.van Nieuwkoop, D.T.de
Vries, A.Kramer/Euroconsult,
C.H.Swan, J.R.Sansom/Sir
Alexander Gibbs & Partners

Project identification
Project formulation rural
dev., voc. training and
income gen.act.for women
Water project manager
World Bank study

Consultancy voc. training

· Health planning

Forestry program Gedaref Aerial photography Urban Planning Gedaref Identification mission Faisal Mustafa, Widad Abdul el Mutaab, Zinab Mohy Eldin Hassan/Min.of Fin.and Plan. Richard Hagg, Zeremariam Fre/OXFAM
M.M.v/d Gaag, H. Kroon, P. de Groot/DGIS, P.C. Feith, A. van Loopik, W.J. Plantinga/Neth. Embassy
H.J. Lobeek/DHV
Verona Kuchol/SRC

Eastern Regional planning desk in Khartoum

Project ident.mission for dev.plan.unit Port Sudan Seminar Workplan 1987

Seminar and KADA disc. Project identification

Financial Overview for KADA projects the year 1986

					-						
	:	3	otal budget beginning 1.	=	1 -1 -1986	:Dt	Exper	:L	s =	1	lance in - 1 -1987 - *
K <u>DC</u> : Rainw_ drainage	:1983 -	:	890,000	:	409,499	: 1	7,547	=	113,151 :	: 4	278,801
<u>Education</u> : El Marya Conn , centre	:1983 -	:	72,000	:	28,430	2.	_	:	5,000		23,430
<u>Ministry of Finance:</u> Salem Aleikum	:1982 -	2	900,000	:	500,400	: !	6,222	:	148,946		433,530
<u>Health</u> : Healthworkers School	:1986 -	:	150,000	1	150,000	Ξ	-	:	134,085	:	15,915
H <u>ousing:</u> New Banat South Study	:1984 -	Ξ	61,000	:	30,947	Ξ	PM	:	1,747	:	29,100 7
Drilling and Testin Unit	: :1982 - :1983 - :1983 -	:	476,000	:	PK Z 2,897{ 60,290	-): :	35,655 27,144 -	:	170 3,290 -	: 2 : 2	PM 2 33,331 (60,290
Agriculture Exp. Kassala Poultry Far Revival Mokram Tree Plantation Expansion Dairy Farm Dairy Prod. Development	:1982 - :1986 - :1983 -	: :	450,000 331,900 286,000	=	2,855 18,500 151,407 43,005 348,168	:	- 76		: 10,510 : 82,575		7,990 68,756 40,408
Total		:	5,835,990	: :	1,982,116	:	158,587 +PM	- ;	542,730	:1	,316,624 +PM

Financial Overview for PMR Projects the year 1986

No.	: Project :	:			:	Budget i Beginnin Ls	g :	1 - 1	-1986:	Dfl.	: Ls	:	Balance in 1- 1- 1987 Dfl. *
3	: Oil coll. Point	:	1983	_	:	6,000	:	Z 4,080	0 :	- :	1,430	:	Z 5,510
7	: KADA Brochure												
20	: AME Course												
21	: Toy Production												2,003
22	: Kormuta Treeplant.	:	1986	-	:	12,000	:	-	:	-	12,047	:	2 47
23	: Kormuta Pumps	:	1986		:	26,949	:	-		15,620		:	11,329
24	: Hort.Nursery Well	:	1986		:	10,000	:	-	:		10,908	:	Z 908
25	: Spare Parts Vehic.	:	1986	-	:	Incl. in	fin	ancial	review	KADA exp	erts cars.		
26	: Gash Delta Forestry	:	1986		:	50,000	:	-	:	- ;	26,019	:	23,981
27	: Tickets Ext. Course	:	1986		:	8,000	:	_		-	: 8,380	:	7 380
28	: El Shokrya W.S.	:	1986	-	:	15,000	:	-	:	- ;	14,383	:	617
29	: Photocopier Reg.Adm	.:	1986		:	5,000	:		:			:	5,000
30	: Higher Sec.Sc.W.S.	:	1986		:	20,000	:		:		626	:	19,374
31	: Rehab.Powergrid	:	1986	-	:	30,000	:		:				28,344
32	: Landcultivation	:	1986	-	:	10,000.	:				10,300	:	Z 300
33	: DSRC Courses	:	1986		:	9,000	:		:		: ,585	:	8,415
34	: Hort. Running Costs	:	1986		:	11,500	:	_	:		2,000	:	9,500
35	: Maint.Yard R.W.S.	:	1986	-	:	10,000	:						8,454
36	: Seminar Workplan '8	7:	1986	-		5,000	:	-	:				1,201
	Total				: :	252,249.	:	1,50	 62 :	15,620:	105,618	:	110,873

^{*} Ls 1 = Dfl. 1

Appendix 1: Status of All KADA Projects

: Project : : Excl.Non-KAD	Finished A :(before January 19		going	:	Completed	: Unde :	r -consideration	:	Ni :	r.:
:1981-'82	: 5	:	-	:	-	:	-	:	5	:
:1982-'83	: 6	: Salem /	leikum(4)	*:		:	-	:	1	1:
:1983-184 :	: 11		Treeplant. Trod. Dev. Drainage	: :	<u>-</u>	:		:	1	4 :
:1984-'85	: 5	: Rural (1.5. 2	:	Healthw. School	:Rural	Ed. Impr. Sch.	:	8	:
:	: Land Cultivation : Feas.Study Onion Fa : Green Mission : Gash Delta Hafirs : N.B.S. Study 2 : KADA/PM General 3	.: Field 1	strator 1			:Pract	Ed. Programme	: : : : : : : : : : : : : : : : : : : :	1	1:
:1986-'87 : :	: : : :	:Public : :Garb El :Kassala	Maint. Unit Gerv.Exp. 1 Gash W.S. W.S. Pipes General 4	:		:KDC	Delta Forestry *: Third Option Delta W.S.	t : : : : : : : : : : : : : : : : : : :		9
100% Equipment KADA staffmen- ber (fulltime) Other Projects	: 8	:	1 6 12	: : : :	1	:	- 5		: 1	7 14:37
=======================================	: 33	:	19 =======	:	1	:	5	===	:=:	58 ==:
PMR Projects	: 23	:	16	:	1	:	2	:	: '	42

^{*} Expension Dairy Farm, Revival Mokram, Kormuta W.S., KADA Drilling rig - Projects are finished but still receiving KADA attention.

^{* *} Bending commitment of the Gash Delta Corporation for maintenance

Appendix 2 PMR Project Activities

The following Project Management Responsabilty (PMR) projects are still ongoing or are newly proposed and implemented during the reporting period:

PMR 21 : Toy Production

Budget: Ls.5000.- (plus Ls.25,000.- private donations)

Fabrication of toys continued especially counters and prototypes of cars and blocks. Progress is less than expected due to illness of the craftsman. The vocational training centre is started with the production of wooden schildren steps and wooden blocks and clocks. Distribution of the final batch of toys, mainly Lego and Duplo will take place in the last quarter of the year. New toys have arrived with the last container and have been distributed to the schools.

PMR 22 : Kormuta treeplanting

Budget : Ls.12,000.-

A pilot activity for planting shade and fruittrees and for introduction of fuel efficient stoves around schools and community centres, involving teachers school children and women.

KADA and FAO cooperate in this project. No further progress reported since last progress report.

PMR 23 : Kormuta pumps

Budget : Ls.15,000.-

The electricity supply has caused damage to the pumps in the past. In order to improve the situation, modifications to the electrical installation have to be made. The design has been prepared in the Netherlands. Spare pumps have been ordered and will be installed with the arrival of the container. Local contribution is Ls.9,000.—, which makes the total project costs Ls.24,000.—.

PMR 25 : Workshop spareparts (revolving fund)

Budget : Ls.100,000.-

This project functions as a revolving fund from which spareparts can be purchased in the Netherlands. The spareparts are resold to the regional departments with KADA vehicles and KDC customers.

PMR 26 : Gash Delta Forestry

Budget : Ls.50,000.-

In anticipation of the formal approval of this project proposal, funds have been used from PMR sources to start up some small activities of this project, especially the establishment of the nursery and shelterbelts in Aroma district. Activities at the nursery have started in April and the shelterbelts have been implemented and planted with seedlings. Approval of the whole project has been given pending the written undertaking by the GDC to maintain the feeder canals.

PMR 28 : El Shokriya Water Supply

Budget: Ls.15,000.—
The installation of the pump and diesel engine and the construction of a 12 meter reservoir with a public tap system has been finalized. The opening of the water facility is awaiting proper fencing. The population of El Shokriya have provided the pump and the engine and an aditional Ls.12,000.— for the installation.

PMR 29 : Photocopier Regional Administration

Budget: Ls.5,000.The supply of a photocopier with spareparts will enable the regional government to function more effectively. Charges per copy will be made on cost basis to the departemental users only.

PMR 30 : Higher Sec. School for boys

Budget: Ls.20,000.—
The only secondary boarding school in Kassala has no watersupply due to their broken down watersupply. KADA is assisting to rehabilitate the system. Electric soundings have been carried out on the premisses in order to identify a low yielding borehole. The existing high yield borehole has been sold to the PEWC for public supply. Assistance will also be given to have appropriate storage capacity. Two boreholes have been drilled but no water has been found sofar. The headmaster is not interested to get a connection with the town water supply.

PMR 31 : Visit Cramer
Budget: Ls.30,000.This visit will be the last one for the final assistance of the rehabilitation of the electric powergrid. When all preparatory work has been carried out by the PEWC the visit is now anticipated to take place in the first quarter of 1987.

PMR 33 : Management Course DSRC Khartoum

Budget: Ls.9,000.—
The Development Studies and Research Center in Khartoum, with the assistance of the ISS in the Hague, organises 4 courses (1 — Rural Development Planning, 2— Data Management and Analysis, 3— Project Identification and Planning, and 4— Project Management) for a period of two weeks during the period October-December 1986 in Khartoum for participants from all regions. Sofar KADA has applied for six places in the four courses provided.

PMR 34 : Running costs Embassy project for Horticulture

Budget: Ls.11,500.—
This is a continuation of the running costs of an embassy project which stopped its assistance according to plan om 1.7.1986. Pending the agreed payment of the running cost by the ministry of Agriculture KADA is assisting for a period of maximum 3 months.

PMR 35 : Maintenance yard rural water supply Budget : Ls.10,000.-

With the approval of the mobile maintenance unit project a base need to be provided in Kassala. For this purpose the existing maintenance yard will be used. In between two containers, which will be used as store rooms for the stock and supplies, a workshop will be constructed. This yard is presently also used as the KADA container yard.

PMR 36 : Seminar Workplan 1987 Budget : Ls.5,000.-

The seminar has been held for one day at the People Assembly Hall in Kassala. Breakfast, tea and cool drinks for 80 people, TV coverage and taperecording of the seminar proceedings. Cleaning of the building and other incidental expenditures.

PMR 37 : BKS Aerial photography Budget: Dfl.25,000.-

BKS has been flying for the World Bank study of the Gash Delta and added 800 square kilometer to its flightplan to cover the border area. Price includes one set of aerial photographs scale 1:20,000 in black and white and the flight index diagram. No photomosaic (US\$ 12 / square km) has been included in the price.

PMR 38 : IHS Course Budget : Dfl.45,000.-

Part of the recommendations of the New Banat South study is to make two fellowships available for a course at the Institute for Housing Studies at Rotterdam. Mr. Faki Abu Fatima Faki will follow a five months course starting in January 1987 and Mr. Isam Eldin Ibrahim el Shafie will follow a five months course starting August 1987.

PMR 39 : MDC Course Budget : Ls.6,000.-

Request of the Ministry of Agriculture to organise management course for two weeks for senior agricultural staff. The Management Development Center has been requested to carry out a course in Kassala to train the senior staff in the techniques of networkplanning and to put those techniques into practise by preparing a networkplan fitting the KADA workplan 1987.

PMR 40 : Pre-feasibility study for infiltration basins Budget : Ls.40,000.-

The pre-feasibility study is necessary to enable a better founded decision for the long term planning of the KADA infiltration basin program as part of the Gash Delta area water supply proposals. The study is planned to carry out basic investigations in two recharge basins near Wagar and Oleib/Metateib including VES, drilling, pumptesting and surveying.

Appendix 3 Sector Agriculture

General sector report - The last quarter of the year saw the preparations for the KADA seminar which was to be held on 17th December. The purpose of seminar was to discuss the outline of activities for the next three brief framework for years. The ministry of agriculture has produced a Latencies project (IDEAl an Integrated Development of Ecology & project) which consists of 17 supporting activities. The basis forms project of which the design will be based on the waterspreading experience gained on the experimental area Mokram. Attached to Mokram nursery which is to provide seed and plantmaterial for both Mokram and the water spreading projects. This nursery shall also be used to carry out trials with drought fodder and forage crops. To be able to design and set out waterspreading works, a special Conservation trained. Unit will have to be recruited and

It is expected that waterspreading increases the soil moisture content to the extent where drought resistant fodder and foodcrops can be grown. Gradually the waterspreading activities will become small growth points, attracting other activities such as agro-forestry (windbreaks, fuelwood and timber), livestock management and improvement. It is hoped that additional activities such as the energy supply and demand survey as well as various training activities, shall provide the necessary data and training for the staff of participating

ministries, to form a sound basis for the activities.

During the first months of 1987 the ministry of agriculture shall be trained to prepare a schedule of operations for all activities. It is intended to use network planning techniques as an aid to the

management and monitoring of the said activities.

Current projects are either to continue in their present form as an independent project or be adapted to suit the objectives and target group of the Integrated Development of Rural Resources Project.

The following project managers reports were submitted:

- Salem Aleikum

- Dairy Production Development

- Tree plantation for kassala Area

- Expansion of the Cultivated Area Kassala Dairy Farm

- Revival Mokram

- Horticultural Extension

PROJECT : Salem Aleikum

SECTOR : Productive/Agriculture

RESPONSIBLE AGENCY : Ministry of Finance and Planning

PROJECT MANAGER : Mr. Ali Elsafi Osman ADVISOR : Mr. Guus Cosijn

OBJECTIVES: The settlement of 99 families of semi-nomads on 660 feddan of (irrigated) land. Phase 1: development of 210 feddan for 33 families.

TIME SCHEDULE: Phase 1 being implemented, originally scheduled for 1 year (i.e. until the end of 1983). Presently phase 1 is scheduled to be finished end 1986.

COST : Allocated 1982 :

Sudanese contribution Spent until 31-12 -'86 Dfl. 900,000.-

Ls 130,000.-Dfl. 346,574.-

ACHIEVEMENTS TO DATE :

General:

- A waiting the outcome of the report on the capacities of the Salem Aleikum boreholes which is to be produced by the Technical committee of the Rural Water Administration no additional activities concerning the irrigation took place during the reporting period.

- The borehole capacity report was received on 31/12/1986.

- According to this reports the capacities of the 6 boreholes are as follows :

Borehole Mr.	Kean Yield m³/hr	Pumping Time	Recovery Time	Transmissivity	Safe Yield n³/hr
1	12.1	720	1210	very los	not given
2	12.7	320	150	very low	not given
4	13.2	720	340		9_24
6		3			
7	13.5	1440	J. Williams		6_75
8	13.1	1073	720		6_55

- An additional borehole test ordered by the Governor showed a safe yield of 4m³/hr. These disappointing results show that the irrigable area from each pump shall not exceed 10 feddan. With a suggested 5 feddan per farmer only 8 farmers can benefit from a total of 40 feddan against 40 farmers and 210 feddan as estimated previously.

- A meeting between the Director General of Finance and KADA will decide

over the future of Salem Aleikum Project.

Sudanese Observations:

- It seems from the testing of the boreholes that the water capacity of the area is not as rich as was anticipated.

- A decision is to be made about what can be done with the available water.

KADA Observations:

- The results of the borehole capacity report are rather disappointing.
- Before any action can be undertaken, the results will have to be discussed with the responsible authorities (Ministry of Finance).
- Meanwhile, the building activities shall not be suspended because the veterinarian's house is near completion.
- The first crop of tomatoes has been harvested, while the banahas shall be ready for harvesting in February. However, the areas are small and do not exceed 10 feddan.

Future activities :

- The veterinarian's house shall be completed.

- A meeting to determine the future of the project shall be held.

- Depending on the outcome of the meeting new activities shall be initiated as soon as possible.

PROJECT : Dairy Production Development

SECTOR : Productive/Agriculture

PESPONSIBLE AGENCY : Ministry of Agriculture and Natural Resources

PROJECT MANAGER : Dr. Dia Eldeen Hussein
ADVISOR : Senior Agronomist*Cosijn

OBJECTIVES: Increase of milk production by encouraging farmers in the Sawagi area to keep high yielding cows. Purchase of 1.000 good local cows, keeping them in quarantine during a period of one month for reconditioning and artificial insemination, after which they are sold to farmers in the Sawagi area. Building up a revolving fund for similar activities in other areas.

COST: Allocated 1983 Dfl. 493,000.Spent until 31-12 -'86 219,000.-

TIME SCHEDULE: The project started end 1983, but was suspended in October 1984 because of the drought.

ACHIEVEMENTS TO DATE :

General
 Pending the outcome of the negotiations between KADA and the Administration of Animal Resources to reduce the number of objectives and concentrate on a demonstrative character, few activities, apart from the daily routine, took place.

KADA Observations:
 The regional Sudanese Authorities i.e. the Director General of Agriculture and the Director of Animal Resources will decide in due

course on the new objectives of the project and inform KADA.

The Administration of Animal Resources is very reluctant to change the character of the project, because the objectives were already determined before KADA started to help the project financially.

KADA should have offered financial assistance under the condition that the projects objectives would either be reached within a certain time period or be adapted to a more demonstrative character aiming at either the urban dairy farmers or the rural rainfed farmers.

Sudanese Observations:

- No activities were carried out during the reporting period.

- No decision has been taken by KADA to enable the setting of planned activities for the next three months.

- The state of inactivity still prevails according to KADA's wish.

- The Administration has presented a report to the D.G. Agriculture and to KADA in which some changes from the original proposal are suggested.

Future Activities

- During the coming period the project shall be reshaped to fit the needs of one or two targetgroups.

PROJECT : Tree Plantation for Kassala Area

SECTOR : Productive/Forestry

RESPONSIBLE AGENCY: Ministry of Agriculture and Natural Resources

PROJECT MANAGER : Mr. Saeed Mohmmed Osman Shami
ADVISOR : Senior Agronomist Mr. Cosijn

OBJECTIVES: The establishment of 1.000 feddam (phase 1: 250 feddam) of initially irrigated tree plantations, mainly Eucalyputs camaldulensis, along the Gash river approx. 17 kms to the South of Kassala; construction of six wells.

COST : Allocated 1983 (phase 1 only) Dfl. 331,800.-Spent until 31 -12 -1986 " 280,511.-Sudanese contribution (1983 - 1990) Ls 382,000.-

ACHIEVEMENTS :

General:

- Thanks to the possibility to irrigate, the project is in a very good condition. Only a small percentage of trees has died. Attacks of white ants have been overcome with the assistance of the crop protection department who sprayed with Aldrin.

- Some trouble was experienced with the pump. Un-authorized repairs resulted in cross-threading of a lubrication pipe which caused the

oil to leak and overheating followed.

KADA Observations :

- The first area planted with trees grows very well.

- Some difficulties were experienced when higher areas were to be irrigated, but a raised canal, solved the problem.

- Some 200 m of piping from KADA made irrigation of an additional area possible.

PROJECT : Gash Delta Forestry.

SECTOR : Productive Forestry.

RESPONSIBLE AGENCY : Ministry of Agriculture.

PROJECT MANAGER : Saeed Shami.

ADVISOR : Senior Agronomist G.P.A. Cosijn.

OBJECTIVES : - Creat awareness and support for forestry.

- Initiate self help in forest nurseries and woodlots.

- Test forestry intervention models.

- Provide data, for the management of natural forests.

- Improve living conditions in Aroma by planting shelterbelts around and trees throughout Aroma.

- Establish a production forest nursery for Aroma.

- To create job opportunities and income through labour and charcoal production for part of the Aroma population.

CHIEVEMENTS TO DATE :

emeral:

The previous report started erroneously that the project had received its official status. However, the condition that the Delta Corporation had to pay an annual amount of Ls 2600 for maintenance of the canal is not understood. The GDC constructed the canal in the first place, and will take over the project eventually including the maintenance of the canal. The GDC has verbally agreed to this condition and their answer may be expected soon.

KADA Observations:

The planned area has been planted after the initial irrigation.

More than 80 % surived and seems to be doing wel.

Progress with the nursery is slow because of an argument whether the roofconstruction is to be a permanent one or a temporary one, It seems as if the argument has been settled and a start will be made with the construction .

Because the project has not yet received its official status, no funds were received from DGIS yet. Therefore no cost indication can

be given yet.

: Expansion of the cultivated Area Kassala PROJECT

Dairy Farm.

: Productive/Agriculture. SECTOR

: Ministry of Agriculture, Animal Resources RESPONSIBLE AGENCY

Administration.

: Dr. Abdul Hafiz Osman Bakhiet. PROJECT MANAGER

: Mr.Guus Cosijn ADVISOR

OBJECTIVES: To initiate the adoption of improved husbandry techniques and to increase the milk production.

Dfl. 286,000.-COST: Allocated 1982

242,997.-Spent until 31- 12-'86

TIME SCHEDULE: To be completed in 1986.

ACHIEVEMENTS TO DATE :

General

the outcome of the negotiations between KADA and The - Pending Administration of Animal Resources to reduce the number of objectives of the Dairy Production Development Project and concentrate on a

demonstrative character, few activities took place.

KADA was approached to pay Ls 2.750- to enable the project to grow an additional 10 feddan of Alfalfa. KADA advised against an increase in food production because of low prices of fodder on the local market and suggested to reduce the amount of cattle instead. In spite of KADA's refusal to contribute, Alfalfa was planted on 8 feddan of land, stretching the already insufficient watersupply, beyond its limits.

10 feddan of Sorghum Abu 70 was harvested.

KADA Observations

- KADA was asked to assist with the purchase of ALfalfa seed to plant 8 feddan of fodder. In view of the shortage of water, KADA advised against expanding the present area and suggested to reduce the amount of livestock. Apparently this advise was not followed and the seed was bought with other means.

- As a fodder production project, supporting the Dairy Production Development Project, the former is the limiting factor of the latter's

herdsize.

- No effort is made to purchase cattle food on the local market while the prices are low. Combined with proper storage methods, hoarding when market prices are low, can improve the project's viability considerable.
- During the reporting period, no money was spent on activities or purchases.

Sudanese Observations

- Since the submersible electric pumps are connected to the Kassala electricity supply net the irrigation system has become more flexible and less expensive.
- It is suggested to install a third pump, which seems to be available at KADA, to increase the amount of water so as to catch the season of cultivation of Abu 70 (April-June).

- The remaining funds of the project can be directed towards the construction of irrigation canals to improve the irrigation system.

- A contour map for the farm is already available with the following specifications: scale 1:2,500, interval 0.25 meters.

Future Activities :

- Cultivation of a new area with Lubia in rotation with Abu 70 to reach the maximum possible area which can be watered with the available water resources. The area shall not exceed 20 feddans.

- The expansion of the irrigated area will depend totally on the installation of the third pump and the construction of irrigation

canals to reach the maximum efficiency.

PROJECT : Revival Mokram

SECTOR : Productive/agriculture.

RESPONSIBLE AGENCY: Ministry of Agriculture and Natural Resources

PROJECT MANAGER : Mr. Elsadig Yousif Bashir .
ADVISOR : Senior Agronomist Cosijn .

OBJECTIVES: To rehabilitate the Mokram farm, 800 feddan of perennial grasses/fodder crops and reafforestation with Mesquite trees on 400 feddan, as a pilot project.

TIME SCHEDULE: Three years (until end 1986), extended one year to monitor project performance.

COST: Allocated in 1982 Spent until 31-12 - '86

Df1. 450,000.-446,517.-

ACHIEVEMENTS :

General:

- With the onset of the dry season, all vegetation has dropped its seed. From 30/10/'86 the surrounding nomads were invited to use the dry grasses as food for their cattle. For a period of 35 days, at a fee of Ls 0,25, a total number of 18791 head grazed the Mokram enclosure.

- A start has been made to design new activities for the coming season.

Emphasis will be placed on methods of waterspreading production and production methods of fodder crops, storage of fodder crops, production of veldgrasses and the eradication of Casia tora

<u>Sudanese Observations</u>

- A better understanding among the nomads was noticed. This fact shows an increasing feeling of responsibility towards the project.

- The poor quality of the entrance gate and the agressive nature of the Gash cattle are the cause of miscountings when the cattle entered Mokram. This accounted for the fact that the carrying capacity was thought to be much higher.

- On the other hand the dominant vegetation is Cassia tora which has a low nutritional value thus reducing the carrying capacity.

- Camels are not admitted to Mokram for fear of destruction of some of the tree species.

- The daily intake of dry matter is restricted because of lack of stock water points. It is necessary to look into this problem as soon as possible.

- The contour ditches which were established last year, have worked well and Khor water has spread over some areas which hitherto were dry.

KADA Observations

- Revival mokram has become a successful start of a new life: As an experimental farm. Thanks to the cooperation, enthousiasm and dedication of the Director and staff of the department of Range and Pasture Management. Revival Mokram has partly succeeded in reaching one of its objectives: The establishment of 800 feddan of grasses and fodder crops.

 Some striking photographs, showing a green fenced in Mokram encompassed by a brown looking dry desert area, were taken from Mount Mokram by KADA trainee Ignaas de Jong.

- KADA has suggested a new entrance gate design to solve the congestion of cattle near the entrance.

 KADA has taken notice fo the absence of a stock-watering systems and shall request the Technical Committee to carry out a survey.

- KADA has also suggested the establishment of a nursery to enable the Department to conduct controlled trials with fodder crops and to bulk up plantmaterial and grasseed.

Future Activities :

- Mapping of existing water channels.
- Select sites for contour construction.
- Peg and construct contour ditches for waterspreading purposes.
- Collect seed and plantmaterial from foddercrops, forage crops and grasses.
- Design storage trials.
- Establish a nursery.
- Design crop testing trials.
- Construct new entrance gate.

PROJECT : Horticultural Extension SECTOR : Productive Agriculture RESPONSIBLE AGENCY: Department of Horticulture

PROJECT MANAGER : Abdul Haleim El Hassan

ADVISOR : Senior Agronomist G.P.A Cosijn.

OBJECTIVES : To increase horicultural crop production by means of establishing an extension network.

COST : Allocated

Dfl.358.000 Spent until 31 -12 -1986 Dfl.333.000

ACHIEVEMENT TO DATE :

General:

- The project has trained 12 extension agents. The agents are visting individual horticultural farmers and groups of farmers where methods and means to increase production are discussed. To cover their area, the extension agents are provided with motorbikes.

- This project is being financed by the Netherlands Embassy, but the supervision and reporting has recently been transferred to KADA.

- The construction of the 4 extension agents houses and 2 extension centers is progressing well. The house at Wad Sherifei, is finished while the houses at Halanga and at the Southern Sawagi are nearing completion. Because of land tenure problems, the construction of the last house, also at the Southern Sawagi was delayed. The problem has been solved and construction continues.

- Demonstration farms were established throughout the horticultural area. They are to serve as centres where matters like fertilizer application, pest and disease control and pruning are

demonstrated.

Appendix 4 Sector Rural Water Supply

General sector report

* Drilling activities have taken place in the private sector, government departments and for KADA. RAW personnel has been on strike twice for one week during this quarter.

* Welltests have been performed on six wells in Salem Aleikum. Welltesting was performed by the geological section of the RAW.

The results are presented in a seperate report and indicate that the yield of the Salem Aleikum wells is only 25 - 50 % of the required quantity of water. Welltesting equipment did arrive during the reporting period, but it is not complete. The generator and the rising mains were not in the shipment. It is partially operational.

- * For the Wad Sherifei watersupply project working-arrangements have been made with COR, UNHCR and OXFAM. Actual construction will begin in the first quarter of 1987. A contourmap is drawn by COR to make the streetplan in the tentcamp and to design the alignment of the ring-main transmission pipeline. Aerial fotographs are taken from a helicopter and a sketchmap is prepared of the village and refugeecamp appendages has not been received yet. Ignaas de Jong, a trainee of a Dutch Technical High School is guiding the project.
- * A thorough exploratory survey of Rural Water Resources in the Gash Delta area has been executed by KADA and the TNO/WADS expert, in order to gather data for longterm planning and for necessary additional surveys and studies. As a result PMR 40 is providing the funds for a pre-feasibility study for Gash Delta water supply.
- * For Kassala town watersupply a list of materials has been made up, for the Kassala town water pipe programme. The programme supplies dfl. 500.000,— in 1986 and the same amount in 1987 on materials. The shipments of AC pipes will depart from Holland in week 8 and 12. Transport from Port Sudan to Kassala will preferably take place by railway.
- * The Garb El Gash programme has been approved. Preparatory vertical electrical soundings are going to be executed in the lst quarter. The restructuring activities by the Dept. of Townplanning and the KDC, made it necessary to implement a social survey in Garb el Gash, which will be held by a team of graduated girls of the Al Ahfad College in Khartoum under guidance of Mrs. Woutje de Vries.
- * The Sheik of the Rasheyda tribe in the Kassala Province contacted KADA and asked for assistance in finding suitable sites for the creation of

The Rasheyda tribe is nomadic and in 1970 at the request of the Sudanese authorities as well as the people of the Rasheyda tribe, Mr. Hayder Hussein, by that time the Commissioner of Kassala Province and Mr. Salim the Chairman of the Rasheyda Local Committee planned and build the first Rasheyda settlement near Kassala in 1973, which is known as the village of Mastura. Mr. Silmi is now representing Rasheyda Affairs in the Kassala District Council.

Since 1932 the Rasheyda tribe is occupying the area West of the railway Kassala - Port Sudan as was agreed upon during a conference in 1932, which was held at the request of the British Governor, in Igir (near the Hadeliya railwaystation) in the Gash Delta. The Peaceconference was attended by all Sheiks and Chiefs of the Hadendowa and Rasheyda tribe. The three main Rasheyda tribes consist of 26 (family) sub-tribes:

El Barasha
Zawi Hayan
Fairat
Shamin
Shorok
El Hasania
El Gidawien
Gladin
Kiakat
Zawi Amri
El Marazik
Amirat
Kania
Dibarash

El Zinamat
Zawi Aied
Zawi Braikiesh
Hewigat
Nikaishat
Hilimat
Kazaiza
Awaziem
Arinat

El Bratieh
Awimilat
Zilikan
Manafier
Zewi Yamani
Krifat

The Rasheyda tribe is also financially sponsored by the Sultan of Abu Dhabi, to build up their settlements. They mainly require the technical assistance from the Sudanese Government and KADA. Two of the proposed sites for settlement are the areas of Um Setieba and Sasarieb, but all depends on the presence of (ground)water.

At present the Rasheyda stay near the hafirs along the road Kassala - Gedaref and the Eastern borders of the Atbara River. The grazing grounds for the cattle of the above mentioned tribes are in between the Atbara River on the westside and the railway Kassala - Port Sudan on the eastside.

A projectproposal of the watersection will be compiled in the first quarter.

- * The Health workers school building activities are completed for 90%, the building will be finished in the lst quarter of 1987.
- * The installation of a workshop for Rural Watersupply will take place in the yard of the Regional Administration of Water and will be the homebase for the Mobile Maintenance Unit. The installation of two KADA containers, which will be used as a workshop will take place during the first quarter of 1987.
- * The wateryard in El Shokriya village is ready. The system came into operation in the fourth quarter (FMR 28).
- * The following project managers reports were submitted.
 - Drilling and Testing Unit
 - Kassala Watersupply 1
 - Rural watersupply 2
 - Kormuta Watersupply
 - Wad Sherifei Watersupply
 - Completion health Workers School

PROJECT : Drilling and Testing Unit

SECTOR : Infrastructure

RESPONSIBLE AGENCY : Regional Administration for Water

PROJECT MANAGER : Mr. Mohmmed Hussain

ADVISOR : Mr. Martin Homs

OBJECTIVES: Supply of a mobile drilling unit for construction, development and testing of wells for domestic water supply and irrigation in Kassala town and district.

COST: Allocated DF1. 660.000.-

Sudanese contribution (not received) Ls 100.000.-

Spent, no data, cost paid directly by DGIS.

ACHIEVEMENTS :

General:

- From the start of the drilling operations in September 1984 until June 1986 a total of 60 wells have been drilled, of which 41 were reported successful; hence about 70 per cent of the drilled holes may be considered successful from a geo-hydrological point of view.
- RAW purchased PVC casing for approx. 40 wells through KADA.
- The additional spare parts, valued at DF1.40,000 have arrived and the drilling bits have been changed.
- The testing unit from Holland has arrived, but the materials are not yet complete.
- A detailed economic evaluationreport has been compiled.

Progress during the 4th quarter of 1986:

Three wells for KADA were drilled, of which two were successful. Seven wells were drilled for the private sector, of which four successful.

One well was drilled at the expense of the Government, but with a low yield.

Dutch observations:

- without a larger stock of spare parts, a smooth implementation of the programme for 1986 cannot be guaranteed.
- The mud pump has a low capacity and is often giving trouble.

Sudanese observations:

- The drilling unit has no pick-up to transport small materials and personnel.

FUTURE ACTIVITIES/EXTENSION :

General:

The welltesting unit has arrived, but is still incomplete. The testing unit should operate independently from the drilling rig in the future.

Planned activities in lst quarter 1987:

The drilling rig is planned to drill a number of exploration boreholes in the northern Gash Delta in the area of Wagar and Mettatib for KADA to obtain information about the presence of sandpockets for underground waterstorage. One well is planned to be drilled in the Sudanese village

REMARKS: For the RAW to operate the equipment on a sound economic basis tariffs for the construction of KADA wells have been set. Special attention is paid to the cost of labour, materials, depreciation, maintenance

PROJECT : Kassala Water Supply 1

SECTOR : Social Services/Water Supply

RESPONSIBLE AGENCY : PEWC

PROJECT MANAGER : Mr. Mohmed Almed Taha

ADVISOR : Mr. Martin Homs

OBJECTIVES : Partial improvement of the Kassala water supply system, especially in Banat; Khatmiya and Marabat.

TIME SCHEDULE :*

To be completed in 1986.

COST: Allocated 1981 - 1983

Dfl. 438,000.-Spent until 31-12 1986 378,000.-

ACHIEVEMENTS :

General:

implemented part of the proposed improvements of piped systems in Banat. the

a new well has been drilled near the booster station in Garb

two wells drilled by KADA were not successful, no pumps

one well has been drilled by the PEWC for Khatmiya/Marabat.

Progress during 4th quarter of 1986:

One well has been drilled by the PEWC in Khatmiya. A detailed design and budget was made for a system with an elevated tank, a pumpinstallation and connections to the main system.

However the project was partially cancelled, because a better solution for the problems in the Khatmiya and Marabat quarters can be constructed from the Dutch Embassy donation for the purchase of equipment for

The remaining budget, therefore could not be spent on the project in the

FUTURE ACTIVITIES/EXTENSION :

General:

Extension of Kassala Water Supply 1 and 2 projects will be concentrated on the quarter of Garb El Gash.

Planned activities in 1st quarter 1987:

Presentation/approval and start of implementation of several small water supplyprojects to improve the distribution to public tapping points. (i.e. Dfl. 60.000.-)

PROJECT : Rural Water Supply 2

SECTOR : Social Services/Water Supply

RESPONSIBLE AGENCY: Regional Administration for Water

PROJECT MANAGER : Mr. Chalil Hussein El Hadi

ADVISOR : Mr. Martin Homs

OBJECTIVES : Extension of the first phase, i.e. groundwater survey, maintenance and construction of dug wells.

TIME SCHEDULE: To be completed in 2nd quarter 1986.

COST: Allocated Dfl. 438,000

Spent until 31-12-1986 Dfl. 438,000.-

ACHIEVEMENTS :

General

Construction and maintenance activities have been completed.

Handpumps are in stock and can be installed.

From a seperate (embassy)budget a hafir rehabilitation programme has been completed in the scope of this project.

Progress during the 4th quarter 1986:

More handpumps will be installed and a complete rehabilitation of the wells in Demam and Bagadir will be executed. A wide-well will be dug in the village of Awadat.

The Regional Administration of Water has received a donation of 40 handpumpinstallations including spareparts from the UNHCR for the Kassala area. At most wells in Kassala area, pumps can be installed and the remaining money of the projectbudget will enable the RAW to partly finance the execution.

PROBLEMS :

<u>Dutch</u> observations:

progress is still severely hampered by lack of transport to take the teams and the materials to the sites.

- availability of basic facilities such as camping equipment and water must be improved.

maintenance of hand equipment which has been transferred to RAW should be improved.

 a tool list should be made this quarter and additional tools are needed including equipment for hand-drilling of boreholes.

Sudanese observations:

transport and camping equipment is needed for implementation of spare parts for handpumps are not always available. training of RAW to install and maintain handpumps.

FUTURE ACTIVITIES/EXTENSION :

General:

The programme for future rural watersupply projects have been presented by the Regional Administration of Water at a workshop held in Kassala in December 1986. A more detailed proposal for rural water supply 3, containing this programme is in preparation.

Planned activities in lst quarter 1987:

Completion of project.

REMARKS : Now that the KADA area will be extended to include the Gash Delta, strengthening of the RAW, both in respect of institutional and technical/financial aspects, will be necessary in order to meet the demand for water in the rural areas. A pre-feasibility study (PMR 40) is performed for water supply in the Gash Delta and the rest of the KADA projectarea and the results will be presented before the lst of April

PROJECT

: Kormuta Water Supply

SECTOR

: Social Services/Water Supply

RESPONSIBLE AGENCY

: PEWC/Kormuta village

PROJECT MANAGER

: Mr. Mohmed Ahmed Taha/Mr. Taha Ahmed Hamza

ADVISOR

: Mr. Martin Homs

OBJECTIVES: Construction of a piped water supply system with communal

TIME SCHEDULE: Completed, some remaining maintenance

COST : Allocated (corrected estimate) Spent

Dfl. 476,000.-" 445,000.-

ACHIEVEMENTS :

General:

The project has been completed and has been in operation since August 1983. Assistance in maintenance of pumps and electricity system still continues.

Progress in 4th quarter 1986.

The project is still monitored, and from PMR 22 (schoolgardens) connections to schools and public service buildings have been constructed.

Spare pumps have arrived and one booster pump has been build out. The new booster will be installed after modification of the electrical connections.

Flowlimiters have been ordered in the Netherlands and will be experimentally installed on ten private houseconnections.

PROBLEMS :

Dutch observations :

poor condition of the electricity supply may affect operation of pumps (too low voltage and, at times, the availability of two phases only)

causes for misreadings of water meters at public taps have to be

traced and necessary repairs made.

the price of the water has to be increased to cover the running costs and depreciation of the total system. When the PEWC will take over the system the new electricity and waterrates of Jan. 1987 will have to be applied. The evaluation of costs and benefits showed that actual costs of one tin of water has been Pt. 1.53/tin since the start of the project.

- The Kormuta population is willing to participate financially in the experiment to install flowlimiters at ten private house

connections.

The PEWC will install the connections and are interested to introduce more houseconnections with the flowlimitation system, after the trials have proven successful and the watersystem can cope with the increasing demand of water.

<u>Sudanese</u> observations:

 suggest to install a standby generator as power cuts will remain a problem in the foreseenable future.

house connections are needed.

FUTURE ACTIVITIES/EXTENSION:

An expatriate expert coming in February 1987 will assist in modifying the electrical switchboard to avoid future damaging of

the pumping installation in case of electrical power failures.

From PMR 25 a new boosterpump will be installed in February.

Connections to schools and clinic are made also for the regreening project (FAO/KADA) and the schools have started to make gardens and tree-nurseries.

The PEWC is willing to take over the watersystem and KADA/PEWC/Kormuta village committee are preparing the necessary organisational set-up.

PROJECT : Wad Sherifei Water Supply.

SECTOR : Soc. Serv./Emerg. Relief Water Supply.
RESPONSIBLE AGENCY : Regional Administration for Water/COR.

PROJECT MANAGER : KADA

ADVISOR : Mr. Martin Homs/Ignaas de Jong

OBJECTIVES: Construction of a water supply system for the refugee camp as well for the village Wad Sherifei.

This watersystem must be capable to serve save drinking water for both the camp (50,000 inhabitants) and the village:

General

The transferring of the refugees was completed by the end of July, and the population is now decreased to an estimated level of 39,000 inhabitants.

COR started the relocation of the tents into the pattern of the new lay-

The lay-out was previously made by COR according to the Health Authorities directions.

Labour will be recruited in the camp for all typing of work. The labour will be paid by COR through the Food for Work Programme.

Progress in the 4th quarter of 1986:

The main pipeline connecting up five wells is completed and the control storage and tanker filling station is in operation.

KADA has prepared the lay-out for the tapping-points in the camp and rigid foundations will be concreted for 20 storage tanks.

Pipefitting has not been started, because some necessary fitting have not yet arrived from Holland.

Fieldwork execution will start in the first quarter of 1987, in the following order:

- 1- Concreting foundations for 20 storagetanks.
- 2- Construction of tapping points.
- 3- Connection of the old camp to the main system.
- 4- Construction of the ring-main for receptioncamp.
- 5- connecting all storage tanks and tapping points to the ring-main.
- 6- Connecting up Red Cross hospital and ARC premises.
- 7- laying pipline in the village of Wad Sherifei and constructing storage facilities and tapping points.

		* *				-
:	Jan.	Febr.	March	April	May	
1:-		-:	:		:	4
2	::	::				
3		:				
4		•	•			
5						
6						
7						
				:		

PROJECT : Garb El Gash Water Supply
SECTOR : Social Service/Water Supply

RESPONSIBLE AGENCY : PEWC/Garb EL Gash Water Board

PROJECT MANAGER : Mr. Mohmed Ahmed Taha/village Board

ADVISOR : Mr. Martin Homs

OBJECTIVES: To supply drinking water in sufficient quantity and of good quality to foresee in the basic needs of the population of Garb El Gash.

TIME SCHEDULES: October 1986 - December 1987.

COST: Dutch contribution Dfl. 715.000.Sudanese contribution Ls 50.000.-

ACHIEVEMENTS :

General

The geo-electrical survey has not been performed yet, because the equipment is out of order.

Possibly the survey results will be ready in the month of January 1987.

The KDC in cooperation with the Townplanning office is restructuring the village quarter and the new streetplan is under preparation.

The final design of the village and the results of the geo-electrical sounding will be send to Holland as soon as they are available in order to compile the bill of quantities and prepare shipment of the necessary materials.

In January 1987 a meeting will be held between the villageleaders the PEWC, The KDC and KADA to prepare for implementation.

PROJECT : Completion Healthworkers School

SECTOR : Social Services

RESPONSIBLE AGENCY : Directorate General of Health PROJECT MANAGER : Dr. Ibrahim Shieck Idreis

ADVISOR : Mr. Martin Homs

OBJECTIVES: Completion of the existing Healthworkers School through addition of a resthouse, a classroom and a kitchen block with verandah.

TIME SCHEDULE: One year (until March 1987)

COST: Allocated in 1986 DF1. 150.000.-

Spent until 31-12-1986 Sud.L. 134.085.-

ACHIEVEMENTS :

General:

Project has been approved in February 1986.

Progress in 4th quarter of 1986:

The buildingactivities are in the final stage and will be ready before March 1987. In the dining room the electrical connection is still to be made and the floor has to be finished.

From the dormitory the veranda is still under construction and painting work is proceeding.

The lecturing room is completed except for the floor and the painting.

PROBLEMS :

One of the classrooms is altered to be a teachers room. From KADA no objections as long as it does not affect the costs.

FUTURE ACTIVITIES/EXTENSION

General:

<u>Planned activities in lst quarter 1987:</u>
To finish the building activities according to the schedule.
The contractor works under supervision of the Dept. of Housing.

REMARKS

KADA will have a final inspection before the buildingactivities are finalized.

Appendix 5 Sector Other Activities

General Sector report

The activities in this sector are longterm projects carried out by the Kassala District Council. The proposals for the improvement of the KDC workshop will be approved soon. Pending the final decision an ad-hoc committee of four members (two senior representatives of the KDC and two from KADA has started prelimanary discussions on the organisational and legal aspects of the 'Third Option' proposal.

The following project managers reports were submitted:

- Assistance to Road Maintenance Unit

- Rainwater Drainage System

- New Banat South Housing Scheme

PROJECT : Assistance to Road maintenance Unit 1 and 2

SECTOR : Infrastructure

RESPONSIBLE AGENCY: Kassala District Council PROJECT MANAGER: Mr. Mohmed El Fatih

ADVISOR : Mr. Han Petri

OBJECTIVES: Assistance to the KDC Workshop, especially for the maintenance of vehicles. Assignment of a full-time mechanical advisor at the workshop and the supply of spare parts; on-the-job training of the mechanics.

TIME SCHEDULE: First mechanic 8 -1981 till 8 -1983, second from 12-1983 till 10 -1984, third from 11-1984 till 9 -1986, the present mechanic from 9 -1986 till 3 -1987.

COST: Allocated (until October 1986) Dfl. 979,000.-Spent until 31-12 -'86 " 613,000.-

ACHIEVEMENTS :

General:

The project supplies spareparts to KADA and KADA- related equipment, through a "Revolving Fund", which is a great help. KADA employs 2 mechanics, 2 assistant mechanics, one welder, one storekeeper and a storekeeper-assistant to maintain and repair KADA vehicles.

progress during 4rd quarter 1986 KADA vehicles were inspected weekly, serviced and repaired. Equipment of Drainage section were maintained and repaired. On request vehicles of daily farm, Mokram, Drilling rig, Treeplantation, Forestry were repaired c.q. spareparts supplied to them.

7 4

PROBLEMS :

<u>Dutch</u> <u>observations</u>:

Language problem lack of time and complexity of repairs leave little chance for on-the -job- training. KADA mechanics are reasonable willing and able to learn. prepared to work hard, but (still) need close guidance. A instructor, whose only job is to instruct, would be needed, stressing: preventive maintenance, weekly inspections, working systematically, clean, dustfree, explaining how-things-work. The welder made tables and furniture for the project, besides some local improvements/solutions replacing imported (spare) parts.

Contacts with KDC - manager (if present), foreman and mechanics is pleasant, advise is asked and given, KDC can/likes to buy spareparts, but mostly lacks the cash. KDC mechanics are using tools from the KADA toolstore.

Third Option :

KDC and KADA started talks. KDC is investigating the possibility to change into a corporation or company.

Auction, to sell the junk on the yard, is under preparation. A longterm advisor is expected soon, giving talks, planning, ordering a more and better chance of continuity.

The bottlenecks preventing the present KDC workshop to function properly are: lack of knowledge, lack of (regular) maintenance, lack of tools, lack of spareparts and not so much had buildings and dusty yard.

KADA Third Option however, plans first to spend half of the budget (467000 Dfl.) on buildings and the yard, against only 80.000 Dfl. on tools, 150.000 Dfl. on spareparts, nothing on training.

To put priorities first, let start with training (on-the-job, internal/external courses, film video, books), suppling tools (simple and basic), improving the present, not So bad, buildings.

When then the workshop is functioning up to expectations, running well, then and not before, as a "reward", put new buildings and pave the yard.

PROJECT : Rainwater Drainage system

SECTOR : Infrastructure

RESPONSIBLE AGENCY : Kassala District Council

PROJECT MANAGER : Mr. Osman Musa ADVISOR : Mr. Martin Homs

OBJECTIVES: The construction of a primary drainage system in Kassala town (East bank), to safeguard investments in roads and houses, to maintenance.

TIME SCHEDULE: Start of the project in December 1983, with a projected period of three years. A delay of approximately 6 months is anticipated.

COST: Allocated in 1983 Df1. 890,000.—
Spent until 31-12-'86 " 466,000.—
Sudanese contribution Ls 211,000.—
Spent until 31-12'86 Ls 150,000.—

The local component is for wages and salaries. The Dutch contribution for the approved three phases to cover new equipment, running cost and building materials.

CHIEVEMENTS :

General:

About 75 per cent of the primary drainage system has been constructed. The quality of the construction work is reasonable, but needs improvements and the project is already contributing towards improved drainage and traffic conditions in the area.

Progress during 4th quarter 1986:

- Two new boxculverts 10 x 2.5 m. in Tura and Mirghaniya.

- Three pipeinlets and 208 m¹ stonelining between nodalpoints 41 and 42.

- Two pipeculverts 600 mm. diameter.

- Maintenance of constructed drains.

PROBLEMS :

Dutch observations:

- Problems are experienced with the instability of the channels slopes/ damage caused by the flow of the water and by people and cattle crossing the channels.
- Additional lining of the slopes is necessary.

 The cost estimate is ready.

<u>Sudanese observation</u>:

- Same as Dutch observations (see cost estimate).
- Concrete slabs or more 60 diameter pipes are necessary to be laid across the constructed drains to provide access to houses.
- Garbage and waste especially in 8A 19 section is still a problem.

FUTURE ACTIVITIES/EXTENSION:

General

The project should be completed as planned, but lining of the main channels should be included. If (part) of the additional cost can not be paid from the local budget, preference should be given to the construction of channels with a proper lining rather than increasing their total length without lining, as in the original plan. Market area and certain bottle-neckareas should be considered.

An evaluationreport of the project under preparation.

Planned activities 1st quarter 1987:

- At nodal point 6, a boxculvert across the main asfaltroad has to be constructed. In the alignment of the canal from nodal point 3 to 6 the 6" waterpipeline of the PEWC has to be shifted and a 4" syphon has to be constructed near nodalpoint 6.

- Construction of pipeculverts along 45, 46, 47 and 12, 13, 14.

- Concrete slab covering of the lined open drain near the hospital. The costs of Sud.L. 51.000 is paid by the Kassala District Council.

- Pipe prefab stopped, because of lack of storagecapacity.

- Levelling and surveying of the 3250 m. West discharge- and the 3750 m. East discharge canal.

PROJECT : New Banat South Housing Scheme

SECTOR : Other activities

RESPONSIBLE AGENCY: Ministry of Housing and Public Utilities

PROJECT MANAGER : Mr. Mohd.Haj Ali ADVISOR : Mr. Hans de Vries

OBJECTIVES: A study, based on the already collected data and existing development plan, covering a.o. the following items: a masterplan for Kassala, and for Banat South possibilities for cost reductions, inventory of demand, feasibility saving schemes, time and cost planning, institutional framework etc.

TIME SCHEDULE: Visit to the Eastern Region of the Sudan by the NBS mission to study and advice on the report and data collected by the University of Khartoum for a period of two months.

COST: Allocated in 1986 Dfl. 200.000 Spent until 31-12 -'86 all

ACHIEVEMENTS

General

Four consultants visited Kassala to study together with the Ministry of Housing and Public Utilities the New Banat South housing scheme.

Progress 4th quarter 1986:

The draft report of the NBS mission has been submitted to the Central and Regional ministries of housing and public utilities for comments.

PROBLEMS :

None.

FUTURE ACTIVITIES :

General

Future activities and any required further assistance will be proposed after the report has been approved by the concerned authorities. Pending the approval two candidates have been selected by the ministry for training abroad. Two manmonths have already been approved by the GON for further assisitance in 1987.

Planned activities in the 1st quarter 1987:

Visit of the study team to the Sudan and presentation of the final report.

REMARKS :

None.

Appendix 6 Development and Planning strategy 1987-90

1 INTRODUCTION

This paper outlines the main goals and objectives of the Eastern Region Three-Year Development (1987 - 1989).

The plan aims at achieving the following targets:

- 1./ Rehabilitation of Drought Affected Areas to resettle displaced population.
- 2./ Increase Agricultural Production.
- 3./ Encouragement of Agroindustrie.
- 4./ Enhancement of Income Generating Activities in the Rural Areas.
- 5./ Development of Water Resources.
- 6./ Improvement of Infrastructure.
- 7./ Expansion of Services.

- 8./ Expansion of Energy Supply.
- 9./ Development of Human Resources.

Now let us take a close look at each of the above mentioned policy items.

2.1 Rehabilitation of Drought Affected Areas

The Region was hit by a severe drought and famine during the last three years. As a result of this, many of its citizens were compelled to desert their hard-hit areas of origin and moved to live either in relief-camps or around towns.

Hence the plan aims at the resettlement of the displaced population either in their original homelands after securing their basic human needs or by exploring new areas.

2.2 Increase of Agricultural Production

Agricultural production is of paramount importance to the region. Its objectives are to secure food for the inhabitants as well as generate income for the rural population. In order to meet these objectives it has to achieve the following:

Increase of Food Production: The region is rich in agricultural potentialities that include:

- Extensive clay plains in its southern reaches.
- Sizable forest and range lands.
- Domestic and game animals in addition to fresh and marine water resources.

Current practices cover the above mentioned areas in varying intensities. The southern part of the region is dominated by large scale mechanized farming and produces a surplus of food crops. The northern part of the region is dominated by subsistance farming and suffers from food shortages. The policy of the region is to support an integrated and vertical expansion of agricultural production in the south as well as establish storage facilities, ensure effective distribution and organize

a sound marketing policy for agricultural products. In the north where the poorest sector of the population resides the policy is to ensure the expansion of the food production base as well as provide a reliable distribution system with the ultimate goal of food security for all. Animal production is aimed to be maintained through introduction of ranching, improvement of range condition and improvement of animal health.

2.3 Creation of Agro-industries

The regional policy is to encourage the development of agro-industries in order to utilize fully the expected increase in agricultural production and also utilize crop residues. On the other hand such industries are expected to create employment opportunities and help to accelerate the process of socio-economic transformation.

2.4 Income Generation in the Rural Areas

In addition to the above activities directed to improve the standards of living of the inhabitants of the region special emphasis will be given to the promotion of agricultural co-operatives, fresh and marine fisheries, cottage industries, poultry and diary farming. Traditional handicraft works shall be encouraged and the tourist areas on the Red Sea coast shall also be developed. Labour intensitive programmes shall be favoured and community involvement will sought whenever such programmes are implemented. All these arrangements stem from the firm commitment of the region to the idea that the village should form the nucleus for development. This idea will help to contain the rural population in the rural areas and curb the continuous migration into the regional towns. This goal can only be achieved through planning of effective rural development programmes and through generating reliable source of income.

2.5 Development of Water Sources

Water sources in the Eastern Region include seasonel streams, surface water and a limited quantity of groundwater. Adequate ammounts of rainfall are also received especially in the southern parts of the region.

The government of the Eastern Region believes that the proper management and exploitation of the available water resources is vital to the regional development. Water resources should be harnessed in such a way as to meet irrigation needs, livestock requirements and domestic use. First priority wil be given to domestic water supplies through rehabilitation of the existing water sources, the construction of new water points and the development of water harvesting techniques in order to meet the needs of the inhabitants and their animals.

2.6 Improvement of Infrastructure

The Eastern Region is traversed through its lenght by the asphalt road, connecting Khartoum to Port Sudan.

Other earth tracks are hardly passable during the rainy season and bridge connections are often washed out. These poor road conditions partly isolate production areas from the main tarmac road and from the administrative and service centres. The attendant socio-economic problems resulting from this situation are of serious concern to the government of th region. The immediate aim is to biuld major and feeder roads to connect the rural districts to national and regional

development centre. Linkage of production areas is given top priority. Telecommunication facilities are also in poor condition. Their rehabilitation and their extension to cover remote areas is of vital importance.

2.7 Consolidation and expansion of Services

The availability of services and their fair distribution rank high priorities of the region. Regional and Local Government institutions should be adequately strengthened to sustain the role of the government in the process of development and to ensure full participation of the individuals in the development of their own areas. Health services are aimed to reach all inhabitants by the year 2000. This can be achieved through the rehabilitation of existing facilities and by closing the gap in needy areas.

Environmental health will be accorded high priority along with mass education through extension programmes. Educational services are also not adequate. The region aims to secure this vital service for all individuals despite the heavy pressure exerted in the existing facilities by refugee children. Maintenance of schools is of immediate priority. Construction of new school and boarding houses and the training of teachers are also vital to cater for current and future educational needs. Vocational training and adult education are also recorded high priority.

2.8 Expansion of Energy Supplies

At present production in the agricultural sector relies solely on energy derived from petroleum supplies.

Household energy consumption is largely dependent on renewable energy resources. The government of the Eastern Region views with concern the rising cost of energy in both sectors. Policies of the government in this area will be directed to alleviate the situation. These will include the expansion of the renewable energy resource base through foreslation, efficient conversion and optimum utilization of these resources. Solar and wind energy will also be investigated to cater for the expanding horticulture activities in the region. Agricultural and animal residues are also hoped to contribute to the energy required for the domestic use.

2.9 Development of Human Resources

Mobilization of human resources is the most important factor in the development process, since any bottlenecks in the human resource hinder achievement of all the development objectives mentioned above.

The government of the Eastern Region recognizes that there is a severe shortage in steiled? labour required to achieve the plan goals and objectives. To overcome this problem, there is an immediate need for a manpowerplan in order to identify human resources needed to fulfill plan objectives and to show how the educational system will provide the additional steills needed.

Since it is beyond the reach of the region to seb out a manpower plan we shall seek the help of the Central Government as well as foreign aid to achieve this goal.

Appendix 7: List of distrubtion of progress reports

Mr. Mohmed Osman Hamid Karar

Mr. Ismail Yakoub

Mr. Kamal Ahmed Abdul Kareem

Mohamed Haj Ali

Mr. Yousif Yakoub

Mr. Mohamed Sharif Fudual

Dr. Mohy El Deen Eltaieb

Mr. Mohamed Ahmed Tahir

Mr. Mohamed Ahmed Abdul Kareem

Mr. Omer Ahmed Jahfar

Mr. Deya El Deen Hassan

Mr. Mohamed Hussein

Mr. Hassan Abdul Rahman

Mr. Abass Abdula

Mr. Abdul Haleem El Hassan

Mr. Abdul Rahman Gorashi

Mr. Mohamed Ahmed Taha

Mr. Khalil Hussein

Mr. Osman Ohaj

Mri El Sadig Yousif Bashir

Mr. Ali El Safi

Mri Osman Musa

Mr. Mohamed El Fatih

Mr. Adam Abdula Adam

Mr. El Sawi Sliman

Mr. El Sir Kamal El Deen

Mr. Nafi Mohamed

Dr. Abrahiem Shiek Adris

Mr. Mohamed Hag Ali

Dr. Mohamed El Naseeh Osman

Mr. Musa Oshiek

Function

Governor of Eastern Region

Dupty Governor

Exec. Officer KDC

Acting D.G. Housing and P.U.

D.G. Agriculture

D.G. Education

D.G. Health

D.G. Finance and Planning

Exec. Officer For K. Prov.

KADA Co-ordinator

D. of Animal Resources

D.G. Rural Water Corp.

General Manager PEWC.

Divisional Engineer

D. Horticulture Dep.

D. Forestry Dep.

D. Kassala Town WS.

Engineer Shallow Wells

Inspector Min. Educ.

D. Range and Pasture Adm.

Pl. of Salam Aleikum Proj.

Pl. of Drainage Proj.

D. Improvment Serv. KDC.

D. Social Welfare

Inspector Agri.

Head of T.W.C.

Public Services Director

D. Health Kassala + Aroma

D. Public Works

D. Agricultural Reaserch Dep.

Development and Planning