

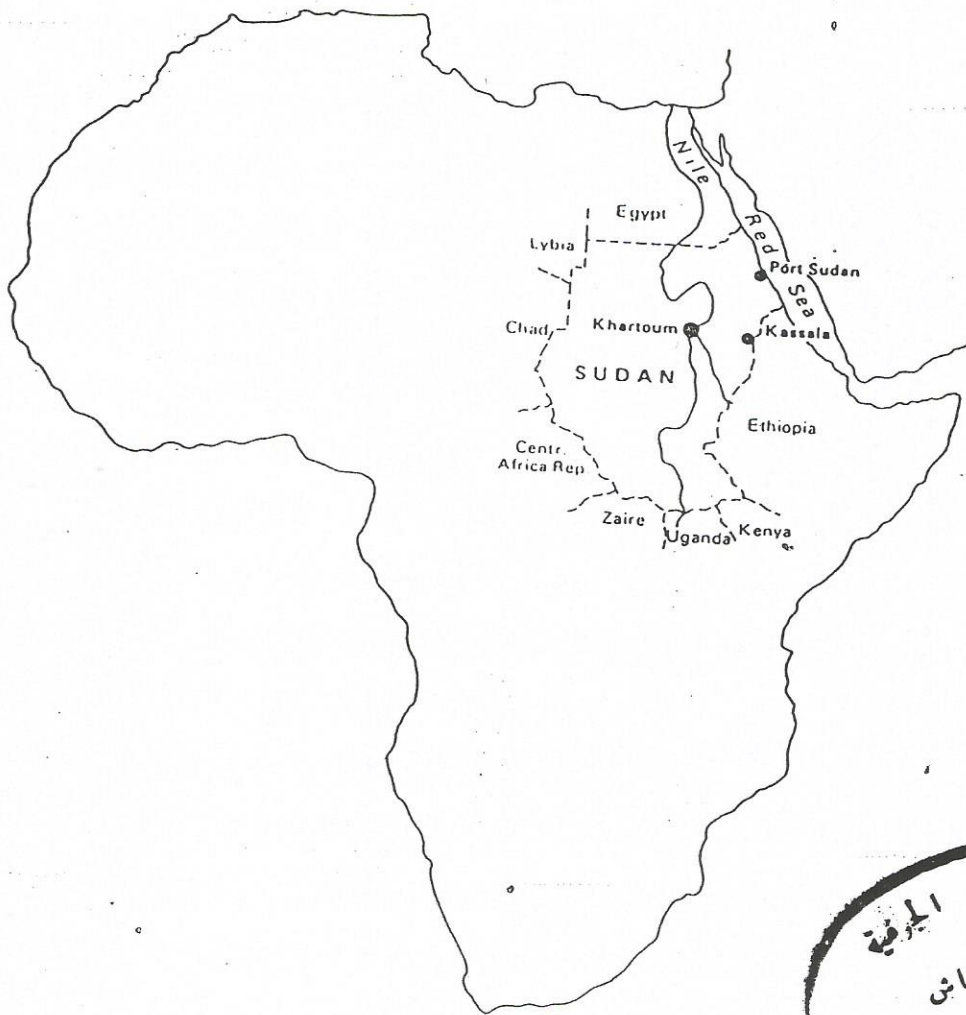
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Republic of  
the Sudan,  
Eastern Region



Kingdom of  
The Netherlands  
Directorate General for  
Development Coöperation

# Kassala Area Development Activities



PROGRESS REPORT NO. 15

2ND QUARTER 1987

(PERIOD 1ST APRIL - 30 JUNE 1987)

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## LIST OF ABBREVIATIONS

A	Sector Agriculture
BKS	Worldwide air and ground surveyors, United Kingdom
CAA	Community Aid Abroad (Australia)
CARE	International Aid Organisation
CEAR	Committee of European Aid for Refugees
DEMAS	Dredging, Engineering and Management Studies
DHV	Dutch consultancy firm which implements KADA
DSRC	Development Studies and Research Center
EM	Electric Magnetic Measurement equipment
EPI	Expanded Programme for Immunization
FAO	Food and Agriculture Organisation
FGA	German Aid Organisation
GDAC	Gash Delta Agricultural Corporation
GON	Government Of the Netherlands
GOS	Government Of the Sudan
GTZ	German Government Aid Organisation
HAC	German Consultancy Firm
HADA	Hadandwa Area Development Activities
HVA	Dutch Consultancy Firm Assisting GDC
IBRD	International Bank for Reconstruction and Development
ILO	International Labour Organisation
IHS	Institute for Housing Studies, Rotterdam
ISS	Institute for Social Studies
ITDG	Intermediate Technology Development Group Ltd.
KADA	Kassala Area Development Activities
KDC	Kassala District Council
KFPC	Kassala Fruit Processing Company
MDC	Management Development Center, Khartoum
MFEP	Ministry of Finance and Economic Planning
M&ID	Management and Institutional Development Component
NBS	New Banat South
NEC	National Electricity Corporation
NIE	Netherlands Institute for Economics
OXFAM	International Aid Organisation U.K.
PEWC	Power, Electricity and Water Corporation
PHC	Primary Health Care
PMR	Programme Management Responsibility
PS	Public Service
RAW	Regional Administration for Water
RH	Sector Rural Health
RWS	Rural Water Supply
SCF	Save the Children Fund

SRC	Swiss Red Cross
SRDC	Sudan Rural Development Company
SWD	Stork Werkspoor Diesel Company
TB	Tuberculosis
TE	Sector Technical Educatio
TNO	Institute for Applied Scientific Research
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children Fund
VES	Vertical Electric Sounding
VSO	Voluntary Service Overseas
VPRO	Dutch Television Broadcast Organisation
VU	Free University, Amsterdam
WADS	Waterresources Assesment and Dev. in the Sudan
WHO	World Health Organisation
WS	Sector Water Supply



PROGRESS REPORT NO. 15

Period 1st April to 30 June, 1987

1. General

The second quarter has been dominated by the Ramadan. From April 27 till May 27 the general productivity slowed down with the reduced working hours from 8.00 till 14.00 hours (one hour less), to stop completely during the holiday period up to June 2, 1987.

After the approval and presentation of the KADA Workplan 1987, identification memoranda have been made for each sector together with a summary budget conform DGIS budget codes. All ministries and other concerned parties received a copy of the final KADA Workplan 1987. All concerned ministries have been requested to prepare detailed orderforms for the equipment, materials and vehicles to be purchased for the implementation of the sector projects and have been forwarded to Holland for execution.

A detailed budget for the KADA estimated local expenditures for the fiscal year 1987/88 has been made conform the Sudan Government cost coding and has been approved by the Department of Planning of the MFEP in Khartoum (See appendix 8).

On 21<sup>st</sup> May, 1987 a discussion was held with representatives of the MFEP, the Netherlands Embassy and KADA to discuss the disbursement procedures of the Countervalue Funds to the KADA programme to enable KADA to finance the local cost component of the project activities. The MFE has opened a special KADA account at the Bank of Khartoum, Kassala Branch and operating procedures have been agreed upon between the MFE and KADA (See appendix 9).

During the second quarter the Hadendoa tribe has put their development drive into action by registering HADA (Hadendoa Area Development Agency) with offices in Khartoum (Sahara Hotel) and in Kassala. Mr. Carl Joseph Wibeke, former advisor to the FGA, is now fulltime employed by the agency and advising them in planning and self reliance projects.

From 15 till 22 June the midterm review discussions were held in Khartoum between the GOS and GON. The approval for the release of PLO funds for KADA can be expected as soon as all identification memo's for the four sectors and the M & ID component have been forwarded to Holland. The local currency component has been approved already and will reach the project in July.



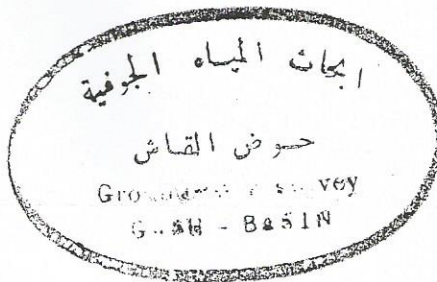
The courier services maintained by KADA (Kassala) and WADS (Khartoum) are working smoothly and are also used by other parties in Kassala. So far the Dutch Embassy has been burdened with many of the necessary logistical problems of KADA in Khartoum. With the increase of staff and workload this has led to too many requests. Therefore KADA has requested and WADS has agreed to appoint a fulltime KADA staffmember in Khartoum responsible for carrying out all logistical and other requests for KADA. He will be supervised by and located in the office of WADS in Khartoum. For these improved services daily radio contacts are being maintained between WADS and KADA. The usual radio contacts with the embassy are continuing every day except Friday and Saturday.

Six members of the German consultancy firm HAC, two of them who will reside in Khartoum, have started with the implementation of the Food Security Project for the UNHCR. Their activities, which are in certain areas similar in nature as the KADA activities, will be carried out in the border area South of Kassala upto Gedaref and focuss predominantly on refugees and Sudanese villages with a refugee population. Presently the following non-Government organisations are active in Kassala and its environment: FAO (Grain silo's, Forestry), UNHCR (Food Security, Refugee camps), GTZ (Technical Education), Lower Saxony (Forestry), CAA (Health), Mercy Corps (Drinking Watersupply). Further assistance by Japan and Italy is still under consideration.

With the arrival of the workshop manager for the Third Option proposal for improvement of the vehicle maintenance, the preparations for the Third Option have been revived. Meetings were held in Kassala and Khartoum with the KDC, the Kassala Fruit Processing Company (KFPC) and the Sudan Rural Development Company (SRDC). Agreement has been reached to have the SRDC carry out a pre-feasibility study for the KDC and to prepare a report to discuss the legal status, investment agreement and the management requirements for the Third Option with the Governor, the Department of Planning, KDC and KADA. Based on the conclusions of the meeting the SRDC will carry out a full feasibility study concerning the Third Option proposal, its management needs for implementation, partners involved in the company and their equity, union and workers involvement, financial and economic viability, legal status, etc., etc. In the meantime the workshop is continuing to carry out its daily maintenance duties without a floorshop mechanic.

Arrangements had been made with SASCO for a cattle counting exercise in the Eastern Region, but due to the tragic accident of the SASCO plane new arrangements will have to be made with Sudan Pezetel or Nile Safari. First, however, cattle routes have to be identified and established before starting the actual counting in the autumn season.





Concerning the water mandate in the Gash Delta area an agreement has finally been reached between the GDC and the RAW. A list of GDC assets has been made to be transferred to the RAW. Only staff transfers remain problematic as salary levels and pension rights are not the same. Starting July the managing director, his deputy, the chief engineer and other senior officers have been transferred.

For the implementation of the KADA health proposals, Dr. Jamal Hashim Khalil has been appointed as fulltime health co-ordinator to KADA to carry out the proposed health activities. Most of the fieldwork has already been carried out by him personally through visits to most of the PHC units, dispensaries, rural hospitals and health centers. Preparations have been made and cooperation has been established with the medical faculty of the University of Gezira to carry out the necessary epidemiological studies. The departments of EPI and TB are preparing and assisting Dr. Jamal in carrying out the implementation of the TB and EPI programmes in Aroma and Kassala Districts.

Pending the arrival of the Planning Expert, KADA is already starting to assist the Department of Planning through the Management and Institutional Development component of the budget with logistical support. The RAW, WADS and KADA have held a meeting to discuss the implementation of the KADA WS program. The Technical Committee of the RAW presently has one VES crew and they have assured that they will be able to carry out the work. Spareparts for a second VES set are underway. Concerning the necessary EM research no EM-APEX equipment is yet available but will soon arrive. Before November 1987 appropriate training in the use of this equipment has to be organised by WADS.

Several missions have visited KADA for different purposes. For the sector agriculture Mr. Zijderveld carried out a study on the financial-economic feasibility of the waterspreading programme Messrs van Reeuwijk and Bokhorst studied and made recommendations for the financial and administrative organisation of KADA. Mr. Dijkstra visited KADA for a few days to assess and recommend on the road construction program of the RAW in the Gash Delta. Mr. van Heeswijk carried out a mission on the New Banat South housing scheme. He has also been asked to comment on the Garb el Gash housing and road plan needed for the implementation of the Garb el Gash watersupply system.

During April a TV crew brought a visit for the VPRO to KADA. They filmed the waterspreading program and the watersupply program of KADA next to some general items. The program was broadcasted as part of the Diogenes program on Sunday 10 May 1987.



As earlier reported an increased demand for extra payments is being made to KADA staff as a reward for the implementation efforts of KADA supported activities. The practice of per diem extra payments is increasingly done also by the ministries themselves, which explains why concerned parties expect KADA to pay in a similar fashion.

KADA has finally received from the Director General of Civil Services the official rules and regulations concerning extra allowances and payments made by the Government departments. KADA has explained its policy of not paying incentives, extra salaries or topping up salaries in the Governors Council on two occasions and has been advised by individual ministries to pay to those who qualify, field allowances and travel allowances according to the Government rules and regulations.

In April the KADA staff got strengthened with the arrival of Rob Bom and Edy Pauli both with family. Rob is going to be in charge of the Mobile Maintenance Unit and the Water maintenance yard on the RAW compound. Edy is going to implement the Third Option of the new vehicle maintenance and repair workshop to be developed on commercial basis. Pending the arrival of the replacement of Louis Bajeto, he will also be in charge of the KADA workshop and the maintenance of the KADA vehicles in the regio.

Ignaas de Jong, trainee of the sector watersupply, left the KADA project after a very useful traineeship. Particularly his computer assistance to KADA and his extra curricular activities were very much appreciated by the KADA staff.

The KADA staff celebrated the 70 year jubileum of DHV in the appropriate environment of the lake at Kasm el Girba with a barbecue. All KADA local staff received a bonus of Ls. 50.

The holiday schedule of the expatriate staff is as follows:

Guus Cosijn: starting 25 April 5 weeks

Anneli Hubach: starting 26 May 6 weeks (marriage)

Hans de Vries: starting 5 July 7 weeks

Martin Homs: starting 6 August 4 weeks

Herman Achterberg: 29 April-2 May and 25 May-1 June

Additional holidays are planned by Cosijn and Achterberg in September and in the autumn respectively.

Mr. and Mrs. (Ikhlas) Gabir Hussein have been on honeymoon in Holland, where Gabir is going to follow the MDF management course.

Mr. Abdul Gadir joined KADA as librarian to be in charge of the KADA library and information centre.

## 2. Progress KADA activities

Of the 1981-82 programme, all five projects are completed.



Of the 1982-83 programme, all ten projects are finalised 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.

Of the 1983-84 programme, eleven of the fourteen projects are already finished. One project (Tajuj Treeplantation) makes steady progress but has a temporary transport problem which will be solved soon, one (Kassala Rainwater and Drainage) is successful but in an irregular speed reaching its objectives, and one is stopped ( Dairy Production Development) as the KADA advisor could not anymore recommend the present direction of the project activities.

Of the 1984-85 programme, all eight projects are finished, including the recruitment of KADA staff and additional PMR funding. In the first quarter the building of the VHW school has been successfully completed. The rural education improvement scheme has been redefined and is now integrated part of the 1987-88 proposals.

Of the 1985-86 programme, six of the eleven projects are finished. The Wad Sherifei project is making steady progress with the fulltime involvement of the RWS trainee. All other projects are ongoing. The Practical Education Program's second phase is now integrated part of the Technical Education proposals for 1987-88.

Of the 1986-87 programme, all nine projects are ongoing, as all three outstanding projects have been approved now. The 'Option Three' workshop project however is still awaiting staff in order to be implemented.

Of the 1987-88 programme, all five project proposals are under consideration pending approval of the GON. The GOS contribution has been approved through the countervalue fund and is expected to be available at the beginning of the Sudanese fiscal year 1987/88.

### 3. New PMR activities in the second quarter 1987

Since the last quarter the following PMR projects have been completed:

#### PMR 29 : Photocopier Regional Administration

With the arrival of the container the photocopier has been given to the ministry of education to be placed in the office of the planning section where Mrs. Hubach will be stationed.

#### PMR 39 : MDC Course

The course has been carried out with great success and appreciation of



the course participants. All participants have received a course training allowance for participation in the afternoon and evening sessions of Ls.50. No travel allowances have been paid as all participants lived in Kassala town.

PMR 42 : Management Course MDF

The course has been successfully followed by the KADA co-ordinator Mr. Gabir Hussein.

PMR 43 : Veterinary Research Laboratory

All furniture , equipment and materials are bought and paid by KADA.

The following new PMR projects are approved and being executed:

PMR 45 : MDC Course Ministry of Education Ls. 7,000.-

PMR 46 : Women Activities Research Al Ahfad College Ls. 3,000.-

4. KADA staff

During the reporting period the KADA staff consisted of 31 local staff, 7 expatriate staff (with a total of 13 dependents). Two senior local staff are seconded, one from the R.M.F.E. and one from the KDC.

Sudanese Personnel (under KADA contract or seconded)

Name	Function	Office
Gabir Hussein	Progr.Coordinator/Counterpart	KADA Office
Monique Pauli	Office Manager	
Ikhlass Hussein	Secretary/Counterpart Soc. Aff.	
Abdul Gader Hussein	Librarian	
Faiza Mohamed	Secretary	
Gamal Hashem	Health Officer	
Abdul Fadil	Gardener staff houses	
Idris Adam Mohamed	Office watchman	
Girmai Tesfi Maryan	Office/guesthouse cook	
Ogbaldet Nur Kidane	Driver Programme Manager	
Mohd. Hassan M. Taha	Driver Programme Coordinator	
Hassan Ali Mohmd.	Driver Agronomist	
Ogbazghi Ibrahim	Driver Rural Water Expert	



Kurban T.G.Kudus	Duty driver Office	
Johannes Melakin	Driver Public Services Expert	
Abd. Ali Hamdi	Watchman return oil collection	O.Coll. Point
Mohd. Bakheet	Gardener guesthouse	Guesthouse
Arey Zecarias	Watchman guesthouse	
Ababa Ogbay	Guesthouse housekeeper	
Elmas Halley	Guesthouse housekeeper	
John Saroba	Cook guesthouse	
Aisa Ali Ahmed	Watchman maintenance yard	Maint.yard
Mohd. Idrees M. Bashir	Electric/mechanic assistant	
Ali Adam Musa	Sub-,servant/watchman day	
Selomon Mebra'Thu	Sub-,watchman night	
Masçal Gabro	Storekeeper Workshop	Workshop
Abaker Ahmed Mohd.	Car mechanic	
Abd. Ahmed Ismayel	Car mechanic	
Must. Ahmed Sharif	Car mechanic	
Hus. Adam Elhaj Ham.	Blacksmith/welder	
Ahmed Assadig Ahmed	Assistant storekeeper	

Expatriate personnel

Hans de Vries	Programme Manager	KADA Office
Herman Achterberg	Administrator	
Guus Cosijn	Agronomist	Min.Agric.
Martin Homs	Rural Water Expert	RAW
Edy Pauli	Workshop Manager	KDC
Rob Bom	Mobile Maintenance Unit	RAW
Anneli Hubach	Public Services Expert	Min.Educ.

5. Reports

Mission report van Reeuwijk  
Mission report Kraayenhagen  
Report Marlies de Leeuw  
Mission report Van Heesewijk  
Report Gedaref

6. Missions and contacts

The following persons contacted KADA office during the second quarter:

<u>Name/Organisation</u>	<u>Period</u>	<u>Purpose of visit</u>
Willem van Heesewijk/DHV Sien Thio/DHV, Merkies/RUA Henk van Reeuwijk, Bert Bokhorst/DHV	April	NBS mission Economy/Ecology study Accountancy mission
Verona Kuchol/SRC Roguz, Majnusz/Sudan Pezetel Jim Ball/FAO Eric Hoskins/Oxford		Health project identification Cattle count by air FAO forestry project Health study
Myriam Henkens, Olivier Bribosia/AEDES Dr. Taj el Sir Fathee Karar/MOH Khartoum	May	EEC health consultants Director Rehabilitation
Hugo Schouten Ray Purcell Osman Makhi, Omar Khalid/ COR, Abd. Abdul Khadar/MOA Alfredo Angne/Mercy Corps Adri van Leeuwen/ADUCO Henk Tieleman/VU		TNO EEC consultant Agricultural Planning Transport WS materials Roadbuilding Project evaluation
John Clark/SCF Klaas Dijkstra/DHV Peter de Goede/DGIS Schild c.s./HAC Caroline Koopman, Michael Lyman/LALMBA	June	Drilling rig WS Road construction advice Financial administration Food Security Program Wheelchair production



7. Financial overview

Financial Overview for KADA projects the 2nd quarter 1987  
(amounts in Dfl.)

Project	: Start - budget in	: Budget in	: Expenditure	: Balance in
	: : beginning	: 1-1-1987	:	: 1-7-1987
<u>KDC :</u>				
Rainw. drainage	: 1983 - : 890,000.-	: 313,950.-	: 20,768.-	: 293,182
Workshop Style	: 1986 - : 749,000.-	: 749,000.-	: 26,224.-	: 722,776
<u>Min. of Finance :</u>				
Salem Aleikum	: 1982 - : 900,000.-	: 397,174.-	: 3,120.-	: 394,054
<u>Housing:</u>				
New Banat S. Study	: 1984 - : 200,000.-	: 78,915.-	-	: 78,915
<u>Water Admin.:</u>				
Wad Sherifei W.S.	: 1985 - : 170,000.-	: 63,931.-	: 73,044.-	: 9,113 -/-
Drilling & Tes. U.	: 1982 - : 660,000.-	: 14,018.-	: 559.-	: 13,459
Kormuta W.S.	: 1983 - : 570,000.-	: 84,842.-	-	: 84,842
Kassala W.S.	: 1983 - : 438,000.-	: 33,083.-	-	: 33,083
Kassala Rural W.S.	: 1982 - : 121,000.-	: 51,994.-	: 2,433	: 49,561
Pipe Materials W.S.	: 1986 - : 1,000,000.-	: 1,000,000.-	: 990,461.-	: 9,539
Garb El Gash W.S.	: 1986 - : 715,000.-	: 715,000.-	: 11,292.-	: 703,708
<u>Agriculture:</u>				
Revival Mokram	: 1982 - : 450,000.-	: 4,594.-	: 3,946.-	: 648
Tree Plantation	: 1986 - : 331,800.-	: 67,035.-	: 39,761.-	: 27,274
Expan. Dairy Farm	: 1983 - : 286,000.-	: 41,753.-	: 292.-	: 41,461
Dairy Prod. Dev.	: 1983 - : 493,000.-	: 358,034.-	-	: 358,034
Gash Delta Forestry	: 1986 - : 437,000.-	: 409,152.-	: 16,349.-	: 392,803
<u>Public Services:</u>				
Red Sea Hills Mis.	: 1987 - : 12,000.-	-	: 2,105	: 9,895

Financial Overview for PMR Projects the 2nd quarter 1987

PMR: Project No.:	Project	: Start	: Budget in	: Budget	: Expenditure	: Balance on:
:	:	: Beginning	: 1987	:	:	: 1-7-1987 :
21	:Toy Prod.	: 1985-	:Ls 5,000.-	:Ls 2,003.-	: 1,800.-	: 203.-
23	:Kormuta Pumps	: 1986-	:Df 15,000.-	:Df 12,169.-	: 139.-	: 12,030.-
28	:El Shokrya W.S.	: 1986-	:Ls 15,000.-	:Ls 2,617.-	: -	: 2,617.-
29	:Phot. Reg. Adm.	: 1986-	:Df 5,000.-	: -	: 2,500.-	: 2,500.-
30	:High. Se. Sc. W.S.	: 1986-	:Ls 20,000.-	:Ls 19,374.-	: 6,544.-	: 12,830.-
31	:Rehab. Power.	: 1986-	:Df 30,000.-	:Df 28,228.-	: 575.-	: 27,653.-
33	:DSRC Courses	: 1986-	:Ls 34,000.-	:Ls 33,415.-	: 32,544.-	: 871.-
35	:Maint. Yar. W.S.	: 1986-	:Ls 10,000.-	:Ls 8,454.-	: 847.-	: 7,607.-
37	:BKS Airpho.	: 1987-	:Df 25,000.-	:Df 25,000.-	: 27,265.-	: Z 2,265.-
38	:Int. Hou. St.	: 1987-	:Df 45,000.-	:Df 45,000.-	: 17,021.-	: 27,979.-
39	:MDC Cou. Agric.	: 1987-	:Ls 6,000.-	:Ls 6,000.-	: 5,249.-	: 751.-
40	:Feas. Infiltr.	: 1987-	:Ls 40,000.-	:Ls 40,000.-	: 32,290.-	: 7,710.-
41	:Map. KADA-Area	: 1987-	:Df 10,000.-	:Df 10,000.-	: 7,094.-	: 2,906.-
42	:MDF course	: 1987-	:Df 30,000.-	:Df 30,000.-	: -	: 30,000.-
43	:Veter. Res. Lab.	: 1987-	:Ls 20,000.-	:Ls 20,000.-	: 19,225.-	: 775.-
44	:WS El Ramla	: 1987-	:Ls 10,000.-	:Ls 10,000.-	: -	: 10,000.-
45	:MDC Education	: 1987-	:Ls 7,000.-	:Ls 7,000.-	: -	: 7,000.-
46	:Women Act. Res.	: 1987-	:Ls 3,000.-	:Ls 3,000.-	: 1,319.-	: 1,681.-



Appendix 1 : Status of All KADA Projects 2nd Quarter 1987

:Pro./Ex.:	Finished	:Ongoing	:Compl.in	:Under-cons.:	Nr.:
:Non-KADA:	(before Apr.1987):		:repo.period:	in rep.per.:	
:1981-'82:	5	: -	: -	: -	: 5 :
:1982-'83:	6	:Salem Aleikum(4) *	: -	: -	: 11:
:1983-'84:	11	:Tajuj Treeplant.	:	:	:
:	:	:Dairy Prod. Dev.	:	-	: 14:
:	:	:Rainw.Drainage	:	:	:
:1984-'85:	8	:Rural Ed. Imp.Sch.**:	-	-	: 8 :
:1985-'86:	Land Cultivation	:Wad Sherifei W.S.	:	:	:
:	:Feas.St.Onion Fa.:	Field Technicien 3	:	:	:
:	:Green Mission	:Administrator 1	-	-	:
:	:Gash Delta Hafirs:	Agronomist 1	:	:	: 11:
:	:N.B.S. Study 2	:Pract.Ed.program.**:	:	:	:
:	:KADA/PM General 3:	:	:	:	:
:1986-'87:		:RMU 3	:	:	:
:	:	:Mobile Maint. Unit	:	:	:
:	:	:Public Serv.Exp. 1	:	:	:
:	:	:Garb El Gash W.S.	:	:	:
:	-	:Kassala W.S. Pipes	-	-	: 9 :
:	:	:KADA/PM General 4	:	:	:
:	:	:Gash Delta Forestry:	:	:	:
:	:	:KDC Third Option	:	:	:
:	:	:Gash Delta W.S.	:	:	:
:1987-'88:				:Man.and ID	: :
:	:	:	:	:B.A.P.P.	: :
:	-	-	-	:R.W.S.Res.	: 5 :
:	:	:	:	:P.H.C.	: :
:	:	:	:	:Techn.Ed.	: :
100% Equipment :	6	: 1	:	-	: 7:
KADA staffmem-ber (fulltime):	8	: 7	:	-	: 15:
Other Projects:	22	: 14	:	5	: 41:
Total	36	: 22	:	5	: 63:
PMR Projects	31	: 9	:	4	: 46:

\* Expansion Dairy Farm, Revival Mokram, Kormuta W.S.; KADA Drilling rig - Projects are finished but still receiving KADA attention.  
 \*\* Second phase is part of 1987/'88 proposal

## Appendix 2 PMR Project Activities

The following Project Management Responsibility (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 craftman. The vocational training centre has started with the production of wooden children 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 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 orderd 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 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 have been finalized. The opening of the water facility is awaiting proper fencing. The population of El Shokriya hase provided the pump and the engine and an additional Ls.12,000.- for the installation.

### PMR 30 : Higher Sec. School for boys

Budget : Ls.20,000.-

The only secondary boarding school in Kassala has no watersupply due to their own 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 yielding 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 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 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 in 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 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.

PMR 41 : Mapping KADA area

Budget : Ls. 10,000.-

Necessary expenditures for the purchase of maps scale 1:100,000 and other scales for the different sectors, aerial photographs, copies of tracings, etc.

PMR 44 : Watersupply El Ramla

budget : Ls 10,000.-

Necessary cost of supplying equipment and materials for the water supply of El Ramla to assist the community which has contributed the ? establishment costs.



### Appendix 3 Sector Agriculture

General sector report.

During the second quarter preparations were made to start with the implementation of the BAPP Project.

The Board of Directors was established and the following members were installed:

Member	Function
- Regional Government General Secretary	Chairman
- Director General, Ministry of Agriculture	Secretary
- Director General, Ministry of Finance	Member
- Senior Executive Officer, Kassala District Council	Member
- Director, Administration of Animal Resources	Member
- Director, Department of Natural Resources	Member
- Director, Department of Agricultural Services	Member
- Director, Department of Agricultural Research (Kassala)	Member
- Project Manager, BAPP Project Border Area	Member
- Two representatives of the Hafarat farmers	Members

In addition a steering committee was established to be directly responsible for the execution of the objectives as described in workplan 1987.

The steering committee consists of the following persons:

Member	Function
- Director, Administration of Animal Resources	Chairman
- Director, Department of Soil Conservation (Daily Manager BAPP Project)	Secretary
- Senior Agriculturist KADA	Member
- Director, Agricultural Research Corporation, Kassala	Member
- Director, Department of Range and Pasture Management	Member
- Head of the Planning Unit, Ministry of Agriculture	Member

#### Activities:

- Meetings were held with the Directors of all Departments to discuss the various budgets. Lists of required materials were composed and forwarded to The Netherlands for further handling.
- Meetings were held with the Director, Agricultural Research, the Director, Range and Pasture Management and the expatriate agricultural advisor of the Gash Delta Corporation to amalgamate their experimental activities on the existing Takruf research farm, which belongs to the Agricultural Research Corporation in Kassala. Reason for amalgamation is the lack of water at the planned site for the Mokram Experimental Nursery, which is managed by the Department of Range and Pasture Management.



The Gash Delta Corporation also showed interest in the Takruf site, because of its location near the Gash Delta Irrigation Project and the fact that experimental work under the supervision of the Director of Agricultural Research would be of high quality. The combination of the three financial inputs would also guarantee a better quality of infrastructure and would enable the purchase of equipment and machinery. A preliminary decision was made that Mokram Experimental Nursery would carry out its activities on Takruf farm with the assistance of the Director of the Agricultural Research Corporation, Kassala. Because the Gash Delta Corporation is in the process of changing Directors, it was decided to discuss their participation at a later stage.

- After discussions with the central Department of Agricultural Extension and at the request of KADA, a regional Department of Agricultural Extension was established. A Director was appointed and transferred to Kassala, together with an Extension Officer. An appointment with a government hydrologist from Gedaref was made to advise the BAPP Project on data collection concerning precipitation, runoff and flow measurement.

- Arrangements with the government Soil Laboratory in Gedaref resulted in their co-operation to analyse soil samples which will be taken at various points throughout the waterspreading area.

- Discussions were held with the Central Department of Soil Conservation to organise a workshop in soil conservation in Kassala. The syllabus is to be directed at the practical implications of waterspreading and its related subjects. The duration of the course will be two weeks. The course will be held in October. Lecturers will be invited from the various government Departments.

- The Director of the Central Department of Agricultural Machinery has agreed to arrange a special short course in tractor operation and maintenance for two tractor drivers of the Regional Department of Soil Conservation and Range and Pasture Management, at the Central Training Centre for Agricultural Mechanisation at Tumbul. KADA has provided the necessary funds.

- Atriplex seed was imported from the Yemen Arab Republic and distributed to the Agricultural Research Station, the Department of Range and Pasture Management and Department of Forestry. Some seed has already germinated.

- The Senior Agronomist of KADA was on leave from 27th April to 22nd May.

- Early rains were widespread and fell during the period between 7th May and 2nd June.

- All participating Departments of the BAPP Project prepared their budgets for the period of July, August and September. Budgets were forwarded to the Regional Ministry of Finance and Planning for further handling.



- Progress of the various project activities is severely hampered by the following factors:
- The delayed approval of the budget in guilders and the delay of the countervalue funds of the financial year as per 1 July 1987. This could show a negative effect on the credibility of KADA if delayed any further.
- the absence of an expatriate workshop mechanic. The low quality of maintenance and repair work already causes unnecessary delays. If this situation is allowed to continue, project vehicles will slowly come to a standstill causing a total collapse of all field activities.
- The delay in approval to order materials and equipment overseas until the project has received its official status. In practice this means that goods with a delayed delivery time, (sometimes up to 6 months) which are ordered in September can be shipped in March. Delivery time including Sudanese customs inspection takes up to three months. Arrival in Kassala may then be expected at the beginning of June 1988!
- The postponement of the purchase of local available materials will result in an increase of costs.

#### PROJECT REPORTS

##### On-going projects:

PROJECT : Salem Aleikum  
 SECTOR : Productive Agriculture  
 RESPONSIBLE AGENCY: Ministry of Finance and Planning  
 PROJECT MANAGER : Ali Elsafi Osman  
 ADVISOR : Senior Agronomist Guus Cosijn

OBJECTIVES : The settlement of 99 families of semi-nomads onn 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 the termination of phase 1 is postponed until a decision is made, if the project will be continued. This decision depends on the availability of sufficient sub-surface water.

COSTS: Allocated 1982:	DFL. 900,000.--
Sudanese contribution	LS. 130,000.--
Spent until 01/07/87	DFL. 346,574.--



ACHIEVEMENTS TO DATE:

At a meeting in the presence of the Governor, it was decided that an additional borehole to the north of the existing low-producing boreholes would be drilled to establish the availability of water. The result of this test would be discussed at another meeting after which a decision about Salem Aleikum's future could be expected. Until now no drilling activities have been started.

The engine at the low yielding borehole nr. 7 broke down. The farmers replaced it with one of the new engines which are still stored at the project site. When that engine also broke down, farmers replaced it again with a new engine. The farmers do not allow Kada to remove the materials and equipment which are stored at the site unless the planned activities are to be continued.

The Project Manager Ali El Safi will be transferred on 1st July 1987. He will be replaced by Mr. Mustafa Ali Hamid.

PROJECT : Dairy Production Development  
SECTOR : Productive Agriculture  
RESPONSIBLE AGENCY : Regional Ministry of Agriculture and Natural Resources  
PROJECT MANAGER : Dr. Dia El Din Hassan  
ADVISOR : Senior Agronomist Guus Cosijn

OBJECTIVES: To increase the production of milk by encouraging farmers in the Sawagi area to keep high yielding cows. To purchase 1.000 good local cows and to keep 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 of a revolving fund for similar activities elsewhere.

COST: Allocated in 1983 Dfl. 493.000.--  
Spent until 01/07/'87 Dfl. 219.000.--

TIME SCHEDULE:

The project started in 1983, but was suspended in October 1984 because of the drought. The project is now being operated by the Administration of Animal Resources. No new activities are reported. KADA has stopped financing the project because the project activities diverted too much from the initial objectives. At present the Project Manager Dr. Dia Eldin Hassan has been asked to review the project and hand in a proposal enabling the project to continue.

PROJECT : Tree Plantation for Kassala Area  
SECTOR : Production Forestry  
RESPONSIBLE AGENCY : Regional Ministry of Agriculture and  
Natural Resources  
PROJECT MANAGER : Saeed Mohmed Osman Shami  
ADVISOR : Senior Agronomist Guus Cosijn

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OBJECTIVES: The establishment of 1.000 feddan (phase 1,250 feddan) of initially irrigated tree plantations, mainly Eucalyptus camaldulensis, along the Gash river.

COST:

Allocated in 1983 (1st phase only)	Dfl. 331,800.--
Spent until 01/07/'87	DFL. 291,458.--
Sudanese contribution (1983 -1990)	LS. 382,000.--

ACHIEVEMENTS TO DATE:

- Nursery improvements completed.
- A new well was drilled and a pump and engine installed.
- Some 450.000 tree seedlings are ready for planting at Tefaiet and the new site for the BAPP Project at Hedadeb.
- A termite attack was successfully treated with Dildrine.
- At Tajuj, about 50 feddans have been planted with tree seedlings.
- There was some delay with the construction of two additional handdug wells because the necessary geo-electrical soundings were carried out later than was expected.
- About 60 feddan has been cleared at the Tefaiet Forest Reserve.
- The project Landrover, which was confiscated by the Governor, was returned with the condition that it should not be used for the Tajuj project. Meanwhile KADA has lent the old workshop Landrover to the project, but a new vehicle should be ordered from the budget of next year.
- The Suzuki motorbike and the two donkeys have proved to be efficient means of on-farm transport.
- The tractor and trailer are still in working condition.
- The growth of the trees is very satisfactory, although the area planted under the taungya system shows better results.



PROJECT : Gash Delta Forestry  
SECTOR : Productive Forestry  
RESPONSIBLE AGENCY : Ministry of Agriculture and Natural  
Resources  
PROJECT MANAGER : Saeed Mohmed Osman Shami  
ADVISOR : Senior Agronomist Guus Cosijn

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OBJECTIVES:

Improve living conditions in Aroma by planting a shelterbelt of 250 feddan on the South and West side of Aroma. Establish a production forest nursery for Aroma.

To provide forestry products.

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

Create awareness and support for forestry.

Test forestry intervention models.

Provide data for the management of natural forests.

COST:

Total allocated until 1989	DFL. 437,000.--
Allocated for 1987	DFL. 127,000.--
Dutch contribution	DFL. 60,900.--
Sudanese contribution	DFL. 77,900.--

ACHIEVEMENTS TO DATE:

Aroma shelter belt.

- Maintenance of the terraces which were planted the previous year, with the aid of the motorgrader of the Aroma Rural Council.
- New plant lines in between the old ones were marked.
- During the dry period it was feared that many Eucalyptus trees, which were planted on the dryer places would wilt. Watering with a tanker saved the trees.
- To avoid too many dry patches in the future, the areas to be flooded were divided in smaller plots (5 feddan).
- The maintenance of the Makali canal, carried out by the Gash Delta Corporation, was finished in time. An additional canal was constructed to facilitate irrigation of the shelter belt.

Gash Delta Central Forest Nursery.

- Nursery preparations to plant some 70,000 trees were completed.
- The following species were planted:  
Eucalyptus, Acacia, Ziziphus, Parkinsonia, Balanites, Azadirachta, Goldmohr, Conocarpus.

- Germination was satisfactory.
- Access road to the nursery was upgraded by the Aroma Rural Council.
- During the dry season, the DAF water tanker from the forestry department was called in to irrigate the nursery.
- According to the rural water Corporation in Kassala, the capacity of the hafir supplying the nursery is too small. Mechanical deepening is not practical. Handdigging could be considered.

PROJECT : Expansion of the Cultivated Area Kassala Dairy Farm  
 SECTOR : Productive Agriculture  
 RESPONSIBLE AGENCY : Ministry of Agriculture and Natural Resources, the Administration of Animal Resources  
 PROJECT MANAGER : Dr. Abdul Hafiz Osman Bakhiet  
 ADVISOR : Senior Agronomist Guus Cosijn

OBJECTIVES:

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

There is some DFL. 43,0000.00 left over for this project. KADA has stopped financing because the project has diverted too much from its initial objectives. The Director of the Administration of Animal Resources has been asked to review the project and hand in a proposal enabling the project to be amalgamated with the Dairy Production Development project and to be continued.

PROJECT : Horticultural Extension  
 SECTOR : Productive Agriculture  
 RESPONSIBLE : Ministry of Agriculture and Natural Resources, the Department of Horticulure  
 PROJECT MANAGER : Abdul Halim El Hassan  
 ADVISOR : Senior Agronomist Guus Cosijn

OBJECTIVES:

To increase horticultural crop production by means of establishing an extension network.



COST:

Allocated: DFL. 358,000.--  
Spent: DFL. 358,000.--

ACHIEVEMENTS TO DATE:

Extension:

- Extension work, such as fertilizer applications, pests and disease control, pruning, and general advice to farmers, continues according to the programme.
- During the reporting period a total of 947 visits were made, while some 227 farmers visited the various extension centres.

Building activities:

- Still two houses are awaiting completion.

Womens Activities:

- A course in "womens activities" was held at the Elefhad club in the northern Sagias.

Beekeeping:

- All 12 hives are reported to be doing well.

PROJECT : Border Area Pilot Project (B.A.P.P.)  
SECTOR : Agriculture  
RESPONSIBLE AGENCY : Ministry of Agriculture and Natural Resources  
PROJECT DIRECTOR : Dr. Dia El Din Hassan (Director Administration of Animal Resources)  
PROJECT MANAGER : Hashim Mohamed Elhassan (Director of Soil Conservation)  
ADVISOR : Senior Agronomist Guus Cosijn

OBJECTIVES:

To create a self-sustained system of subsistant crop production, and fodder crop production, through agroforestry, forestry and rotational grazing models, for the benefit of the rural population of the Border Area.

TOTAL COSTS:

Sudanese budget (1987-1988) LS. 385,000.--  
Dutch budget (1987) DFL. 387,500.-

PROJECT ACTIVITIES:

ACTIVITY : Waterspreading  
PROJECT MANAGER : Hashim Mohamed Elhassan (Director of Soil Conservation)

COSTS:

Sudanese budget LS. 155,000.--  
Dutch budget DFL.142,500.--

ACHIEVEMENTS TO DATE:

- At the beginning of the second quarter a start was made with the construction of the first contour embankments. Because the activity has not been allowed to purchase a tractor yet, the Department of Soil Conservation lent the project a tractor for a short period. The work was continued with rented tractors (LS350 -LS450/day). Tractor drivers are not trained and most tractors are in a very bad condition. Plough adjustment gadgets are invariably damaged to the extent where a proper setting has become impossible. New tractors are often written off within one or two years after purchase. Valuable foreign exchange can be saved by organising training courses for tractor drivers, especially in the private sector where farmers may be willing to pay for such courses.
- Waterspreading embankments have been constructed in an area of 91 ha. (see map). Embankments have an average length of 1.000 meter. The horizontal interval varies from 30 to 35 meter, with vertical interval of 0.35 meter.(height of the embankment).
- In May, the first rains fell on the rocky outcrop catchment area but not on the waterspreading area itself. An inspection in June showed the area under waterspreading to be of a light green colour, caused by the growth of weeds, while the surrounding area still showed a desert-brown. As was expected, some of the higher contour embankments had broken in places where it intersected the Khor. The total damage was only 3%.
- Maps with a scale of 1 : 20.000 and 1 : 10.000 were made of the Hedadeb catchment area, showing the catchment characteristics, its drainage system, cultivated areas and the newly pegged contour embankments.
- At a meeting it was decided to initiate a preliminary socio-economic survey in addition to the El-Marya socio-economic survey, to obtain a better insight in the social structures, power structure and the land tenure system of the Hafarat village.



- The Director of the newly established department of Agricultural Extension was asked to make contact with the sheikh of Hafarat to obtain permission to introduce the principles of waterspreading to his people . The meeting was successful and all farmers are now co-operating
- It was also decided that contour embankments should be extended beyond the arable areas to enable the Department of Forestry to establish a mixed self-sustained, multi-purpose forest. This forest is to be surrounded by areas planted with forage crops i.e. Atriplex and to be used as an area where the village livestock can graze in rotation.

ACTIVITY : Mokram Experimental Farm  
 PROJECT MANAGER : Elsadig Yousif Bashir (Director Range and Pasture Management Department)

**OBJECTIVES:**

To use Mokram Farm as an area where field trials can be carried out under semi-controlled conditions and in the vicinity of Kassala.

**COST:**

Sudanese contribution (1987 -1988) LS. 90,000.--  
 Dutch contribution (1987) DFL. 90,000.--

**ACHIEVEMENTS TO DATE:**

- The fence has been repaired and a new entrance has been constructed.
- The following trials have been designed and initiated:
  1. Fodder production trials:
    - yield comparison trials of the following fodder crops:
      - Sorghum vulgare (ABU 70)
      - Sudan Grass
      - Pioneer
      - Dolichos
      - Clitoria
      - Philipisara
      - Cenchrus
      - Panicum
  - Yields will be compared to one another and with a grass legume mixture as well as with natural range production.
  2. Fodder preservation trials:
    - silage will be made of the above mentioned fodder crops.
    - hay making will be carried out with the above mentioned fodder crops.

3. Gully-plug and contour bank protection trials.
    - a comparison of the various plugging and protection materials and vegetations will be carried out.
  4. Observations trials on:
    - effectiveness of contour ridges and contour channels
    - silt deposits and erosion
    - infiltration rates
    - waterholding capacity of the soil
    - water quantities and frequency of flow of khor El Amirei
    - control of Casia tora (mechanical,biological)
- The proposed nursery site, at the Dairy Farm, could not be maintained, because of lack of water. A new site was offered by the Agricultural Research Corporation at Takruf. A start has been made with fencing and land preparation.
- The objectives of the nursery are:
- Seed production and propagation of plant material.
  - The execution of subsistence crop and fodder crop trials. (crop-water requirements, land preparation, spacing, weeding, minimum tillage, cutting intervals.

ACTIVITY : CATTLE HUSBANDRY AND REGIONAL VETERINARY RESEARCH LABORATORY

PROJECT MANAGER : Dr. Dia El Din Hassan

OBJECTIVES : To improve the standard of livestock management

COST:

Sudanese contribution (1987 -1988)	LS. 35,000.--
Dutch contribution (1987)	DFL. 50.000.--

ACHIEVEMENTS TO DATE:

- Medicines, chemicals, instruments and equipment have been ordered for the regional Veterinary Research Laboratory.
- PMR 43 provided funds for the furniture of the newly constructed laboratory. The total expenditure was LS. 19,225.--.
- It was decided to invite Mr. Rob Beck (DHV) to give advise on live-stock surveys in general.



ACTIVITY : REFORESTATION OF BORDER AREA  
PROJECT MANAGER : Saeed Mohmed Osman Shami  
OBJECTIVES : To introduce and establish agroforestry systems  
and a sustained rotational system of multi-  
purpose forests in the Border Area.

COST:

Sudanese contribution (1987 -1988) LS. 55,000.--  
Dutch contribution (1987) DFL. 55,000.--

ACHIEVEMENTS-TO DATE:

Some 150,000 tree seedlings of mixed species were raised at the nursery of the Department of Forestry. These seedlings are now ready for transplanting.

ACTIVITY : AGRICULTURAL EXTENSION  
PROJECT MANAGER : A. Hakeem Ahmed El Hassan  
OBJECTIVES : To establish a mutual contact between the Regional  
Ministry of Agriculture and the rural population  
of the Border Area, with the aim to improve their  
standard of living.

COSTS:

Sudanese contribution (1987 -1988) LS. 25,000.--  
Dutch contribution (1988) DFL. 25,000.--

ACHIEVEMENTS TO DATE:

The result of negotiations with Mr. Hashim Awadalla, Head of the Agricultural Extension Field Division was the establishments of the Regional Departments of Agricultural Extension and the appointment of Mr. A. Hakeem Ahmed El Hassan as its Acting Director.

- A design for new office accommodation was made and presented to the Department of Housing and Construction.
- Lists of audio-visual aids and office equipment were drawn up.
- An introduction meeting with the Sheikh of Hafarat village and its inhabitants was organized to explain the benefits of waterspreading.

ACTIVITY : AGRICULTURAL EXPERIMENTAL STATION  
PROJECT MANAGER : Dr.Mohamed El Naseeh Osman, Director Kassala  
Agricultural Research Station  
OBJECTIVES : To lead the way to improved agricultural  
development in the Border Area through practical  
experiments.

ACHIEVEMENTS TO DATE:


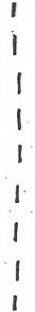



- Lists of equipment and materials were made.
- The following trials were designed:
  - Variety trials
  - Planting dates
  - Land preparation
  - Weeding trials
  - Plant density trials
  - Minimum water requirement trials
  - Intercropping observation trial
- A perimeter fence was constructed at the Takruf farm
- The lands were prepared for planting (ploughing and harrowing)
- Preliminary discussions were started to amalgamate the Agricultural Research Corporation of Kassala with the nursery of the Department of Range and Pasture Management and the experimental sector of the Gash Delta Corporation.

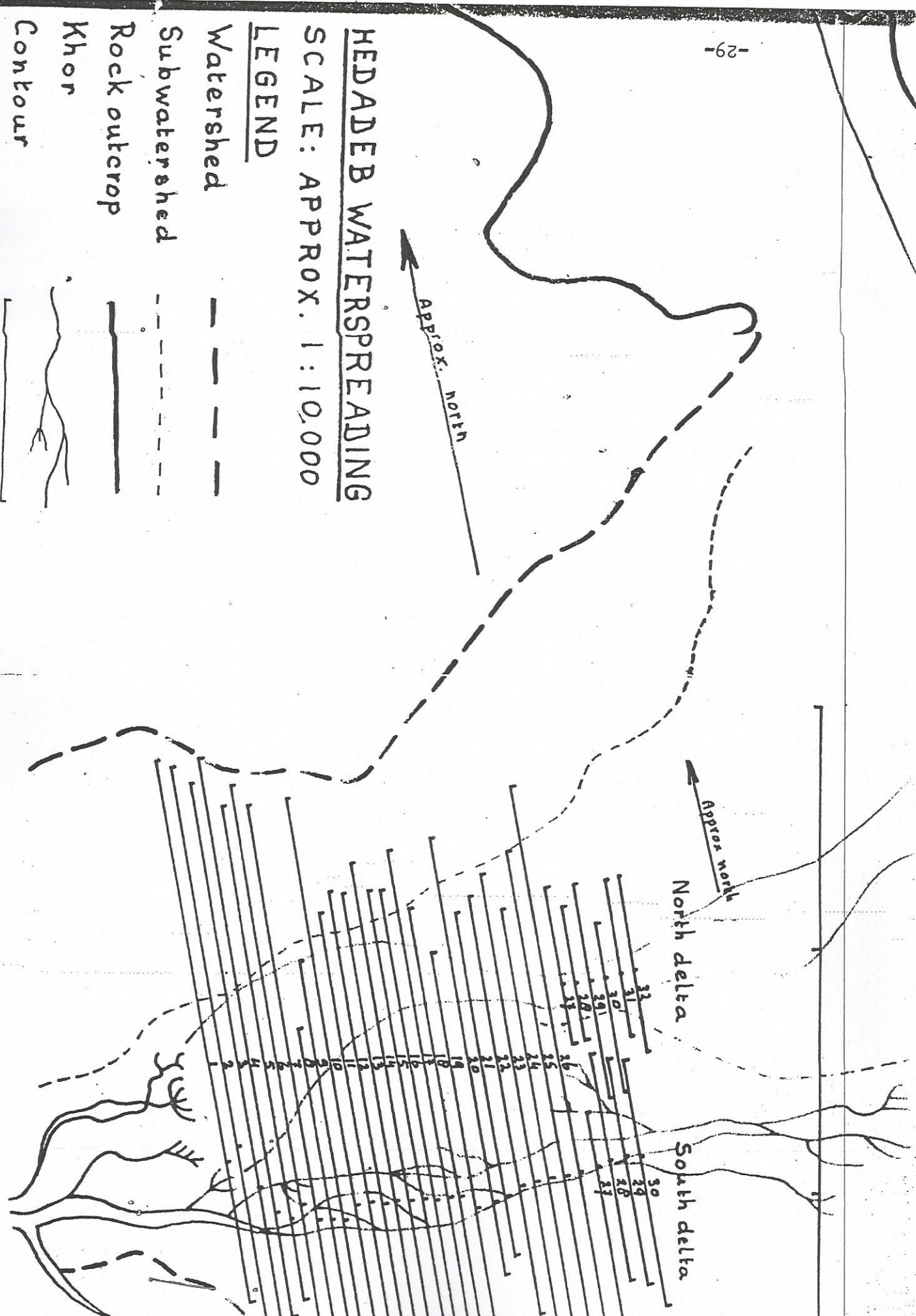


# HEDADEB WATERSPREADING

SCALE: APPROX. 1:10,000

## LEGEND

- Watershed 
- Subwatershed 
- Rock outcrop 
- Khor 
- Contour 



Overlay contours

MAPPING OF CONTOURS AT KHOR HEDAEB ON 27/07/87.

Chainage	Contour	Distance	Contour No.	Chainage	Contour	Distance	Contour No.
0	-----	0		30	-----	1030	
220	-----	220		12	-----	1042	----- 17
30	-----	250		30	-----	1060	
23	-----	273	----- 1	24	-----	1084	----- 18
30	-----	280		30	-----	1090	
12	-----	292	----- 2	30	-----	1120	
30	-----	310		7	-----	1127	----- 19
6	-----	316	----- 3	30	-----	1157	
30	-----	340		4	-----	1154	----- 20
10	-----	350	----- 4	30	-----	1184	
30	-----	370	----- 5	3	-----	1183	----- 21
12	-----	382	----- 5	30	-----	1210	
30	-----	400		14	-----	1224	----- 22
6	-----	406	----- 6	30	-----	1240	
30	-----	430		30	-----	1270	
30	-----	460		30	-----	1300	
30	-----	490		15	-----	1315	----- 23
6	-----	496	----- 7	30	-----	1330	
30	-----	520		30	-----	1360	
19	-----	539	----- 8	30	-----	1390	
30	-----	550	----- 9	30	-----	1420	
30	-----	580		2	-----	1422	----- 24
30	-----	610		30	-----	1450	
30	-----	640		30	-----	1480	
30	-----	670		20	-----	1500	----- 25
7	-----	677	----- 10	30	-----	1510	
30	-----	700		10	-----	1520	----- 26
30	-----	730		30	-----	1540	
16	-----	746	----- 11	25	-----	1565	----- 27
30	-----	760		30	-----	1570	
17	-----	777	----- 12	30	-----	1600	
30	-----	790		12	-----	1612	----- 28
30	-----	820		30	-----	1630	
10	-----	830	----- 13	30	-----	1660	
24	-----	844	----- 14	15	-----	1675	----- 29
30	-----	850		30	-----	1690	
30	-----	880		30	-----	1720	
9	-----	889	----- 15	20	-----	1740	----- 30
30	-----	910		30	-----	1750	
30	-----	940		10	-----	1760	----- 31
30	-----	970		30	-----	1780	
4	-----	974	----- 16	30	-----	1810	
30	-----	1000		24	-----	1834	----- 32



PROGRESSREPORT  
2<sup>nd</sup> quarter 1987  
Sector Rural Watersupply

1. General

The Rural Water supply section has expanded with the arrival of Mr. Rob Bom, who is going to set up the Mobile Maintenance Unit with a homebase at the premises of the NCDRWR for the maintenance and repairs to be carried out on all water supply facilities under the administration of the NCDRWR.

Two counterpart staff, electro-mechanical engineers from the NCDRWR have arrived to be trained.

2. Kassala Waterpipes Project

All materials for the project arrived during this quarter. Unfortunately many of the asbestos cement pipes have been damaged. The shipping company had an assessment of the damage made by a Lloyd's surveyor. The report has not yet been received.

A detailed workplan for implementation is under preparation by the PEWC.

3. Garb el Gash Watersupply

The social survey of the Al Ahfad College girls under guidance of Mrs. Woutje de Vries has been rounded up and the results are presented in a report. The report gives valuable information on water use patterns and on the social structures in the quarter.

Information on the social structures are necessary for the organisation of the population who are going to participate in the execution of the project.

4. Well-testing Unit

The Rural Water Cooperation has supplied a trailer, where the equipment will be mounted on. The 26 KVA generator has been tested and made ready for use in the KDC/KADA workshop.

After the first experiences with the equipment, financial rates will be drawn up for well testing similar to the tariff system which was developed for the operation of the drilling rig.

The Unit will operate independently from the drilling rig operations and testing will be performed by the Technical Committee of the NCDRWR.

5. Kassala Rainwater Drainage Project.

A separate report has been submitted and will be included as Annex A to this progress report.

#### 6. Wad Sherifei Watersupply

Mr. Ignaas de Jong, a trainee of a Dutch Technical High School has left and will be replaced by Mr. Hans Broeders. Tapstands are being constructed throughout the camp and the village. After the transfer of many refugees to permanent camps priority has been given to the permanent village of Wad Sherifei.



INTERIMREPORT KASSALA RAINWATER DRAINAGE PROJECT

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## INTERIMREPORT

### KASSALA RAINWATER DRAINAGE PROJECT

#### 1.0 Introduction.

In the report "Kassala Urban and Adjacent Area Development Project" of December 1979 the need for major improvements of the town drainage system has been identified.

In May 1982, a proposal was compiled in the report : 'Drainage and Roadmaintenance in Kassala Town' (DHV) to solve the rainwater drainage problems on the Eastbank of the town of Kassala.

After approval and preparations, the project started in December 1983. The project is executed by the Department of Public Works of the Kassala District Council.

This report is meant to give an evaluation of fase I and II and the ongoing fase III up to the present.

#### 2.0 General.

The project should have been completed in 1986, but for several reasons the project has been retarded and the planned time for construction could not be realised.

In spite of the constraints, the project is carrying on very succesfully and it can be expected to be completed by the end of 1988.

The continuation of the project on the remainder of the allocated budget of 1983 is of the utmost importance for the fast growing, urbanizing town of Kassala.

The works, that have been completed sofar have been very effective and have solved many flooding problems in the town.

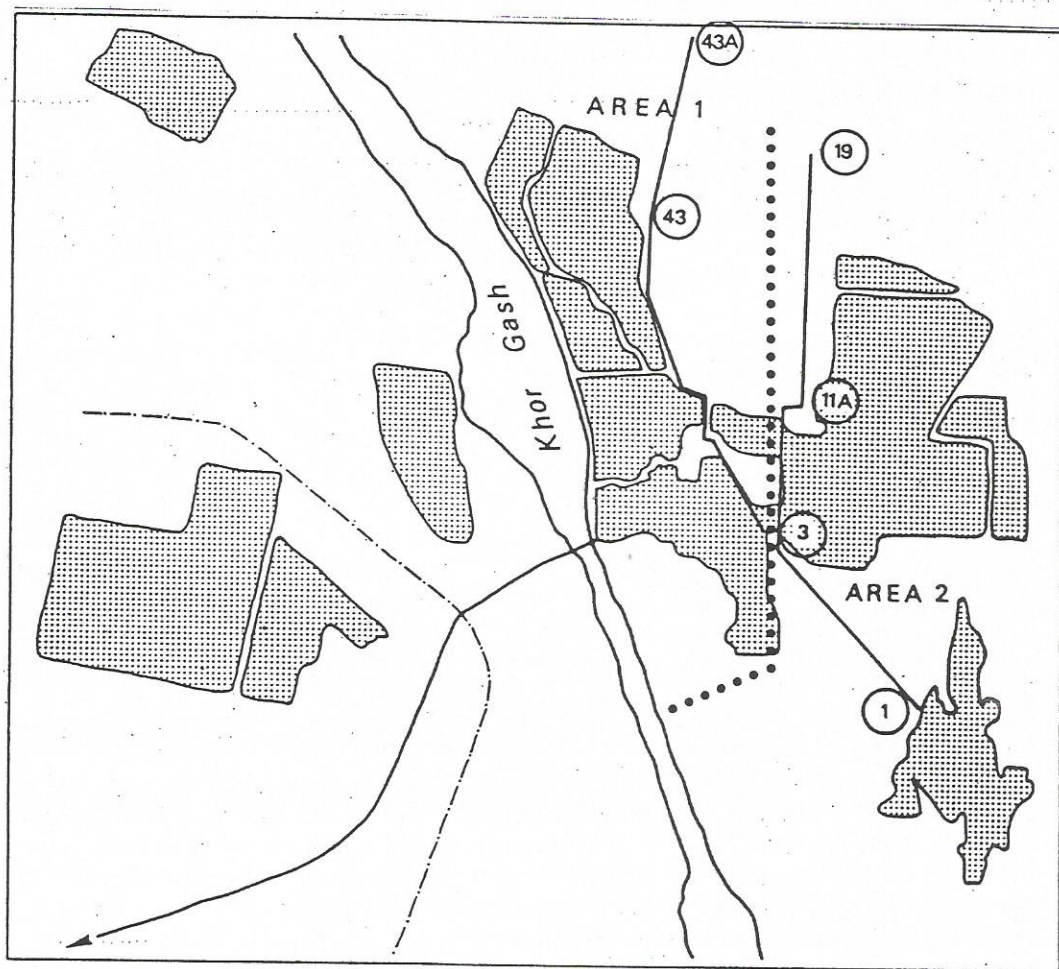
Formerly the flooding of the streets, after rainstorms, the excess of water could not be drained quickly, because of the imperfect drainage-system. It caused many houses and walls build of mudstone to collapse, after the foundations were saturated with water.

It is notable, that the population of Kassala feels to be safeguarded from the seasonal floods by the large increase of building activities. The willingness of the population to contribute financially and give full support and cooperation to the project indicates their appreciation and confirms the necessity of the improvements.

### 3.0 The design

For detailed descriptions on the design this report refers to the proposal of May 1982, but briefly the design consists of three basic design elements : 1. The Primary System 2. The Secondary system 3. Culverts

Figure 1. Design Primary System



#### 3.1. The Primary System

Before the project, the drainage canal 1 - 3 - 43 - 43A , which is passing through the centre of the town had to deal with the total water discharge of the entire Eastbank area.

The new design as illustrated on the schematic map above, divides the area in two drainage areas.

The drainage water from Area 2 is now passing through the partly new Primary canal 1 - 3 - 11A - 19, which was constructed in Phase I.



### 3.2 The Secondary System

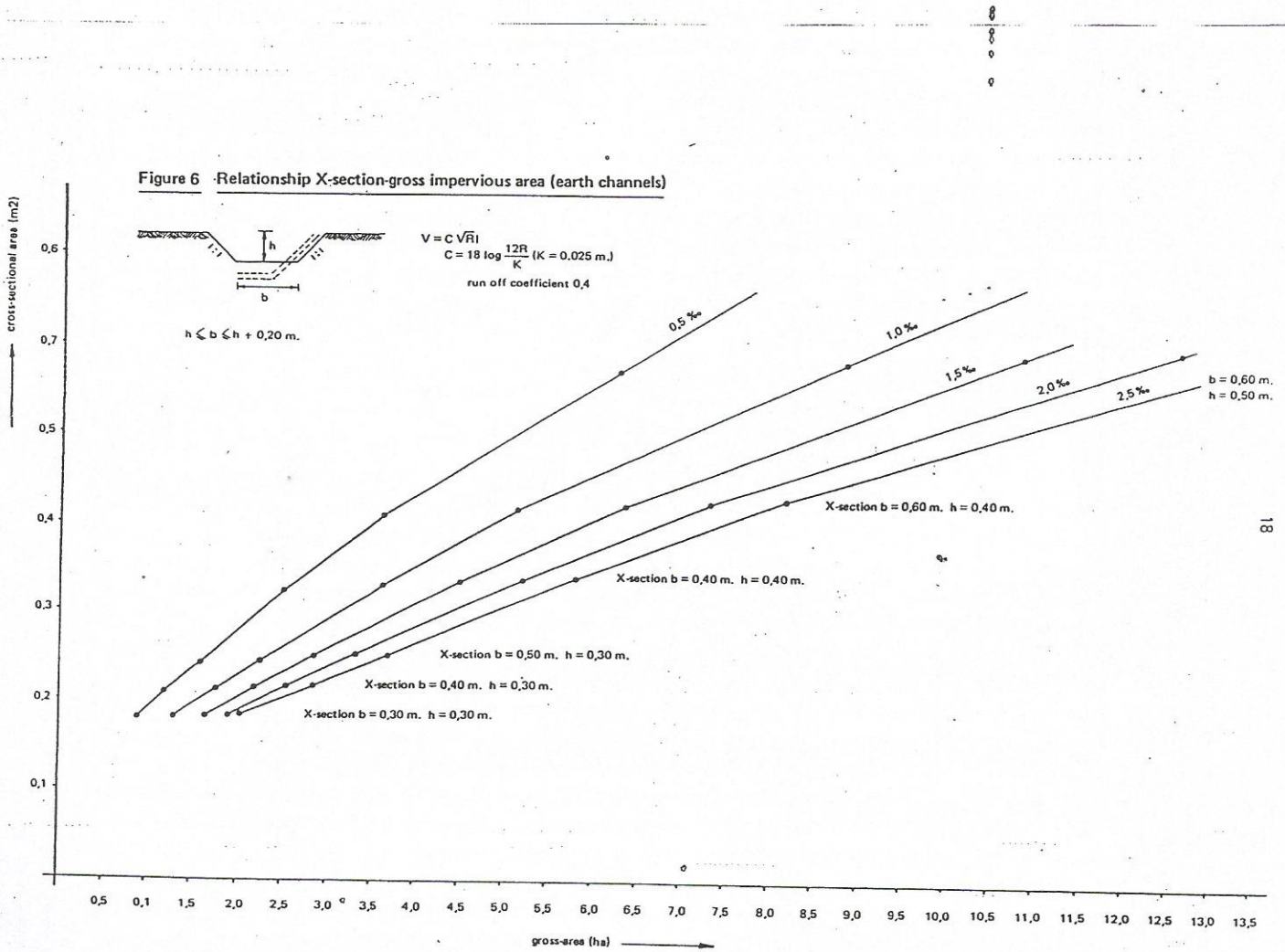
Just as the Primary System the Secondary System was planned to be constructed of unlined, open earth channels.

Below, an example of the designgraphs for different gradients is given to be able to calculate the gross impervious area that can drain safely onto that particular open earth channel.

Standard trapezoidal cross-sections are shown as points in the graph.

Similar graphs are available for rectangular (concrete) lined cross-sections. The construction of the secondary drainage channels takes place according to the results of the designgraphs.

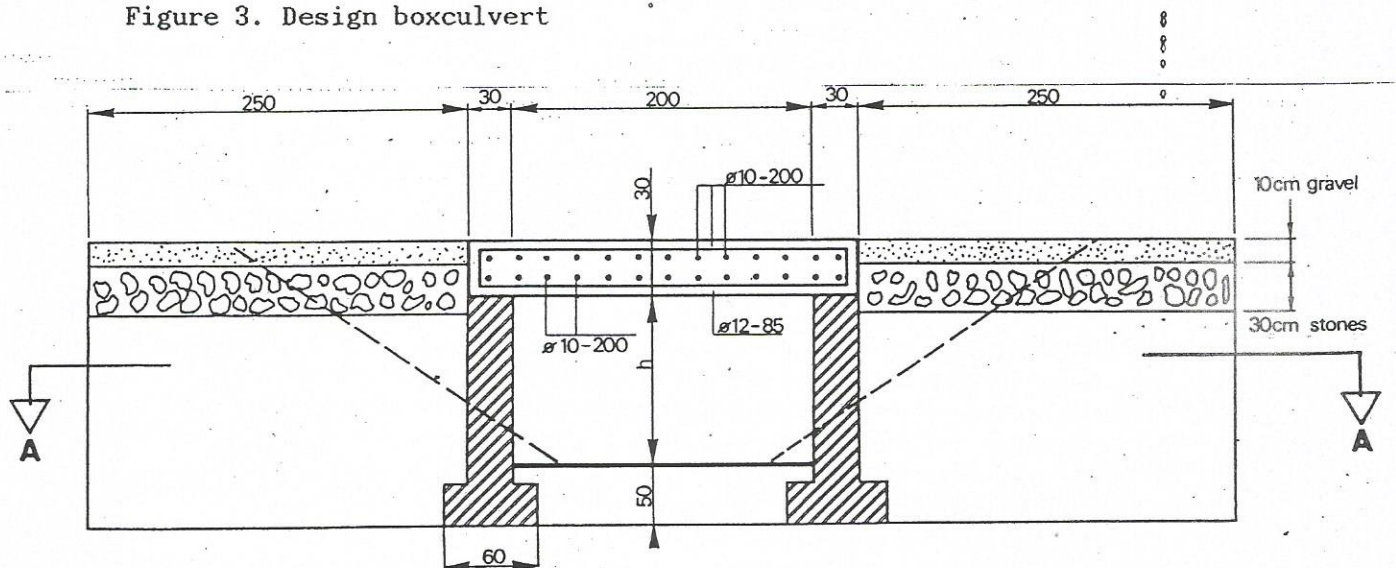
Figure 2. Designgraphs



### 3.3 Culverts

The culverts in the Primary System are bricklined boxculverts with a brick foundation and a reinforced concrete deck. Minor crossings and accesses are constructed from single or multiple 600 mm diameter pipeculverts, which are manufactured locally by the project. The production capacity has approximately been 25 pipes per month.

Figure 3. Design boxculvert



### 4.0 Execution and Phasing

#### 4.1 Transport and equipment

The proposal made in 1982 takes into account the availability of four tractors and eight tipping trailers for the transport of soil for the surface raising operations of 38,000 m<sup>3</sup>, which should simultaneously be carried out with the excavation work of 53,000 m<sup>3</sup>.

The work was planned to be carried out by 4 units and could have been finished in 350 working days for the surface raising operations, while another 270 working days were estimated to be required for the excavation work.

The total required equipment to finish the work within the proposed period of two years for the project were :

4 tractors, 8 tipping-trailers, a small vibratory roller, a shovel (or grader) and 200 spades and 50 wheelbarrows, that should at least have become available from other projects.

Up to May 1984 only one unit could operate in handlabour, but after the arrival of the Massey Ferguson loader-digger in May 1984, the project had more excavation capacity, but still only had the availability of one Shibaura tractor and trailer for transport of excavated soil in handlabour and a additional DAF tipper, which could be loaded by the Massey Ferguson loader-digger.



Two Shibaura tractors and trailers were purchased on account of the Road Maintenance Unit Project by the Netherlands Government in 1982 and were planned to be used in the Rainwater Drainage Project, but one tractor was completely out of order and the second one has been and is only for 50 % in working condition.

The KDC/KADA workshopmanager reported, that it is impossible to obtain spare parts for Shibaura.

#### 4.2 Excavation and terrainraising

Instead of the planned 4 teams for excavation and terrainraising operations in handlabour, only one team has been operational with the one remaining set of Shibaura/+ two trailers. Because of the long waiting time of loading in handlabour, the DAF tipper could only be effective, when loaded by the MF loader-digger.

Consequently from the total of 38,000 m<sup>3</sup> of soil, which should have been transported to 4 major problem areas with a low elevation, only approximately 5,000 m<sup>3</sup> could be coped with and used for the terrain raising operations.

#### 4.3 Production

From the total excavationwork to be executed the following sections still have to be excavated, are under construction or have been completed :

Table 1. Summary of channel excavation per section

SUMMARY			
Section Location	Section Length m	Remaining Quantity m <sup>3</sup>	Completed m <sup>3</sup>
1 - 19A	5890	8800	24840 *
20A - 43B	5525	500	13100 *
6 - 4B	1100	270	800
8 - 7B	1000	-	1030
11 - 9A	920	-	1440
13 - 4	1060	860	
14 - 12	890	2100	
16 - 15B	1010	1650	
22A - 22B	610		500
24 - 27	1050		180 (under constr.)
29 - 35	910		35
36A - 40	1200	960	
41 - 48B	3000	6750 (culverts under constr.)	
	24165	21890	41925

\* 11340 m<sup>3</sup> additional excavation

#### 4.4 Culvertsconstruction

Table 2. Culverts constructed

Type	Number
Boxculvert 1.5 x 1.5 x 7.00 m	28
Boxculvert 1.5 x 1.5 x 3.00 m	2
Boxculvert 1.0 x 1.25 x 10.00 m	7
Boxculvert 1.0 x 1.25 x 7.00 m	5
Boxculvert 0.8 x 1.25 x 7.00 m	2
Pipeculverts (double)	14
Pipeculverts diam. 600 mm (single)	14

#### 4.5 Productioncapacity

In the proposal of 1982, it was estimated, that one working unit could excavate 50 m<sup>3</sup>/day and for the terrain raising operations a capacity of 27,5 m<sup>3</sup>/day was feasible. (For working units see 7.3 and 7.4)

The estimates on capacity and time have proven to be realistic, because since May 1984, in 23 working months (in the rainy season, earth-excavationworks and transport is not possible), 41925 m<sup>3</sup> has been excavated and 5000 m<sup>3</sup> of the terrainraising has been executed.

$$41925 \text{ m}^3 / 50 \text{ m}^3/\text{day} = 840 \text{ workingdays}$$

$$5000 \text{ m}^3 / 27,5 \text{ m}^3/\text{day} = 182 \text{ workingdays}$$

$$1022 \text{ workingdays} / 23 = 44,4 \text{ months}$$

For each of the two teams consequently 22,2 working-months. It is not expected, that the remaining work can be executed at a higher speed, unless the transport capacity is improved.

#### 4.6 Labour costs.

In 1982, the labourcosts of one working unit was budgetted at LS.36/day. But the labourcosts have gone up with 460 % since 1982, so the labourcosts for a working unit for excavation will cost now LS.166/day. The remaining work to be done amounts to:

Table 3. Remaining excavationwork per working unit

Per working unit	Days	Costs
Excavation 21890 / 50 m <sup>3</sup>	438	LS 72708, -
Terrain raising 33000 / 27.5 m <sup>3</sup>	1200	LS 199200, -
	1638	LS 271908, -

The Kassala District Council can only generate 2 working units instead of the 4 working units proposed. Three working units might be able to finish the work at the end of 1988.

#### 5.0 Excavationwork per section and progress



Table 4. Excavationwork section 1 - 19A

Location	Length m	Quantity m <sup>3</sup>	Completed m <sup>3</sup>
1 - 2	830	4100	-
2 - 3	550	3300	-
3 - 6	200	1400	-
6 - 8	330		2000
8 - 8A	400		1000
8A - 11	110		600
11 - 14	320		2200
14 - 16	330		2000
16 - 17	220		1400
17 - 18	500		2700
18 - 19	600		3700
19 - 19A	1500		9240
1 - 19A	5890	8800	24840

The sections 1 - 6 have not been completed yet, because at the crossing with the main asphalt road at nodal point 6 , a 6" waterpipeline still has to be shifted, in order to be able to build the culvert for the road-crossing. (25 m crossing)

The Public Electricity and Water Cooperation has requested to postpone the operation until they have received the waterpipes from the Kassala Waterpipes Project, whereas the 6" line will be replaced by a 10" line in the course of this year.

Along the section 6- 8 - 8A, a 6" waterpipeline had to be shifted over the total length of 730 m.

The funds for the realignment of the main waterpipe were born by the Kassala District Council and the Public Electricity Cooperation together. The final works on this section are not completed yet, but most of the excavationwork is completed.

Section 19 - 19A is a new section, which was not in the proposal, but had to be constructed, because it appeared that the excess water was being blocked up at nodal point 19. An extension of 1500 m with a total excavation of 9240 m<sup>3</sup> is constructed to the nearestby khor in the first Phase.

The section 8A - 11 has become a lined construction, because it is a deep section, right along the asphalt road.

Table 5. Excavationwork section 20A - 43B

Location	Length m	Quantity m <sup>3</sup>	Completed m <sup>3</sup>
20A - 20B	130	150	-
20B - 20	270	120	-
20 - 21	120	-	-
21 - 22	420	90	8 -
22 - 23	265	20	8 -
23 - 27	210	40	0 -
27 - 28	230	50	0 -
28 - 35	255	30	-
35 - 40	170		200
40 - 41	690		1100
41 - 42	540		2700
42 - 43	525		1900
43 - 43A	1200		5100
43A - 43B	500		2100
20A - 43B	5525	500	13100

Table 6. Excavationwork section 6 - 4B

Location	Length m	Quantity m <sup>3</sup>	Completed m <sup>3</sup>
6 - 5	200		350
5 - 4	400		450
4 - 4A	240	130	
4A - 4B	260	140	
6 - 4B	1100	270	800

Table 7. Excavationwork section 8 - 7B

Location	Length m	Quantity m <sup>3</sup>	Completed m <sup>3</sup>
8 - 7	200		360
7 - 7A	400		450
7A - 7B	400		220
8 - 7B	1000		1030



Table 8. Excavationwork section 11 - 9A

Location	Length m	Quantity m <sup>3</sup>	Completed m <sup>3</sup>
11 - 10	150		300
10 - 10A	100		200 + lining
10A - 9	420		800
9 - 9A	250		140
11 - 9A	920		1440

Table 9. Excavationwork other sections

Location	Length m	Quantity m <sup>3</sup>	Completed m <sup>3</sup>
13 - 4	1060	860	
14 - 12	890	2100	
16 - 15B	1010	1650	
22A - 22B	610		500
24 - 27	1050		180 (under constr)
29 - 35	910		35
36A - 40	1200	960	
41 - 48B	3000	6750 (culverts)	
39 - 39A	500	1100 (new)	
	10230	13420	715

## 6.0 Constraints and delays

### 6.1 Transport facilities.

Of the terrain raising operations only 5000 m<sup>3</sup> have been executed, because only two teams have been excavating. The proposal has been too optimistic about the possibility that transport could be made available from other sections within the KDC. It can not be expected that more transport facilities can be made available for this year and next year for the remaining 33000 m<sup>3</sup>.

### 6.2 Pipeline crossings.

Many major underground pipeline crossings had to be constructed that could not have been foreseen. Raising of funds and negotiations with the Public Electricity and Water Cooperation took considerable time.

### 6.3 Pipeline shifting.

At section 6 - 8 - 8A a 6" waterpipeline had to be shifted for the construction of the new Primary channel over a distance of 730 m.l. The costs of the pipeline shifting were born by the PEWC and the KDC.

At nodal point 6 a waterpipeline has to be shifted for a box culvert construction. Within the framework of the Kassala Waterpipes project, the line has to be replaced by a 10" waterpipe and the PEWC has requested to postpone the operation until the necessary materials have arrived.

### 6.4 Collapse of channel slopes.

In the Primary channelsystems are 1500 m of newly constructed channel with very instable channel slopes. The sandy underground causes the slopes to collapse and the channels are easily blocked up after rainstorms. In the urban area the channels can not be kept at the desired width and two sections of 750 m each should be lined. Sofar these two sections have caused a lot of maintenance problems.

### 6.5 Hospital channel.

The channel in front of the hospital in the centre of the town had to be covered with concrete slabs, because it became blocked up by dirt and garbage thrown away by hospital visitors and caused unhygeinic conditions. The costs were completely born by the KDC, but the construction engineer of the Rain Water Drainage project and his crews were in charge of the job.

### 6.6 Souq(market) area.

Many extra provisions had to be made with the construction of the channels at the market area, costing a lot of time for negotiations and could not have been foreseen.

### 6.7 Bridges for population.

Across the newly constructed channels, many (walking)bridges had to be constructed to give exit to the houses. The time that the construction engineer had to spend on these matters could not have been foreseen. In many cases the costs of the bridges were born by the community.

### 6.8 Extra excavation of extensions.

The extra excavation for the extensions of the channels 1 - 19A and 20 - 43A amounting to 11340 m<sup>3</sup> took place during phase I in 1984.



## 7.0 Remaining work for the project and budget

### 7.1. Culverts to be constructed

Table 10.

Type	Number	Material costs	Labour costs	Total mat. costs	Total lab. costs
Boxculvert 1.5 x 1.5 m L= 7 m	13	7160	1350	93080	17550
Boxculvert 1.0 x 1.25 m L= 10 m	11	4330	1230	47630	13530
Boxculvert 0.8 x 1.25 m L= 7 m	11	3410	1190	37510	13090
Pipeculvert 600 mm (double) L= 11 m	15	2400	785	36000	11775
Pipeculvert 600 mm (single) L= 11 m	26	1380	580	35880	15080
Total costs culverts				250100	71025

### 7.2. Lining and retaining walls

A group of 5 labourers @ LS 6.5 /day  
 2 bricklayers @ LS 10.25/day can execute one m/day.

2.84 m<sup>3</sup> of stones @ LS 25 = LS 71  
 1 load of sand @ LS 60 = LS 60  
 4 bags of lime @ LS 20 = LS 80  
 2 bags of cement @ LS 35 = LS 70

LS 281

	Material costs/m	Labour costs/m
- Marabat main discharge 750 m	281	53
- Halanga main discharge 750 m	281	53

Material costs : LS 421.500

Labour costs : LS 79.500

### 7.3. Terrain raising low areas

The remaining quantity for terrain raising is about 33000 m<sup>3</sup>.  
 Two units for terrain raising, spreading, levelling and compaction of material consist of 12 unskilled labourers @ LS. 6.50/day

1 supervisor	@ LS.10	/day (for 2 units)
1 foreman	@ LS. 9	/day
1 assistant	@ LS. 8	/day
3 drivers	@ LS. 9	/day

The capacity of one working unit is 27.5 m<sup>3</sup>/day

33000 m<sup>3</sup> / 27.5 m<sup>3</sup> = 1200 days.

Because of lack of transport only two units can be formed and consequently the work will take 600 days.

Material/running costs are based on a daily fuel consumption of 60





### 8.2 Option A.

From the remaining Dutch budget it is possible to complete the culverts the terrain raising of the low areas and the excavation of the channels. The required funds are LS. 319.900, while the required funds from the Sudanese side are LS. 222.933. The spending rate is low and is approximately 600 days or 26 working months.

Table 12. Budget option A.

Budget in LS.	July 1987-'88	July 1988-'89	July '89-Sept'89
I	I	I	I
Sudan	102.892	102.892	17.149
Dutch	147.646	147.646	24.608

### 8.3 Option B.

In order to speed up the spending rate and the execution of the project, this option requires the purchase of an additional DAF FA 1600-300 tipper truck from the project's budget. As for transport of stones, sand gravel and soil and for maintenance work in the town, the KDC (and consequently the project) has the availability of:

- 1 DAF tipper (1983) in good condition
- 1 DAF tipper (1972) in 75 % working condition
- 1 Shibaura tractor + trailer in 50 % working condition

It may be assumed, that the material costs of the items # culverts and # lining and retaining walls can be brought down with 20 %, because the material costs include transport to the working sites, because the KDC has not enough transport capacity.

The working time for the item # terrain raising low areas can be brought down to 400 working days or 17 months.

The project can be finalized by December 1988.

Table 13. Budget Option B.

	Material/running costs in LS. (Dutch budget)	Labour costs in LS. (Sudanese b.)
Culverts	200.080	71.025
Lining and retaining walls	337.200	79.500
Terrainraising low areas	69.800	79.200
Excavation channels	nil	72.708
DAF tipper FA 1600-300	105.000	-
Total	712.080	302.433

From the remaining Dutch budget the # culverts can be constructed, a DAF tipper can be purchased and the running costs for the terrain raising operations can be financed for about 10 % only.

An advantage of this option is, that the total project costs are brought down with LS. 29320 and the project can be finalized 7 months earlier, except for the unforeseen item # Lining and retaining walls.



Appendix 5 Sector Public Services

**General sector report**

General Sector Report  
Public Services

During the months April, May and June no budget has been available to start the activities as proposed and accepted in the sector reports on Health and Technical Education 1987. The budget is expected to be available from the first of July onwards.

Nevertheless, within the Regional Ministry of Public Services-- in the Education and Health Departments--action has been taken. Project managers for the various activities have been appointed, and a workplan is designed and discussed which can immediately be put into action as soon as the necessary financial means are available.

There have been frequent meetings between the KADA expert and the Director Generals of the Education and Health Department and other government officials and representatives of the target group which will benefit from the various activities.

The budget needs for the first quarter of the Sudanese financial year are calculated and submitted for approval to the KADA Manager and the Regional Ministry of Finance and Planning.

All order forms are prepared for purchasing the equipment needed for the activities which are going to start during the 3rd and 4th quarters of 1987.

### Education

Within the Department of Education the following projects and project leaders have been identified.

Project : Practical Education Programme  
Project Manager : Mr. Hassan Omer El Hassan

Project : Post Primary Technical Education  
Project Manager : Mr. Zakaria El Basha

Project : Post Intermediate Technical Education  
(investigation)  
Project Manager : Mr. Zakaria El Basha

Project : Secondary Technical Education  
Project Manager : Mr. Zakaria El Basha

Project : Rural Education Programme  
Project Manager : Mr. El Fadil El Tigani

During the month May an office was prepared in the Education Department in which the KADA expert, Anneli Joki-Hubach, and Mr. Zakaria El Basha, Mr. Hassan Omer El Hassan and Mr. El Fadil El Tigani will work together on the various KADA-related projects.

In the beginning of May the terms of reference for the VSO expert on curricula-development were discussed with the Director General.

During a work-visit to Khartoum the KADA expert discussed these with The VSO representatives in Khartoum. If no delay occurs the VSO expert is expected to arrive in Kassala by the beginning of October. His major task will be the development of a curriculum for the Post Primary Technical Education Programme in close cooperation with experienced teachers in technical education, representatives of the Trade Union and workshop owners in the local light industrial area. Within the Education Department, he will be the counterpart of Mr. Zakaria El Basha.

The Education Department has made an advance for the Practical Education Programme so as to facilitate the necessary fieldwork activities. At this time, all investigations needed to start the actual extension of the Practical Education Programme in the primary Schools are concluded. It was desirable not to postpone this preliminary research till the funds from the counter-value budget



were available, because this would have delayed the start of the programme to a later date than the first of October, which marks the beginning of a new school year in the rural area.

Talks have been held with the Technical Education Curriculum Development Section in the Ministry of Education in Khartoum in the month of May.

#### HEALTH

The Health Department has appointed a full-time health coordinator, Doctor Jamal Hashim Khalil to work in close cooperation with the KADA expert.

From the middle of May on his main concern has been the Assessment Study as described in the Sector Report on Health 1987. Many field-trips have been made during which the primary health care units and the rural hospitals in Aroma and Kassala District were visited.

Besides, a start has been made with the MCH Assessment Study and contacts have taken place with the EPI Office, TB-programme organizers and many others concerned with the health facilities in the KADA project area.

KADA has pre-financed the costs related to these investigations. To wait for financing from the counter-value fund budget would have severely delayed the work. For the field-trips the beginning of the rainy season had to be considered and the time-schedule for this Assessment Study is fairly tight. The reports and evaluation should be terminated by the end of September so as to function as a starting point for the 1988 Health Workplan.

#### SOCIAL WELFARE

The Department for Social Welfare is requested to submit some detailed proposals for women activities.

In Khartoum, contact is made with "Sudaniya"; an organization which functions as a marketing agent for women centres belonging to SGNED ( School Gardening and Nutrition Education Division). Handicrafts made by women in these centres are transported to the central shop in Khartoum where they are sold without the intervention of middle-men. KADA is requested to contact Productive Family Groups and Women Centres in Kassala and Aroma District and try to establish contacts between them and "Sudaniya".

Appendix 6 Other Sectors Report

THIRD OPTION  
KADA/KDC MECHANICAL/VEHICLE WORKSHOP  
QUARTERLY REPORT  
April-May-June

PROJECT : The "THIRD OPTION"  
SECTOR : Mechanical maintenance and repair  
RESPONSIBLE AGENCY : KADA  
ADVISOR : Edy Pauli

OBJECTIVES : Vehicle and mechanical maintenance  
and repair from a financially self-  
sufficient (profitable) workshop.

INTENDED CUSTOMERS-(TARGETS)

1st priority : KDC and KADA owned vehicles  
2nd priority : KADA supplied vehicles already handed  
over  
3rd priority : KADA related project vehicles  
4th priority : Others

TIME SCHEDULE : Proposed starting date August 1986  
: Phase 1 to last 2 years  
: Actual start date May 87-  
(arrival of w/s manager)

COST:

Allocated	- Construction equipping and running	749 000	Hfl
	- Revolving fund	105 000	Hfl
	- Sudanese contribution(KDC) approx.	400 000	LS (in kind)
	- Spent to date (01-07-87) approx.	65 000	Hfl

ACTIVITIES DURING REPORTING PERIOD

The workshop manager was appointed April 14th and arrived in Kassala on April 24th.

The first week was used in the reciprocal debriefing/ briefing of the workshop mechanic and the arriving w/s manager.

- With VSO and KDC an agreement was reached for VSO to provide the "shop floor supervisor" for the workshop by October 87. KADA will cover the costs.
- Ordering of emergency spares and materials to keep the fleet going
- Analyzing the supply system and situation



- With SRDC and KDC the objectives of the "Third Option" were analyzed in view of deciding the legal status of the "Third Option". The limited liability company form was recommended by SRDC, KFPC general manager (advisor to KADA) and accepted by all involved including KDC, subject to government agreement. A feasibility study has to be made. No one shareholder should hold more than 40% stock and some shares should be held by private.
- A steering committee was established with KDC, to proceed with the implementation of the "Third Option". Meetings have already started.
- Vehicle servicing methods have been reviewed (Not yet implemented)
- Vehicle/driver policy has been reviewed and a traffic coordinator's role approved.
- Prospecting for Sudanese potential future w/s manager.
- Analyzing and rationalizing future transport needs of KADA and some projects.
- Reviewing proposed new w/s layout plan
- Backing the Social Services Advisor in the field of vocational training:  
Several visits to Ministry of Education in Kassala and Khartoum to establish training material list for vocational training in the auto field and discussing training of trainers as well as in-service training. Some of the training materials will be shared with the workshop.

Contacts were established with:

- MTD/DAF - in Khartoum for repairing DAF trucks
- TASK - for occasional backing with repairs in Khartoum.
- TNO-WADS - follow up transport needs in Khartoum.
- TRANSINTRA - forwarding and clearing agents
- UNICEF - loan agreement for vehicles going to projects.
- ICRC - purchasing of semi-new vehicles and w/s equipments
- RRC/MALT - trying to find a "shop floor supervisor" (see VSO)
- LAND ROVER - trying to solve recurring abnormal faults on the ONE TEN Diesel vehicles.
- AFRICAR - to establish specifications, price and availability
- SHELL P.SUD - supply of lubricants

NOTES

- 1- Without a shop floor supervisor, with the mechanics at their present level of competence and the present w/s, tooling and stock situation the workshop performance can not improve. After arrival of the VSO (October 87) and arrival of spares stock (early 88) things should start improving (by 2nd quarter 88).  
Part of the new buildings construction is expected to start by the end of 1987.
  - 2- The work load on the vehicles is quite heavy and the vehicle situation (quantity, type and use) has to be reviewed- See separate report.
- 

Appendix 7 Mobile Maintenance Unit

PROJECT : Mobile Maintenance Unit  
SECTOR : Rural Water Supply  
RESPONSIBLE AGENCY : National Corporation for the Development of Rural  
Water Resources  
PROJECT MANAGER : Not yet defined  
ADVISOR : Rob Bom

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OBJECTIVES

The maintenance and repair of all water providing equipment, being mechanical and electrical driven pumps, diesel engines, generators and switchboards as main item.



TIME SCHEDULE

Start of the project in April 1987, with a projected period of two years.

COSTS :

Allocated in 1987	Dfl 167,000.-
Spent until 1-7-1987	Dfl 92,489.-

ACHIEVEMENTS:

General

The vehicle, a Landrover van, arrived in Kassala on the 24th of June.

PROGRESS 2nd QUARTER 1987

A design was made for building and installing a home-base for the mobile maintenance unit. This so called homebase exists of two empty containers to be placed on the yard of the Rural Water Corporation, one as store for the spare parts, the other as small workshop with specialized and/or heavy tools which are only taken out into the field when really needed. This set up also includes a small office and a parking place for the Landrover.

Further progress was not achieved because other activities took up a lot of time. The Wad Sherifei project was taken over for the time being and also the daily problems concerning lack of maintenance and failures in Kormuta, Forestry and Tajuj Project were taken care of by the advisor.

PROBLEMS :

DUTCH OBSERVATIONS :

Not foreseen in Holland is the need of a big roof, covering the complete homebase, to provide workable conditions.

SUDANESE OBSERVATIONS :

No project manager was identified yet.

FUTURE ACTIVITIES :

General

Training two mechanics/drivers to run the unit by themselves, including administration and stockkeeping.

PLANNED ACTIVITIES 3rd QUARTER :

Handing over Wad Sherifei Project and preparing Landrover when tools arrive.

REMARKS :

It is very hard to find people who are capable of and willing to learn all the skills required.

Appendix 8 Budget Countervalue Funds Fiscal Year 1987/88

COUNTERVALUE FUND BUDGET G.O.S./G.O.N. FISCAL YEAR 1987/1988

THE NEW KADA PROJECTS

1. Ministry/Dep. : Finance and Planning      2. No. project : 1/5
3. Project title : Management and Institutional Development
4. Proposed date of commencement : 1.7.1987
5. Location of the project : Eastern Region, Kassala / Aroma Districts
6. Proposed date of completion : 1990
7. Total costs of the projects :  

	Local currency	Foreign currency *	Total
	1,038,000	1,402,000	2,440,000

(One Sudanese Pound equals one Dutch Guilder; 1s.1 = Dfl.1 )

8. Estimated budget					
8. Fiscal Year 1987/88 :	Local currency	Foreign currency *	Total		
a. Building & construction	312,500	-	312,500		
b. Machinery & equipment	250,000	299,000	549,000		
c. Vehicles	187,500	-	187,500		
d. Salary & wages (Holland)	-	184,000	184,000		
e. Training & running costs	288,000	452,000	740,000		
f. Missions (Holland)	-	467,000	467,000		

9. Source of foreign funding : Government of the Netherlands through KADA, Kassala

10. Source of local funding : Countervalue Funds G.O.S./G.O.N.

11. Objectives of the project :

To upgrade Government institution building through providing training opportunities for staff and to strengthen the overall management capabilities of the regional departments

\* sofar allocated for the Dutch budget year 1987



BREAKDOWN OF THE NEW KADA PROJECT EXPENDITURES, FISCAL YEAR 1987/1988

Project title : Management and Institutional Development

Project no. : 1/5

Item	Local currency	Foreign currency	Total
<b>A. BUILDING &amp; CONSTRUCTION</b>			
1. Basic construction	250,000	-	250,000
2. Houses	-	-	-
3. Offices	62,500	-	62,500
4. Storages	-	-	-
<b>B. MACHIN. &amp; EQUIPMENT</b>			
1. Tractor	-	-	-
2. Agric. equipment	-	-	-
3. Pumps	-	-	-
4. Furniture	150,000	-	150,000
5. Library/office equip.	100,000	299,000	399,000
<b>C. VEHICLES</b>			
1. Delivery	-	-	-
2. Landrover	-	-	-
3. Pick up	187,500	-	187,500
<b>D. SALARY AND WAGES</b>			
1. Employee (Holland)	-	184,000	184,000
2. Seasonal labour )	-	-	-
3. Casual labour )	-	-	-
4. Missions (Holland)	-	467,000	467,000
<b>E. MISCELLANEOUS</b>			
1. Fuel and maintenance)	23,000	-	23,000
2. Transportation )	-	-	-
3. Custom and tax duties	-	-	-
4. Training	175,000	452,000	627,000
5. Library / V.E.S.	90,000	-	90,000
<b>GRAND TOTAL</b>	<b>1,038,000</b>	<b>1,402,000</b>	<b>2,440,000</b>





BREAKDOWN OF THE NEW KADA PROJECT EXPENDITURES, FISCAL YEAR 1987/1988

Project title : Border Area Pilot Project

Project no. : 2/5

Item	Local currency	Foreign currency	Total
<b>A. BUILDING &amp; CONSTRUCTION</b>			
1. Basic construction	114,000	70,000	184,000
2. Houses	-	-	-
3. Offices	20,000	-	20,000
4. Storages	-	-	-
<b>B. MACHIN. &amp; EQUIPMENT</b>			
1. Tractor	60,000	-	60,000
2. Agric. equipment	144,000	96,000	240,000
3. Pumps	-	-	-
4. Furniture	-	-	-
5. Library/office equip.	-	-	-
<b>C. VEHICLES</b>			
1. Delivery	-	-	-
2. Landrover	-	176,000	176,000
3. Pick up	-	-	-
<b>D. SALARY AND WAGES</b>			
1. Employee (Holland)	-	63,000	63,000
2. Seasonal labour )	191,000	-	191,000
3. Casual labour )	-	-	-
4. Missions (Holland)	-	-	-
<b>E. MISCELLANEOUS</b>			
1. Fuel and maintenance)	137,000	-	137,000
2. Transportation )	-	-	-
3. Custom and tax duties	-	-	-
4. Training	115,000	33,500	148,500
<b>GRAND TOTAL</b>	<b>781,000</b>	<b>438,500</b>	<b>1,219,500</b>





BREAKDOWN OF THE NEW KADA PROJECT EXPENDITURES, FISCAL YEAR 1987/1988

Project title : Primary Health Care

Project no. : 3/5

Item	Local currency	Foreign currency	Total
<b>A. BUILDING &amp; CONSTRUCTION</b>			
1. Basic construction	225,000	-	225,000
2. Houses	-	-	-
3. Offices	-	-	-
4. Storages	-	-	-
<b>B. MACHIN. &amp; EQUIPMENT</b>			
1. Tractor	-	-	-
2. Agric. equipment	-	-	-
3. Pumps	-	-	-
4. Medical equipment	94,000	31,500	125,500
5. Generators	-	42,000	42,000
<b>C. VEHICLES</b>			
1. Delivery	-	-	-
2. Landrover	-	220,500	220,500
3. Pick up	-	-	-
4. Truck	174,000	-	174,000
<b>D. SALARY AND WAGES</b>			
1. Employee	-	-	-
2. Seasonal labour )	110,000	-	110,000
3. Casual labour )	-	-	-
4. Missions (Holland)	-	31,500	31,500
<b>E. MISCELLANEOUS</b>			
1. Fuel and maintenance)	52,500	-	52,500
2. Transportation )	-	-	-
3. Custom and tax duties	-	-	-
4. Training	80,000	-	80,000
<b>GRAND TOTAL</b>	<b>735,500</b>	<b>325,500</b>	<b>1,061,000</b>





BREAKDOWN OF THE NEW KADA PROJECT EXPENDITURES, FISCAL YEAR 1987/1988

Project title : Rural Drinkwater Supply

Project no. : 4/5

Item	Local currency	Foreign currency	Total
<b>A. BUILDING &amp; CONSTRUCTION</b>			
1. Basic construction	449,000	-	449,000
2. Houses	-	-	-
3. Offices	-	-	-
4. Storages	-	-	-
5. Wateryard	-	241,000	241,000
<b>B. MACHIN. &amp; EQUIPMENT</b>			
1. Tractor	-	-	-
2. Agric. equipment	-	-	-
3. Pumps	-	500,000	500,000
4. Fixtures	305,000	404,000	709,000
5. Heavy duty equipment	-	2,466,000	2,466,000
<b>C. VEHICLES</b>			
1. Delivery	-	-	-
2. Landrover	-	147,000	147,000
3. Pick up	-	-	-
<b>D. SALARY AND WAGES</b>			
1. Employee	-	-	-
2. Seasonal labour )	-	-	-
3. Casual labour )	-	-	-
4. Missions (Holland)	10,000	-	10,000
<b>E. MISCELLANEOUS</b>			
1. Fuel and maintenance)	327,000	-	327,000
2. Transportation )	-	-	-
3. Custom and tax duties	-	-	-
<b>GRAND TOTAL</b>	<b>1,091,000</b>	<b>3,758,000</b>	<b>4,849,000</b>





BREAKDOWN OF THE NEW KADA PROJECT EXPENDITURES, FISCAL YEAR 1987/1988

Project title : Technical Education

Project no. : 5/5

Item	Local currency	Foreign currency	Total
<b>A. BUILDING &amp; CONSTRUCTION</b>			
1. Basic construction	620,000	-	620,000
2. Houses	-	-	-
3. Offices	-	-	-
4. Storages	-	-	-
<b>B. MACHIN. &amp; EQUIPMENT</b>			
1. Tractor	-	-	-
2. Agric. equipment	-	-	-
3. Pumps	-	-	-
4. Educational equipment	250,000	409,000	659,000
<b>C. VEHICLES</b>			
1. Delivery	-	-	-
2. Landrover	-	60,000	60,000
3. Pick up	-	-	-
<b>D. SALARY AND WAGES</b>			
1. Employee	-	-	-
2. Seasonal labour )	36,000	-	36,000
3. Casual labour )			
<b>E. MISCELLANEOUS</b>			
1. Fuel and maintenance)	-	-	-
2. Transportation )			
3. Custom and tax duties	-	-	-
4. Training	22,000	-	22,000
<b>GRAND TOTAL</b>	<b>928,000</b>	<b>469,000</b>	<b>1,397,000</b>

COUNTERVALUE FUND G.O.S./ G.O.N. BUDGET FISCAL YEAR 1987/1988

BUDGET SUMMARY OF THE NEW KADA PROJECTS  
(Sudanese Pounds x 1000)

<u>Project Title</u>	<u>Total</u>	<u>Building &amp; construct.</u>	<u>Machin.&amp; equipm.</u>	<u>Wages &amp; salary</u>	<u>Vehicles</u>	<u>Training</u>
Man. & I.D.	1,038.0	312.5	250.0	-	187.5	288.0
B.A.P.P.	781.0	134.0	144.0	191.0	60.0	252.0
P.H.C.	735.5	225.0	94.0	110.0	174.0	132.5
Rural WS	1,091.0	449.0	305.0	-	-	337.0
Techn.Educ.	928.0	620.0	250.0	36.0	-	22.0
<b>GRAND TOTAL</b>	<b>4,573.5</b>	<b>1,740.5</b>	<b>1,043.0</b>	<b>337.0</b>	<b>421.0</b>	<b>1,031.5</b>



Appendix 9 Countervalue Funds

Date :Kassala, 6.6-1987  
Ref.Nr : deV/ 1207

Re : Disbursement Countervalue Funds for KADA programme activities

Dear Mr. Osman,

I hereby like to confirm our discussion on 21.5.1987, in Khartoum with Dr. Abdul Rahman, Mss. Widad, (M.F.E.P.) Mr. Hassan Jahffar (Foreign Loan Dep.), yourself, Drs.A.van Loopik (Dutch Embassy) and from KADA Mr. Achterberg and myself.

The following points have been agreed upon :

- 1 - The local funding of the KADA programme will take place through the Countervalue Funds.  
The estimated amount of 4.5 mil. for the financial year 1987/'88 will be made available to the KADA programme in one lumpsum payment
- 2 - The whole amount will be transferred to a special RMFE/ KADA a/c in the Bank of Khartoum local branch in Kassala to be handled by three persons (authorized accountant, Regional Director of Planning and KADA programme manager or their substitutes) all residing in Kassala.
- 3 - A detailed budget for the KADA estimated expenditures for the financial year 1987/88 will be made conform Sudan Government breakdowns. This budget summary based on the KADA workplan 1987, will be submitted to the M.F.E.P. in Khartoum, attention Regional Planning Department. After being approved, the budget will be forwarded to the Foreign Loan Department of the M.F.E.P. which will transfer the full amount requested for 1987/'88, to the special a/c mentioned under point 2.
- 4 - The Regional Ministry of Finance and Economics will second an English speaking qualified accountant to KADA. He will be responsible for the quarterly accounting of the local expenditures of the KADA programme and activities and report to the Regional Planning Department of the M.F.E.P in Khartoum through the Regional Department of Planning in Kassala. He will work under the daily supervision of the KADA programme Administrator.
- 5 - During each quarter funds will be drawn from the special R.M.F.E./ KADA a/c according to the estimated quarterly planned expenditures. The funds will be disbursed through the regular KADA a/c to the programme activities according to the planned expenditures of the workplan in the different sectors.
- 6 - The whole amount of the countervalue fund will be made available to the KADA programme through the Foreign Loan Department in the month of July 1987.

With kind regards,

J.A. de Vries

Dir. Regional planning Dep.  
Kassala.



Kassala, 27.6.1987  
Ref.Nr. deV/1221

Re: Establishment and operating procedures of the MFE/KADA account

Dear Mr. Tahir,

Following our discussion on 27.6.1987 and further to my letter concerning the disbursement of countervalue funds for the KADA programme activities, ref.nr. deV/1207 dated 6.6.1987, I hereby want to confirm the following points concerning the operating of the MFE/KADA account:

1. It is the intention of the Regional Ministry of Finance and Economics to open an combined MFE/KADA account at the Bank of Khartoum , Kassala Branch solely for the disbursement of the countervalue funds for the KADA programme activities as formulated in the KADA workplans.
2. It is KADA's understanding that the Regional MFE is not authorized to open an account with the Bank of Khartoum, Kassala Branch with more than two operators, one of which has to be an accountant and one a senior officer (excluding the D-G of MFE) of the Ministry of Finance. For this reason KADA can not be a signatory to this combined MFE/KADA account.
3. Any withdrawal of funds from the MFE/KADA a/c can only be initiated by a written request for funds by the KADA Programme Manager or his substitute and shall be approved by the D-G of the MFE personally.
4. During one quarter any written request for funds as mentioned under point 3 will refer to the necessary estimated expenditures concerning that quarter as requested by the project leaders for all project activities within the sectors of the KADA programme. A copy of this written request will be send to the concerned Director-Generals.
5. Any withdrawal can only be made with the purpose to transfer funds to the regular KADA account at the Bank of Khartoum, Kassala Branch for the disbursement and accounting of funds planned by each sector according to the KADA workplans.
6. The English speaking Sudanese accountant, who will be seconded to KADA, shall quarterly account to the Department of Planning of the MFEP in Khartoum, through the Regional MFE concerning all local expenditures. Quarterly a progress report will justify these expenditures. Withdrawal of any funds will not depend on the quarterly accounting of the local expenditures.
7. KADA will receive quarterly (a copy of) the original Bank Statement of the MFE/KADA account at the Bank of Khartoum, Kassala Branch.
8. This procedure is subject to change whenever deemed necessary by the Regional MFE or KADA.

With kind regards,

J.A. de Vries

D-G Min. of Fin. and Economics  
Kassala



Appendix 10 Distribution List of the Progress Report

Name	Function
Mr. Mohamed Osman Hamed Karar	Governor of the Eastern Region
Mr. Ismail Yakoub	Deputy Governor
Mr. Mohamed Ahmed Abdul Kareem	Exec. Officer Regional
Mr. Kamal Ahmed Abdul Kareem	Senior Exec. Officer
Mr. Mohamed Haj Ali	D.G. Housing and P.U.
Mr. Yousif Yakoub	D.G. Agriculture
Mr. Mohamed Sharif Fadul	D.G. Education
Dr. Mohy El Deen El Taieb	D.G. Health
Dr. Abraham Sheik Adrees	D. Health Kassala and Aroma
Mr. Mohamed Ahmed Tahir	D.G. Finance and planning
Mr. Omer Ahmed Jahfar	KADA Coordinator
Mr. Dia El Deen Hassan	D. of Animal Resources
Mr. Mohamed Hussein	D. of NCDRWR
Mr. Hassan Abdul Rahman	G. Manager of PEWC
Mr. Abass Abdula	Divisional Engineer
Mr. Abdul Haleem El Hassan	D. Horticulture Dep.
Mr. Mohy El Deen Ali	D. Forestry Dep.
Mr. Mohamed Ahmed Taha	D. Kassala Town W. S.
Mr. Khalil Hussein	Shallow wells Engineer
Mr. Osman Ohaj	Inspector Min. Education
Mr. Elsadig Yousif Bashir	D. Range and Pasture Adm.
Mr. Ali Elsafi Osman	P.L. of Salem Aleikum Project
Mr. Osman Musa	P.L. of drainage Project
Mr. Mohamed El Fatih	D. Improvement Services KDC
Mr. Adam Abdula Adam	D. Social Welfare
Mr. El Sawi Sliman	Inspector Agriculture
Mr. El Sari Kamal El Deen	Head of T.W.C.
Mr. Bashir Mohamed Ahmed	D. of Regional and Urban Planning
Mr. Mustafa Abass Muktar	D.G. Gash Delta Corporation
Mr. Mohy El Deen Abdula	D. Land Dep.
Mr. Osman Banaga	D. Economic Planning Regional
Mr. Kamal Fudal El Mola	D. Regional Survey Dep.
Dr. Abdul Rahman Ahmed	D. Central Min. of Finance, Regional Dev.
Mr. Nafih Mahmoud	D. Public Services
Mr. Mohamed El Naseeh Osman	Agricultural Reaserch Dep.

Foreign Organisations:

DHV, Holland	DSRC, Khartoum
UNHCR, Kassala	WFP, Kassala
UNDP, Khartoum	HVA, Kassala
WHO, Khartoum	DGIS, Holland
UNICEF, Khartoum	Netherlands Embassy, Khartoum
WORLD BANK, Khartoum	M.S.F., Holland, Khartoum
VSO, Khartoum	
WADS, Kassala, Khartoum	
SRC, Kassala	
FAO, Kassala	
DEMAS, Khartoum	
COR, Kassala	
OXFAM, Khartoum	