Disasters Emergency Committee:

Sudan Crisis Appeal

ETC (UK) Ltd

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CONTENTS

		PAGE
Contents		2
List of Acronyms		5
Executive Summary		7
1.0	Background to the Evaluation	8
1.1	**The Purpose of the Evaluation**	8
1.2	**DEC Agencies Participating in the Appeal**	8
2.0	The DEC Approach to the Evaluation	8
2.1	**Appointment of the Evaluation Team**	8
2.2	**Planning and Reporting System for DEC Participating Agencies**	9
3.0	ETC UK Approach to the Evaluation	9
3.1	**Team Members**	10
3.2	**Terms of Reference**	10
3.3	**Methodology**	10
4.0	ETC UK Field Contacts	11
5.0	Emergence of the Crisis	12
5.1	**Affected Population**	13
5.2	**Decision to Appeal**	15
6.0	The DEC Sudan Crisis Appeal	16
7.0	Participating DEC Agencies' Operations	17
7.1	**Types of Activity**	19
7.2	**Evidence of the Delayed Rains in 1998**	20
7.3	**Expenditure by DEC Agencies**	21
8.0	Evaluation Findings	22
8.1	**Restrictions on Humanitarian Space**	22
8.2	**Transport and Logistical Problems**	23
8.3	**The Need to Strengthen OLS**	23
8.4	**Non OLS Interventions**	25
8.5	**Activities in South Sudan**	25
8.6	**Activities in Government of Sudan Controlled Sudan**	25
8.7	**Advocacy**	26
8.8	**Performance Standards**	26

8.9 **Nutrition** 27
8.9.1 *General Ration* 27
8.9.2 *Nutritional Surveys* 27
8.9.3 *Supplementary and Therapeutic Feeding* 28
8.9.4 *Redistribution within Communities* 28
8.9.5 *Other Provisions in Feeding Centres* 29
8.10 **Perceptions of the DEC** 29
9.0 Efficiency 29
10.0 Effectiveness 30
11.0 Lessons Learnt 31
11.1 **DEC Performance** 31
11.2 **Need for Collective DEC Responses** 31
11.3 **Diversity in Response** 31
11.4 **Supplementary and Therapeutic Feeding** 31
11.5 **Management Activities** 32
11.6 **The DEC as an Institution** 32
11.7 **Evaluation of the DEC** 32
12.0 Evaluation Conclusions 32
12.1 **Size of the Emergency** 32
12.2 **Differences in Knowledge and Opinion about the Emergency** 33
12.3 **Project Planning Capacity** 33
12.4 **Differing Interpretations of the Emergency** 34
12.5 **DEC Agency Perception of the DEC** 34
12.6 **DEC Operational Sub-Committee** 35
12.7 **Support to OLS** 36
12.8 **Value of DEC Funds** 36
12.9 **Specific Terms of Reference** 36

TABLES

Table 1 Field Interviews (Northern Sector) 11
Table 2 Field Interviews (Southern Sector) 12
Table 3 Targeted Population, Food Requirement and Delivery in Bahr el Ghazal, 1998 15

Table 4	Final Allocation of Funds from the Sudan Crisis Appeal	16
Table 5	Delivery Channel by NGO of DEC Funds	17
Table 6	Final Expenditure	21
Table 7	Total DEC Expenditure	30

FIGURES

Figure 1	Major Routings for Delivery of DEC NGOs in Southern Sudan	18

MAPS

Map 1	Political Control in Southern Sudan	14

ANNEXES

Annex 1	DEC Reorganisation
Annex 2	Terms of Reference
Annex 3	Historical Context of the Emergency
Annex 4	UNHCU Timeline
Annex 5	Dynamics of a Garrison Town: Wau
Annex 6	Sudanese Vegetation Response to Rainfall
Annex 7	Activities of Individual Agencies

List of Acronyms

ALNAP	Active Learning Network on Accountability and Performance in Humanitarian Assistance
ARI	Acute Respiratory Illness
BEG	Bahr el Ghazal
BMI	Body Mass Index
CAFOD	Catholic Fund for Overseas Development
CARE	Co-operative Agency for Relief Everywhere
DEC	Disasters Emergency Committee
DfID	Department for International Development
EBC	Eastern Bank Camp
FAO	Food and Agricultural Organisation
GoS	Government of Sudan
GRA	Ground Rules Agreements
HAC	Humanitarian Aid Commission
HAI	HelpAge International
ICRC	International Committee of the Red Cross/Red Crescent
IDC	International Development Committee of the House of Commons
IDP	Internally Displaced Person(s)
IGAD	Inter Governmental Authority on Development
INGO	International Non Governmental Organisation
LPF	Logical Planning Framework
LWF	Lutheran World Federation
Merlin	Medical Emergency Relief Interventions
MSF	Medecins Sans Frontieres
NDA	National Defence Alliance
NDVI	Normalised Difference Vegetation Index
NGOs	Non Governmental Organisations
NPA	Norwegian People's Aid
OLS	Operational Lifeline Sudan
OSC	Operations Sub-Committee
PDF	Popular Defence Force
PHC	Primary Health Care
RASS	Relief Association of South Sudan
SCF	Save the Children Fund
SFC	Supplementary Feeding Centre
SPLA	Sudanese People's Liberation Army
SPLM	Sudanese People's Liberation Movement
SRCS	Sudanese Red Crescent Society
SRRA	Sudan Relief and Rehabilitation Association
SSDF	South Sudan Defence Force
SSUM	South Sudan Unity Movement
SSIM	South Sudan Independence Movement
TFC	Therapeutic Feeding Centre
ToR	Terms of Reference
UN	United Nations
UNHCR	United Nations High Commission for Refugees
UNHCU	United Nations Humanitarian Co-ordination Unit
UNICEF	United Nations Children Fund

USD	US Dollar
WFP	World Food Programme
WHO	World Health Organisation

Executive Summary

The evaluation examined the use of Disasters Emergency Committee (DEC) funds, raised from the British public, for DEC agency activities in Sudan. The DEC appeal, in May 1998, raised UK £ 6.4 million. The planning process underlying those activities was robust although reportage of outcome is more variable. The lack of an overall framework for both information and monitoring after the appeal, raises questions about the DEC acting solely as a mechanism for fund raising.

The 1998 Sudan Crisis was really two distinct crises: acute famine in northern Bahr el Ghazal generated by displacement due to war and a chronic food shortage across most of southern Sudan, compounded by drought and flood. The initial lack of donor responses to appeals to deal with the second crisis limited the ability to address the first. Many agencies, including DEC members, were concerned that, without donor support, the acute crisis could spread to those parts of southern Sudan already suffering severe food crises.

Media coverage of the events of 1998 focused on the acute crisis in northern Bahr el Ghazal; DEC agencies differed in their interpretations of it.

The activities of the DEC agencies were timely and appropriate. Serious issues were raised in the field about the difficulties of delivering therapeutic and supplementary feeding in war conditions where DEC member agencies did not control general rations.

Humanitarian assistance was delivered by a variety of routes. The larger DEC member agencies provided substantial management for these varying routes without which logistical problems would have been greater.

By charging transport costs to other donors, and minimising labour and agency management costs to the DEC, member agencies maximised the impact of humanitarian supply and service delivery. Although data on the location and size of the Sudan crisis were poor and conflicting, the DEC appeal allowed member agencies to begin famine prevention strategies that shifted to famine relief as the crisis evolved. Although probably representing only one per cent of the total expenditure in Sudan on humanitarian assistance last year, the impact of the activities was far greater than their actual monetary value would suggest.

1.0 Background

1.1 **Purpose of the Evaluation**

The evaluation of the DEC Sudan Crisis Appeal is a requirement of the new procedures (1997) under which the DEC, currently 15 non-governmental organisations (NGOs), operates (Annex 1). It aims, *inter-alia*, to provide a direct and independent analysis of DEC agencies' expenditure of appeal funds, both for the British donating public and for the DEC's appeal partners. In addition, the DEC agencies wish to use the evaluation to consolidate models of good practice in humanitarian assistance.

1.2 **DEC Agencies Participating in the Appeal**

Funds were allocated to the 12 DEC agencies who participated in the appeal: the British Red Cross Society, CAFOD, CARE International UK, Christian Aid, Concern Worldwide, Help the Aged, Medecins Sans Frontieres, Merlin, Oxfam, Save the Children, Tearfund and World Vision. Details of the final allocation of funds are provided in Table 4.

2.0 DEC Approach to the Evaluation

The DEC's new procedures require that the independent evaluation be made public within 12 months of the appeal launch date.

2.1 **Appointment of the Evaluation Team**

The Operations Sub-Committee (OSC) of the DEC drafted Terms of Reference (ToR) (Annex 2) and made recommendations to the Executive Committee on the selection of the evaluation team. The Executive Committee was responsible for the appointment of the evaluation team.

Background information on the DEC, the appeal process, conditions of participation, sums disbursed and copies of participating agencies' submissions were provided for the evaluation team by the DEC Secretariat.

2.2 **Planning and Reporting System for DEC Participating Agencies**

The participation of DEC agencies in an appeal is conditional on the submission of satisfactory plans and reports:

a) Within 48 hours of the decision to launch the appeal a '48-Hour Plan of Action' is submitted. It is reviewed by the OSC which, if necessary, will seek further clarification before the appeal is launched.

b) Within a month a '4-Week Plan of Action' is produced which includes details of the proposed activities and a breakdown of the budget.

c) The 'Seventh-Month Final Expenditure Report' includes a narrative specifying the actual activities and expenditures against those predicted in the 4-Week Plan of Action.

The evaluation team selected for the Sudan Crisis Appeal was ETC (UK). The selection, managed by DEC (OSC), followed tendering, short listing and an open ended interviewing.

3.0 ETC (UK) Approach to the Evaluation

ETC (UK) initially offered six people, in three teams, for the evaluation. In the event, seven people were used. An eighth, Pierson Ntata, a sociologist, worked alongside the south Sudan Operation Lifeline Sudan (OLS) team, investigating the beneficiary aspects of the interventions on behalf of the Active Learning Network on Accountability in Humanitarian Assistance (ALNAP).). One person visited Khartoum, and its southern garrison towns, Wau and Juba. Three teams were established in south Sudan to trace the four independent delivery routes of humanitarian assistance. These were:

- Southern Operation Lifeline Sudan (OLS)
- A consortium of churches
- International Committee of the Red Cross/Red Crescent (ICRC)
- Concern's independent route

3.1 Team Members

Team members were:

(i)	North Sudan	Mary Corbett, Nutrition
(ii)	South Sudan (OLS)	John Kirkby, Evaluation
		Elizabeth Kejji, Nutrition
(iii)	South Sudan (a	Phil O'Keefe, Team Leader
	church consortium)	Mark Jerome, Logistics
(iv)	South Sudan (ICRC)	Fred Wekesa, Agronomy

Team members worked across delivery routes in the field.

3.2 Terms of Reference

The full Terms of Reference are provided in Annex 2. Key questions for the evaluation team concerned the efficiency and effectiveness of DEC agencies in implementing activities financed by the DEC Sudan Crisis Appeal using donations from the British public.

ETC (UK) had, by contract, a total of 187 days for the evaluation of which 140 were to be field based. After initially contacting the heads of DEC member agencies to inform them of the beginning of the evaluation, ETC (UK) had a range of contacts with country and emergency desks in the United Kingdom as well as with academic institutions interested in the unfolding picture of the Sudan Crisis in 1998.

3.3 Methodology

ETC (UK) offered, as a model of good practice, a framework for addressing key issues in the evaluation; it was a modified version of UNHCR's evaluative framework (published in Hallam, 1998, ALNAP Good Practice Review). It also offered a debriefing in the field, to ensure that evaluation judgements reflected the decisions of field staff. A peer review hosted by the Overseas Development Institute and including representation from the Disaster Management Centre at Cranfield University was also proposed.

Central to the ETC (UK) approach was an attempt to draw out timelines of the unfolding of the crisis and timelines of DEC agency responses. Annex 3 provides an overall timeline for the emergence of the famine. Annex 4 provides an example of a timeline for a DEC agency intervention. In emergency action, timelines are critical for analysing efficient (costs) and effective (outcomes) responses.

Draft reports were considered by members of the DEC who provided the basis for verbal criticism at a meeting of DEC agencies in London.

The report is weighted towards the southern sector because most of the DEC member agencies operated there; in the northern sector, the only activities open to investigation were in the towns of Juba and Wau, both held by the Government of Sudan (GoS). In the southern sector, most reportage is of OLS activities because most DEC agencies worked through OLS. This was despite the fact that one third of the funds passed through non-OLS structures. These non-OLS structures include the ICRC and the routings of money through church structures both north and south. One DEC agency, Concern, remained outside the OLS, church and ICRC routings.

4.0 ETC (UK) Field Contacts

ETC (UK) field visits are detailed in Tables 1 and 2. ETC (UK) managed to visit all member agencies although contact with some was greater than with others.

Table 1 Field Interviews (Northern Sector)

KHARTOUM		FIELD
DEC Agencies and NGO Partners		
1. SCF.UK	Yes	Yes (A, B, S)
2. HelpAge International	Yes	Yes (A, B, S)
3. CARE	Yes	Yes (A, B, S)
4. OXFAM	Yes	Yes (A, B, S)
5. ICRC	Yes	Yes (A, B, S)
UN Agencies		
6. UNICEF		Yes (S)
7. UNCHR	Yes	

A – ACTIVITIES B – BENEFICIARIES S – STAFF

Table 2 Field Interviews (Southern Sector)

NAIROBI		LOKICHOGGIO	FIELD
DEC Agencies and NGO Partners			
1. Oxfam	Yes	Yes	Yes (A, B, S)
2.World Vision International	Yes	Yes	No
3. Tearfund	Yes	Yes	Yes (A, B, S)
4. Merlin	Yes	Yes	No
5. MSF (H)		Yes (MSF B & H)	Yes (MSF B & Swiss (S)
6. CARE	Yes	No	No
7. ICRC	Yes	Yes	Yes (Hospital) (A, B, S)
8. Christian Aid	Yes	(Supraid) (I) A Church Consortium	Yes (A, B, S) A Church Consortium
9. CONCERN	Yes	Yes	No
10. Diocese of Rumbek	Yes	Yes	Yes (A, B, S)
11. SCF	Yes	Yes	Yes (A, B, S)
UN Agencies and Other NGO Players			
OLS		OLS	Local administration (3)
UNICEF		A church consortium	
WFP			WFP
SRRA			A church consortium

A – ACTIVITIES B – BENEFICIARIES S – STAFF

5.0 Emergence of the Sudan Crisis

The DEC Sudan Crisis Appeal was made because, by late April 1998, the complex chronic emergency of southern Sudan was turning into an acute disaster calling for substantial humanitarian assistance. Continued war, coupled with poor harvests, has led the UN system, largely through the OLS, to launch a consolidated appeal for Sudan. This consolidated appeal, asking for US $109 million, was not officially activated until February 1998, although the donor community knew of its content from October 1997. For a variety of reasons, donor response was slow even though there had been sufficient early warning. Because of the consequent lack of donor funding, preparations to tackle the growing crisis were not begun. Early warnings particularly focused on the general ration needed for the hungry season from April to August. Donors reacted slowly because they hoped to exercise leverage on the peace process; they also mistrusted the figures used to calculate vulnerable populations, the targeting mechanisms and the critical needs appraisals. They were also dissatisfied with the

Sudanese People's Liberation Army's (SPLA) refusal of access to one International Non-Governmental Organisation INGO.

Map 1 outlines political control in southern Sudan. Of particular note is the number of government controlled garrison towns and the long distances involved in providing humanitarian assistance for those in SPLA towns and South Sudan Independence Movement (SSIM) areas. Annex 5 contains a description of a garrison town.

In January, the war escalated. One commander, Bol Kerubino, changed sides to join the SPLA and attacked the Government of Sudan (GoS) garrison town of Wau. The attack produced a large population displacement – 11,000 people left Wau in 10 days. It was estimated that a total of 70,000-100,000 people were displaced from the town of Wau and its environs between January and February, 1998.

This displacement, accompanied by looting and burning villages and crops by the chief protagonists in the war, associated armed groups and local ethnically rival groups, was accompanied by a ban on humanitarian assistance flights by GoS. The focus of the deepening crisis was northern Bahr el Ghazal where few OLS agencies had worked.

5.1 **Affected Population**

Table 3 contains details of the targeted population and the World Food Programme (WFP) food deliveries, projected and actual, from February to June 1998 in south Sudan. In May and June, as the crisis escalated, only about 50 per cent of food requirements to the targeted population were delivered.

The chronic conditions associated with the hungry season had been exacerbated by population displacement and the destruction of livelihoods in an escalating war: WFP had insufficient resources with which to address the emerging problem.

Political Control in Southern Sudan

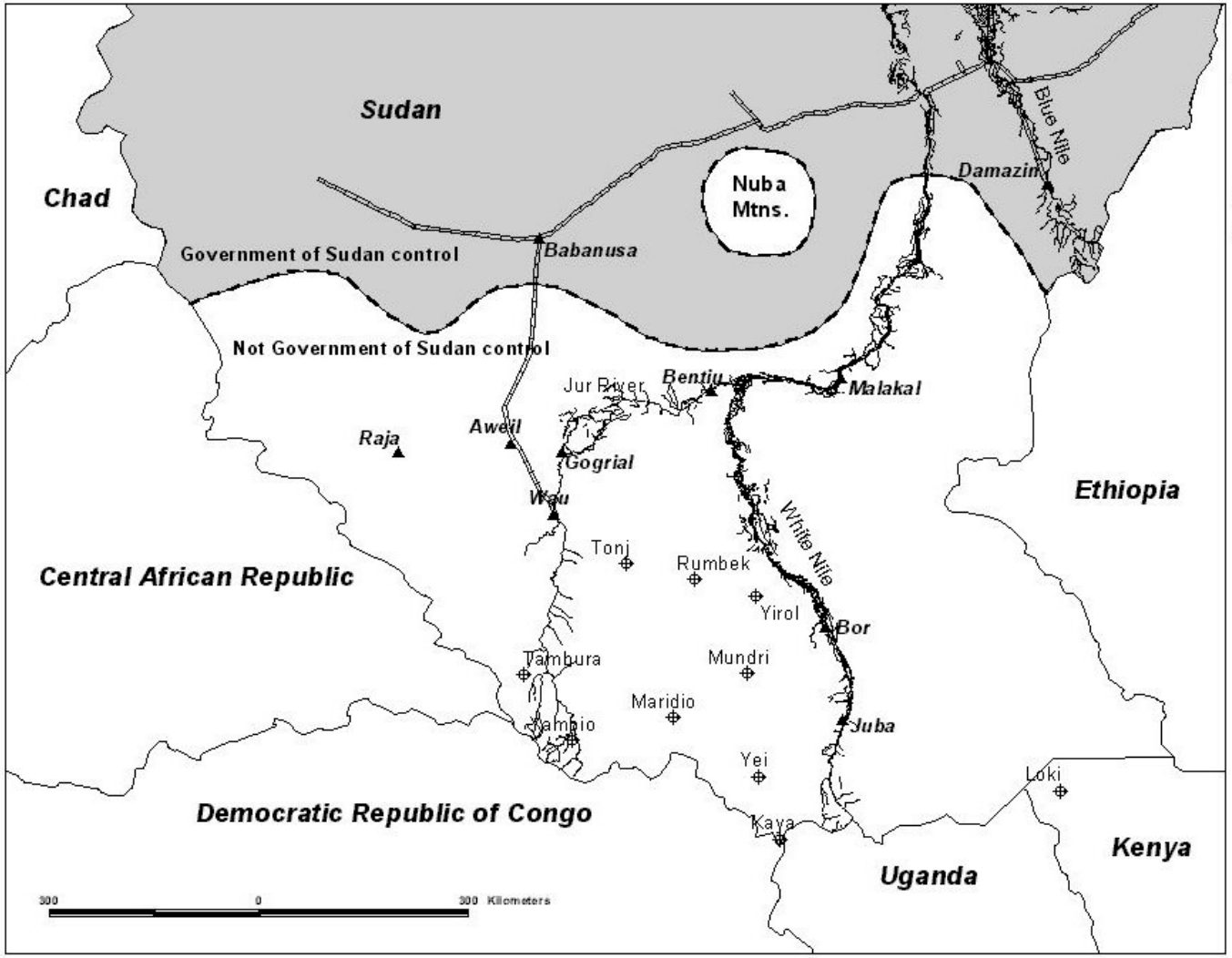


Table 3 Targeted Population, Food Requirement and Delivery in Bahr el Ghazal, 1998

MONTH	TARGET POPULATION ('000)	FOOD REQUIREMENT (MT)	DELIVERY (MT)
February	250	2,890	494.6
March	350	2,890	1,225.6
April	380	4,170	984.0
May	595	5,355	2,750.0
June	701	6,309	3,439.0

5.2 **Decision to Appeal**

Global press coverage of the emerging crisis in 1998, is credited with eventually raising some US$ 100 million from the donor community. In the UK, World Vision first alerted the DEC to events in southern Sudan. Initially, on April 27th 1998, the DEC Executive Committee decided not to make an appeal, arguing that the problem was one of chronic and endemic food shortages with pockets of greater need in Bahr el Ghazal. This decision was contested by World Vision, Christian Aid and CAFOD, who argued that they had sufficient evidence from the field of major famine caused by the displacement of people and the destruction of livelihood systems to warrant an appeal. More importantly, Christian Aid and CAFOD, who were not members of OLS, and who were not constrained in delivery by OLS protocols, argued that they were able to access the vulnerable population. World Vision, Christian Aid and CAFOD proceeded with individual appeals.

As the DEC continued to debate the timing of an appeal, the UK press discussed the 'split' in the DEC. Although the DEC Secretariat maintained the line that the key issue was OLS flight access, an underlying issue was the severity and extent of the famine. Christian Aid and CAFOD, with evidence of famine and without reliance on OLS flights, again argued strongly for an appeal. Save the Children Fund (SCF) released a document, funded by USAID, that emphasised the vulnerability of the southern Sudanese to famine. Because the report did not address the emergency in northern Bahr el Ghazal, some DEC agencies interpreted the report as opposing a DEC member appeal. In DEC discussions, SCF, supported by MSF, initially opposed an appeal although SCF argued that opposition was a tactical issue over the timing of an appeal, not opposition to an appeal *per se*. In the event, Kofi Annan announced a lifting of the GoS flight ban on May 2nd, 1998 and thus the obstacles to OLS intervention were

removed. Debate continued within the DEC about issues relating to an appeal. On May 15th, 1998, OSC recommended a DEC appeal. On May 21st, 1998, the Sudan Crisis Appeal was launched.

On May 28th, 1998, The Secretary of State for International Development (DfID) attacked the DEC appeal at a media conference organised by DEC members. This public argument was aired in an International Development Committee (IDC) of the House of Commons Sub-Committee on June 24th, 1998. The key criticisms were that the appeal was unnecessary, since the UK government would provide cash and that it muddled the message about Sudan's crisis in the public mind. The criticisms were repeated elsewhere provoking reaction from Oxfam and the DEC itself.

6.0 The DEC Sudan Crisis Appeal

In the three weeks following its launch, the DEC appeal raised UK £6.4 million from the British public. The 12 member agencies that took part in the appeal received funds allocated on a predetermined formula linked to their annual overseas expenditure of funds sourced in the UK. Table 4 contains details of the amounts, which came in five tranches, received by each agency. These figures contain two series of adjustments to various agencies, totalling UK £150,000.

Table 4 Final Allocation of Funds from the Sudan Crisis Appeal

AGENCY	AMOUNT	Share (Per Cent)
British Red Cross	1,089,280	17.02
CAFOD	322,600	4.65
Care International UK	371,200	5.80
Christian Aid	556,800	8.70
Concern Worldwide	147,200	2.30
Help the Aged	117,760	1.84
Medecins Sans Frontieres	118,960	1.39
Merlin	112,680	1.37
OXFAM	1,949,320	31.63
Save the Children	1,155,200	18.05
Tearfund	197,000	4.25
World Vision	192,000	3.00
TOTAL	6,400,000	

Two agencies, Merlin and Tearfund, sought affiliation to OLS. Concern indicated that although it would work closely with OLS, it would re-establish a separate operation. In the southern sector, there were four distinct delivery channels: OLS southern sector, a church consortium, Concern and ICRC. In the northern sector deliveries went through OLS and the Sudan Council of Churches, as well as ICRC's independent channel. ICRC is the only agency with its own facility for direct flights. Table 5 lists NGO affiliation by channel, although cross-channel delivery also existed.

Table 5 DEC Agencies' Delivery Channels

CHANNEL	NGOs
Southern Sector:	
(i) OLS Southern Sector	CARE, MSF, OXFAM, SCF, Tearfund,
(ii) A church consortium (non OLS)	Merlin, World Vision
(iii) Independent Access	Christian Aid, CAFOD
(iv) ICRC	Concern
	British Red Cross
Northern Sector:	
(i) OLS Northern Sector	HelpAge, CARE, OXFAM, SCF
(ii) Sudan Council of Churches	CAFOD, Christian Aid
(iii) ICRC	British Red Cross

7.0 Participating DEC Agencies' Operations

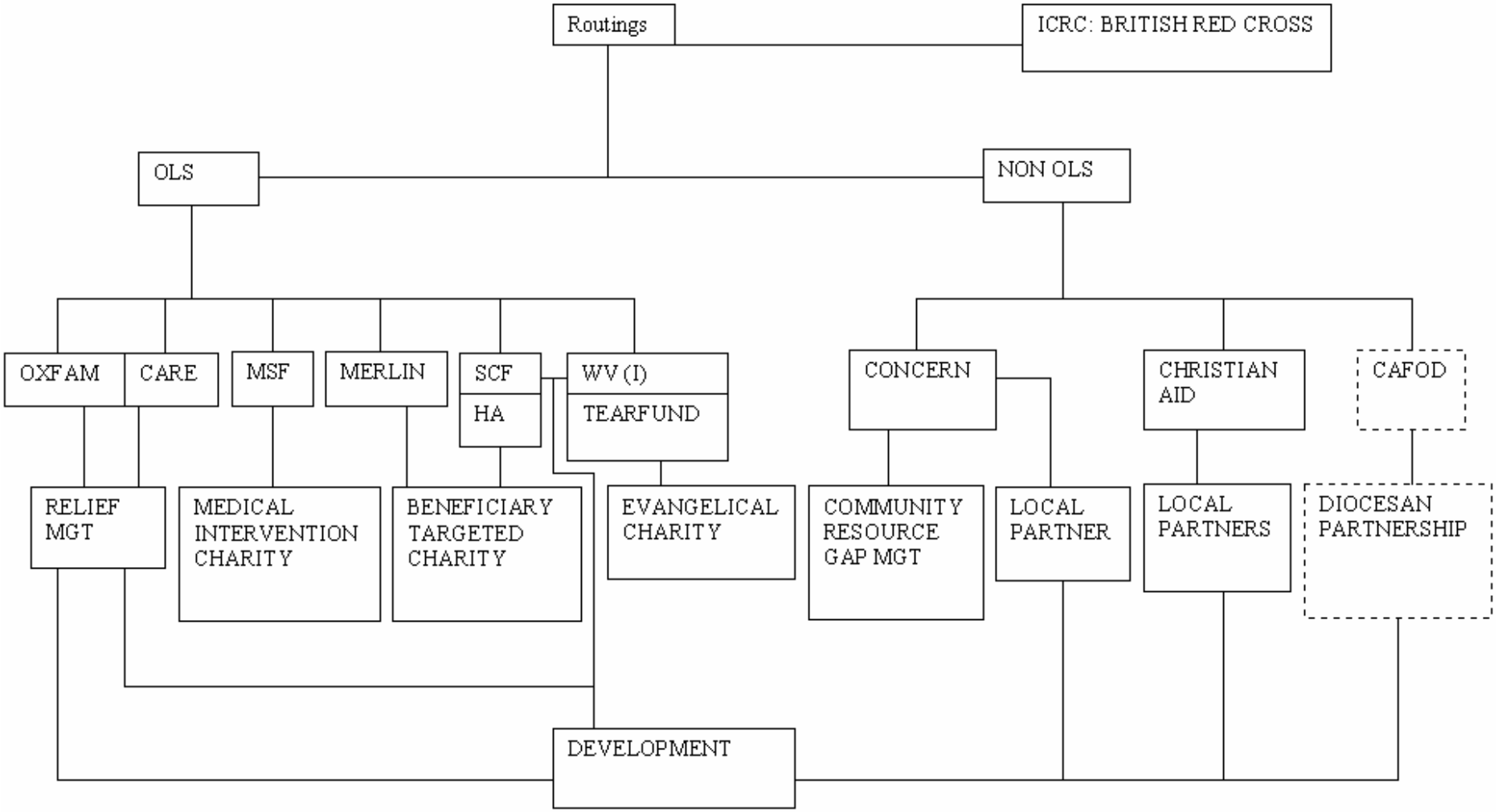
Annex 7 outlines the activities of individual agencies. Prior to the launch of the appeal, the 12 DEC agencies wishing to participate submitted 48-Hour Plans of Action to the DEC for OSC scrutiny.

The different DEC agency delivery routes are outlined in Figure 1. Individual NGOs with a field presence before the appeal or which were primarily development based had significantly more to do with overall emergency management. These attributes provided them with rapid and accurate intelligence.

The figure reveals that DEC agencies responding to the Sudan crisis included all forms of British civil organisation, with the exception of organisations affiliated to non-European

religions. Beneficiary groups (children and elderly) are directly targeted but adolescent and adult groups are not.

Figure 1 (next page) Major Routings for Delivery of DEC NGOs in Southern Sudan


Routings
ICRC: BRITISH RED CROSS
OLS
NON OLS
OXFAM
CARE
MSF
MERLIN
SCF
HA
WV (I)
TEARFUND
CONCERN
CHRISTIAN AID
CAFOD
RELIEF MGT
MEDICAL INTERVENTION CHARITY
BENEFICIARY TARGETED CHARITY
EVANGELICAL CHARITY
COMMUNITY RESOURCE GAP MGT
LOCAL PARTNER
LOCAL PARTNERS
DIOCESAN PARTNERSHIP
DEVELOPMENT

7.1 **Types of Activity**

Member agencies outlined a range of activities in their 4-Week Plans of Action. These activities can broadly be grouped into two major investments:

(i) Beneficiary targeted activities
(ii) Management activities to support humanitarian assistance delivery.

Some agencies, such as Oxfam, contributed to both types of activity.

Beneficiary targeted activities include

- Welfare interventions for displaced people, e.g. survival kits
- Famine prevention, e.g. seed and tools; fishing equipment
- General ration to areas excluded from OLS, e.g. Nuba Mountains
- Famine relief and associated medical interventions, e.g. supplementary and therapeutic feeding

Management activities include

- Transport (e.g. aircraft hire), infrastructure repair and expansion (e.g. Lokichoggio airport apron)
- Management (e.g. provision of analytical or management capacity)

As the 4-Week Plans of Action were established by detailed field reconnaissance and consultation with partners, they prioritised the activities needed to address the emerging famine. Vulnerable populations were assessed although evidence from the 4-Week Plans of Action suggests that targeting was still generalised and that little data about the overall presentation of the famine was available.

Bahr el Ghazal was accepted as the epicentre of the famine, but vulnerability did not reach its peak until August, although there is still some uncertainty about the date of the maximum need for feeding. Data from MSF Belgium show that their supplementary feeding for children

peaked between the last week of July and the middle of August, while therapeutic feeding, in all locations across Bahr el Ghazal, peaked in mid October - the very period that WFP airdrops to south Sudan reached 15,000 Mt. Including other supply channels, deliveries to southern Sudan reached 17,000 Mt in that month.

The DEC decision in mid May to make an appeal, allowed agencies immediately to upgrade their programmes or, if they were not already operational, to start field activities. Much of the initial activity was in famine prevention, attempting to restore agricultural capacity, providing fishing gear to bolster hungry season food strategies and, where necessary, to provide rations to address the food gap. Internally Displaced Persons (IDPs) needed a general ration coupled with shelter provision and household utensils. Much of the member agency planning focused on preventing an escalation of famine coupled with logistical preparation for a major airlift as the rains began and southern Sudan became non-operational except by airdrop. The rains did not, however, come as expected.

7.2 **Evidence of the Delayed Rains in 1998**

ETC (UK) commissioned a report, from the Division of Geography and Environmental Management in Northumbria University, on a comparison of the 1997 and 1998 seasons. The purpose of the report was to explore the validity of a famine prevention strategy by DEC member agencies in the delayed onset of rains in southern Sudan. This report, entitled "Sudanese Vegetation Response to Rainfall: A Comparative Analysis of Normalised Difference Vegetation Index (NDVI) Data for 1997 and 1998" concluded:

> It is clear from the NDVI analysis that the pattern for vegetation for 1998 in Sudan exhibited from the end of March an extended period of dryness.
>
> The amount of dense vegetation cover in 1998 did not become significant until the beginning of August, whereas in 1997 dense vegetation had developed by the middle of May.

This indicated a delay of more than three months in the rain, which would result in a three-month delay in the harvest, prolonging the hungry period, but allowing the development of a famine prevention strategy. Although this strategy broadly worked across all of southern

Sudan, it was not sufficiently targeted, especially by WFP, on northern Bahr el Ghazal. Thus by August, although the delivery of total WFP general rations peaked across southern Sudan, the peak in Bahr el Ghazal was actually November.

> In 1998, the area of most vegetation classes remained fairly stable after the September maximum until the middle of November. 1997 exhibited a more prolonged but inconsistent decline in most vegetation groups after the August maximum.

When the rains came they came late and with such severity that flooding destroyed crops and restricted transport to airdrops. By August, however, member agencies, either using DEC or other funds, were actively involved in famine relief, not in famine prevention.

7.3 **Expenditure by DEC Agencies**

Table 6 shows expenditure on beneficiary and management targeted activities supporting delivery in the field. What is striking about the table is the limited expenditure on direct famine relief compared with the significant levels of expenditure on broader welfare programmes, famine prevention initiatives and the purchase of general rations. Transport and infrastructure activities are the single largest item of DEC expenditure.

Table 6 Final Expenditure

Category	Heading	£	%
Beneficiary Activities	Welfare	464,644	9.50
	Prevention	668,742	13.67
	General Rations	671,860	13.74
	Famine Relief	520,523	10.64
	Other	520,187	10.63
Management Activities	Transport & Infrastructure	1,804,752	36.89
	Management	220,562	4.51
	Other	20,240	0.41
	Total	4,891,509	

Source: DEC Agencies' Seventh-Month Final Expenditure Reports, analysed by ETC (UK)

8.0 Evaluation Findings

In Sudan, the role of the DEC agencies and other INGOs, is significantly different from the roles that they occupy in parallel emergencies in Kenya, Somalia and Ethiopia. In these cases NGOs and the implementing partners of the multilateral channel (UNHCR, WFP) take responsibility for the general food rations as well as supplementary and therapeutic feeding. In Sudan, with OLS agreement, responsibility for the general ration is with the GoS (OLS northern sector) or SRRA/RASS (OLS southern sector). In this legally binding arrangement it is assumed that GoS or SRRA/RASS will take on the equivalent of local administrative responsibilities. The Sudan arrangement restricts the humanitarian space in which INGOs can operate.

8.1 **Restrictions on Humanitarian Space**

The restriction of humanitarian space, addressed by the creation of OLS and the roles allotted to GoS, SRRA/RASS and the UN family, limits the range of humanitarian services offered by INGOs, a limitation added to by the need to obtain Government permission to fly, permissions which are frequently withheld. This becomes a limitation on services in the nutrition sector (supplementary and therapeutic feeding) and on the essential supplies of non-food materials.

WFP is responsible for providing the general food ration, which means that no NGOs are involved when local military and civilian authorities seize the ration from beneficiaries (see below §8.9.4 for a fuller account of this phenomenon). But this lack of control makes decisions to discharge individuals from specialized feeding programmes, run by INGOs or their local partners, when access to general ration and, therefore, full recovery, cannot be guaranteed, extremely problematic. Given the reality of Sudan, however, it is unlikely that INGOs have the logistical, personnel or material capacity to take management responsibility for the effective and efficient delivery of general food rations.

Of course, this limited humanitarian space, and range of service has direct consequences for beneficiaries. The orientation of a particular INGO allocated to an area affects the services available there. Rarely is the full range of services, e.g. food (including specialised feeding)

non-food goods, health, water, veterinary services and agricultural rehabilitation (seeds, tools, ploughs) available. Geographic coverage is very variable.

8.2 Transport and Logistical Problems

All DEC agencies experienced transport and logistical difficulties. The WFP commanded the largest part of the OLS (southern sector) budget, although OLS leadership rested with UNICEF. WFP was unprepared for the severity and extent of the crisis. By the end of 1998, it had performed the largest airdrop in its history, doubling its capacity, which rose to some 13,000 Mt per month between May and August. DEC agency members of OLS southern sector continued to provide substantial human resources to OLS management. Oxfam provided general management, SCF provided analytical capacity for WFP's food economy studies, CARE provided logistical capacity, especially at Lokichoggio, and World Vision increasingly provided storage management for strategic general rations in southern Sudan. Concern operated as a member of an informal peer group to help steer WFP operations and provided food monitors. There was, however, little other monitoring capacity available.

In the northern OLS and the Sudan Council of Churches routing, channels were subject to the wishes of the GoS. WFP appeared not to have particular difficulty with the food pipeline to Wau but was seriously stretched when populations started to return to the town. In Juba, major disagreements between Oxfam and WFP over population figures led to delays in responding to the crisis.

8.3 The Need to Strengthen OLS

Individually and collectively there was a willingness to strengthen OLS capacity, which DEC member agencies in Nairobi indicated had been run down by the donor community.

The donor community position was that:

i) peace negotiations were paramount;
ii) OLS had not responded to the 1996 OLS evaluation recommendations;
iii) the Sudan Consolidated Appeal (1998) exaggerated need (based on an inadequate statistical base) and was untargeted.

Both UNICEF, as OLS co-ordinator, and WFP reject parts (ii) and (iii) and argue that the essential problem is underfunding by the donor agencies.

INGO criticism of OLS also focuses on UNICEF's relatively low level of technical expertise and experience in co-ordinating emergency response. UNICEF's lack of capacity to conduct assessments, and to monitor and evaluate INGO programmes, leaves INGOs in a vacuum. OLS provides security for INGOs, access to OLS flights and meetings but, beyond that, OLS performance for INGOs is governed more by individual contact between actors rather than by structural agreements. Yet, despite these criticisms, it is difficult to envisage an alternative structure other than a loose consortium of INGOs. This would, however, have to deal with two critical, and interlinked, areas: the issue of neutrality and relationships with local partners in OLS. The neutrality issue is especially difficult with reference to the GoS and SRRA. Where SPLM/A is the authority, there is a move towards local administrations taking over power from SRRA. This further complicates local relationships.

Some INGOs in OLS therefore distance themselves, stressing the need for impartiality. Others pursue constructive engagement to reinforce humanitarian capacity – including INGOs beyond the OLS framework. Other INGOs are simply uncertain. None of this variety in response helps co-ordination. In the northern sector, INGOs are uncertain whether the room for manoeuvre allows effective humanitarian assistance. The issue of local partnerships in OLS also reflects similar tensions. Again, particularly with reference to SRRA, the lack of formal recognition means that it is difficult to build sufficient managerial and technical capacity to establish effective early warning systems, monitoring and evaluation control. Training for SRRA staff, which implies staff selection beyond traditional structures, is funded by non-OLS humanitarian assistance agencies who are members of the DEC.

It is not surprising, in this context, that the 1999 Assessment by OLS blames donors for a tardy response and regrets the lack of involvement by humanitarian agencies. Nor is it surprising that it emphasises UNICEF's failure in its co-ordinating role, although SRRA concedes that the SRRA itself was deficient in co-ordination on the ground. Independent evaluations of donor performance and that of OLS itself are awaited.

What emerges from this analysis of OLS is that, for a variety of reasons, there is no significant alternative for the delivery of most humanitarian assistance. What also emerges is that, given the paucity of humanitarian assistance agencies under OLS, British DEC member agencies, either directly or through their international linkages, play a significant role in the OLS effort.

8.4 Non-OLS Interventions

Concern, whilst providing management support for OLS members, was outside both OLS and the church consortium.

8.5 Activities in South Sudan

In Lokichoggio, discussions focused on logistics and transport. DEC agencies involved in building logistical infrastructure in Kenya were strongly supported in the discussions because their work enhanced the ability of OLS to function in Sudan. Smaller DEC member agencies commented on the lack of storage capacity for non-food items. ICRC was criticised for not allowing other DEC member agencies access to its flights but, in turn, argued that its neutrality must be safeguarded.

In southern Sudan, the mission observed food and non-food distributors, but were not able to observe seed distribution. The quality of the commodities was high and distribution was monitored by the agencies. There was significant variation in the quality of the set up of sites, between and within DEC agencies. Therapeutic and supplementary feeding centres and associated health facilities were inspected, though they were now being converted to other uses.

8.6 Activities in Government of Sudan Controlled Areas

DEC agencies, despite severe practical difficulties, were effective in responding to the crisis in areas controlled by the Government of Sudan. Curfews, the restriction of movement, long delays in obtaining visas and travel permits, particularly for expatriates, all hampered quick responses. Agencies working with predominately Sudanese staff had more leverage. The UNHCU was self-critical of its role in not having a mandate to co-ordinate activities. It also

felt that the lack of co-ordination between the northern and southern OLS sectors led to poor information on population movements, in particular following the major displacement from Wau in January 1998. Both UNICEF and WFP lacked capacity in the northern sector. Initial co-ordination between DEC member agencies appeared good but, with the large influx of INGOs, this deteriorated.

8.7 **Advocacy**

All the DEC agencies are actively advocating a peaceful solution to the present conflict in Sudan. In October, 1998, a number of DEC agencies presented a briefing to the Security Council highlighting issues concerning the war. This was an initiative taken by the agencies themselves and was not within the framework of the DEC.

Several DEC agencies led programmes on human rights issues and violations, such as slavery, are an extremely sensitive issue. DEC agencies are cautious in their approach to abuses because they cannot afford to upset the Government of Sudan

Peace is being negotiated between hitherto hostile ethnic groups in southern Sudan.

An understanding of the vulnerability of livelihood systems in Sudan is being developed.

8.8 **Performance Standards**

All DEC members subscribe to the Red Cross/NGO Code of Conduct, which specifies neutrality and impartiality in delivery. Several, but not all, agencies delivered programmes in both GoS controlled and non-GoS controlled areas. Impartiality infers delivering relief in accord with need, so that those in greatest need were prioritised. Normally accepted standards for provision of food, for example, prioritise under fives who are demonstrably malnourished, pregnant and nursing women. These standards were observed by DEC agencies, some of which also provided supplementary and intensive feeding for malnourished adults. The mission believes that the DEC agencies were impartial, bearing in mind their mandates. Help the Aged, for example, aids the aged, but uses transparent mechanisms to prioritise those in greatest need. Other agencies behaved in a comparable manner. All DEC agencies working through OLS and in southern Sudan, signed the Ground Rules Agreement (GRA), imposing

rights and responsibilities on agencies and *de facto* administrations. In line with its established interpretation of neutrality, ICRC is not a signatory of the GRA.

8.9 **Nutrition**

The key issues that arise from the field relate largely to nutrition. In Sudan, DEC agencies were in an unusual position generated by the OLS structure. GoS, SRRA and NRRA were the direct implementing partners of WFP for general ration distribution; local government structures for famine prevention and relief are usual for response to natural disaster in stable states but unusual in chronic complex emergencies. As DEC agencies had little control over the general food ration, there was a certain reluctance by some agencies to be involved in feeding programmes.

8.9.1 *General Ration*

As the crisis escalated in May 1998, insufficient general ration was available; WFP produced food from other operations, including Kenya, leading to a shortfall in those programmes. Initially, general ration was calculated on 1,900 kcal per person per day rather than WHO recommended rates of 2,100 kcal per person per day. The food basket (carbohydrates, protein, fats, and vitamins/minerals) was not always delivered and there was reliance on single item carbohydrate delivery. UNICEF faced similar problems in sourcing and delivery of supplementary and therapeutic food leading some INGOs to source their own. Donor community criticism focused on WFP's failure to target food delivery to northern Bahr el Ghazal: WFP and INGOs reply that a general distribution was necessary to prevent global famine.

8.9.2 *Nutritional Surveys*

Nutritional surveys for calculating requirements for general rations were very weak, patchy in coverage and used differing sampling frames and technical indicators. Promotion of a food economy model of southern Sudan, and an over-estimation of the importance of famine foods, failed to capture the evolution of the famine. While the food economy work is important to capture the system in steady state equilibrium, it is inapplicable to complex emergencies where the very function of war is to destroy that local economy. Reliance on

individual presentation of under 5s to define famine conditions produced a situation where other data, such as socio-medical evidence of a rise in TB, was not used to map the evolution of the crisis.

8.9.3 *Supplementary and Therapeutic Feeding*

In supplementary and therapeutic feeding programmes, some agencies visited in the field had modified the normal standards to respond to local conditions. This included standards of individual treatment and standards of delivery. For example, in several therapeutic feeding programmes, children were present for 12 rather than 24 hours and, for security reasons, their mothers were provided with food for feeding them at night. One therapeutic feeding centre exceeded the recommended norm of 100 persons. Problems also arose when individuals, usually children, received supplementary feeding, but their families were refused access to general rations from the supplementary feeding stations – a refusal that they found incomprehensible and unacceptable. The numbers of individual children without families who presented themselves to supplementary and therapeutic centres led to problems about the responsibility of the agencies for orphans after successful treatment. The policy in the Oxfam supplementary and therapeutic feeding centre at Agangrial had been to attempt to locate the child's family or to find foster parents in the community. At the time of the field visit, only one unaccompanied child remained in the Agangrial feeding centre. Above all, there was a concern that nutritional targeting of the under 5s left, adults, except lactating and pregnant women, to face increased morbidity and mortality despite evidence in some areas of an over-provision of feeding centres for children.

8.9.4 *Redistribution within Communities*

Donors, UN agencies and some INGOs had difficulty in accepting a redistribution of the general ration at community level. Food was confiscated by local chiefs, after distribution, to pay *tayeen*, a community tax levied by the authorities including the military, what remained was then redistributed but not necessarily to those in greatest need. This may be because the community did not accept or distrusted the IDPs who came from Wau and other GoS areas. This dilution of general ration sometimes resulted in the most needy not receiving an adequate ration. The contrast between the local cultural practices, where kinship networks reinforce social cohesion at the expense of the individual weak member of the community, is

an issue that, with both general ration and supplementary feeding, challenges humanitarian assistance focused on individual curative care of the weakest individual.

8.9.5 *Other Provisions in Feeding Centres*

The provision of parallel water, sanitation and health care facilities for feeding centres, the responsibility of UNICEF, was problematic although UNICEF was praised for its measles programme. In general, epidemics were avoided with the exception of an outbreak of shigella dysentery in August.

Non-food items were generally well received although some questions were raised about the quality of seed from Kenya and the appropriateness of some of the Kenyan tools. Mosquito nets were particularly appreciated.

8.10 **Perceptions of the DEC**

The DEC itself had little recognition in the field except as a funding source. This was true even of some people working for DEC agencies. Many agency employees commended the DEC for the fungibility, timeliness and flexibility of its funding. This comment seemed to relate particularly to the allocation mechanism. In a small number of cases, the six-month rule (which decrees that funds must be spent within that period) was mentioned by agency workers as somewhat irksome. The mission agreed with the more widely held view that the allocation mechanism is effective and efficient. It was strongly indicated by agency workers, and the mission agrees, that, in an unfolding disaster like Sudan, where famine peaked four months after the appeal, greater flexibility rather than rigid initial allocation of funds to agencies was appropriate. It was important to allow DEC agencies to respond to the unfolding disaster.

9.0 Efficiency

Table 7 contains consolidated accounts for all DEC expenditure. Of note are the following points:

- The relatively low overall cost of transport, even though two agencies were involved. Transport costs for the Sudan airlift are high and, had they been met by the agencies, would have absorbed 80 per cent of the budget. However the figures reflect the fact that WFP provided free transport for OLS agencies. Transport charges were incurred by the independent agencies; that these are also low is explained by the relatively lighter weights of the food and non-food items that they were moving and which were not included in the general ration.
- Labour and management costs for the DEC agencies have been kept very low.
- The total exceeds released appeal funds indicating other sources for largely DEC funded projects.

Table 7 Total DEC Expenditure

Beneficiary Activities	
A. Beneficiary Activities (1)	UK £ 2,845,954
B. Management Activities (2)	UK £ 2,045,554
Support Costs	
C. Labour	UK£ 758,849
D. Subsistence allowances	UK £ 900,883
E. Other (unspecified budget lines)	UK £ 136,789
Agency Costs	
F. Management Support	UK £ 115,420
Contingency Costs	
G. Contingency	UK £ 41,265
TOTAL	UK £ 6,844,716

(1) Such as: provision of survival kits; fishing equipment; seeds and tools; general rations for Nuba Mountains; supplementary and therapeutic feeding.

(2) Such as: infrastructure repair and improvement; support for analytical and logistical capacities.

10.0 Effectiveness

Goods and services delivered by DEC agencies, with significant experience of Sudan crises, were appropriate in the light of local custom. Special mention can be made of the distribution of fishing gear, support for veterinary services and seed selection which demonstrated a sound knowledge of the local food economy. The tensions generated by the redistribution of

food rations were beyond the control of member agencies. The limited access for families to food from supplementary feeding stations, in which their children were receiving treatment, created tension. Finally, WFP's continued delivery of large quantities of food through November might have undermined the rate of return to the traditional food economy.

11.0 Lessons Learnt

The important lessons to be learnt are that:

11.1 **DEC Performance**

DEC agencies are mature in the handling of goods and services that address famine prevention and famine relief activities in complex emergencies.

11.2 **Need for Collective DEC Responses**

DEC agencies should agree on the nature of a crisis in complex emergencies, agree on data indicating its size and present a unified case to the media. As DEC appeals require close co-operation with the media, it is necessary at times, however contradictory this may seem to individual agency analysis, to maintain a collective DEC position.

11.3 **Diversity in Response**

DEC agencies were distinctly entrepreneurial in the use of DEC funds maximising the delivery of goods and services through a variety of routes.

11.4 **Supplementary and Therapeutic Feeding**

Some DEC agencies, in the delivery of supplementary and therapeutic feeding, were over or underwhelmed depending on their location and the range of goods and services they were able to offer. In some cases, recommended standards or practices were not followed largely because of circumstances beyond agency control. In such circumstances, it is important to record the process of decision making to justify change in standards or practice.

11.5 **Management Activities**

The DEC should try to make explicit the existing implicit management activities in complex emergencies, particularly of leading DEC agencies. This management capacity is a critical resource especially in the field.

11.6 **The DEC as an Institution**

The DEC itself requires a role beyond the appeal, including the provision of information summaries of DEC activities and monitoring on-going efforts. Without such a role, the DEC itself is likely to come under greater media scrutiny.

11.7 **Evaluation of the DEC**

Future evaluations should focus on the effectiveness and efficiency of DEC funded goods and services provided by member agencies. Although this requires looking at the performance of individual agencies. DEC evaluations should not be of the agencies *per se*.

12.0 Evaluation Conclusions

12.1 **Size of the Emergency**

It is difficult to estimate the size of the humanitarian response in Sudan last year. Current figures for OLS suggest a figure of USD 340 million should be used. SRRA estimated that INGOs in the southern sector brought in another USD 300 million. It is likely that an additional USD 300 million was spent in the northern sector, not least through Islamic humanitarian agencies. Almost USD 1 billion went into Sudan last year for a range of humanitarian programmes. The DEC monies represented about 1 per cent of the investment. This investment addressed the needs of 2.2 million people displaced by the war in southern Sudan. Estimates suggest that between 60,000 and 100,000 people died due to the emergency, who would not have died in more normal circumstances.

12.2 **Differences in Knowledge and Opinion about the Emergency**

In a messy situation, where there were differences of knowledge and opinion about the crisis and uncertainty, for example, about access among DEC members, international media helped increase public awareness of a Sudan crisis. That crisis was, in no small way, driven by lack of response to the 1997 UN Consolidated Appeal and significantly exacerbated by the increase in IDPs from continuing warfare in early 1998. Unsure of the actual situation, following the successful DEC Appeal, a range of programmes was put in place that largely emphasised famine prevention by DEC agencies. As the famine evolved, more attention was paid to famine relief.

Part of that messy situation was the lack of agreed statistics, the contradictory scale of data and the lack of accurate measurement of an emerging famine. Data issues are important, not least because they allow accurate targeting of beneficiaries. Without such accurate targeting data, interventions are generally supply side driven. Such supply side driven analysis is increasingly rejected by donor agencies that continue to provide most of the money for humanitarian assistance. In a chronic complex war situation, there is need to provide on-going assessments to capture any movement from chronic to acute need. This is especially true in the context of a DEC appeal where, as the appeal is linked to media access, it is problematic if the media are providing coverage of an emergency that some DEC agencies deny exists.

12.3 **Project Planning Capacity**

The 48-Hour and 4-Week Plans of Action, together with the OSC commentary on those plans, show a strong project planning capacity. This quality is not reflected to the same degree in final reporting by all member agencies, nor do the submitted accounts easily correlate with the six-month descriptors of activities by member agencies. It is also difficult to trace changes in activity between the 4-Week Plans of Action and delivery on the ground in the current reporting format. Most importantly there is no attempt to summarise individual project activities in an overall planning frame, based on the 4-Week Plans of Action, nor to summarise the overall impact of the activities from the seventh-month final reports. As a consequence, the evaluation team has to attempt this itself otherwise the evaluation becomes a series of anecdotal remarks about a wide range of activities produced by a wide range of

member agencies across a wide range of professional inputs in a very large area. This would seem to indicate that a level of rethinking is needed about the DEC reportage and management of that reportage in the disaster appeal and response process.

12.4 **Differing Interpretations of the Emergency**

The DEC, however, has to address the important issue of assembling adequate data that is agreed by member agencies before launching an appeal. Inability to do so leaves the DEC, as an institution, vulnerable to attack from both the media and from other authorities such as the UK Government. It does not appear that the conflict between agencies within the DEC, over the initial call for an appeal, substantially reduced the level of public response to the DEC appeal in this instance.

The attack on the DEC process by the Secretary of State for International Development was poorly expressed. The broad issue that she wished to raise was one of the appropriateness of humanitarian assistance in a situation where the warring parties sought either to displace responsibility for that assistance to the international community (SPLA) or where the warring parties would not allow access to the affected population (GoS).

Throughout the evaluation process, the evaluation team have been conscious that the "back loaded" model chosen for the reorganised DEC by agencies restricts DEC management to the appeal process. This restriction to the appeal process makes the DEC itself vulnerable to criticism after an appeal has been made. There is relatively little information available at the DEC, and therefore from the DEC, to indicate how appeal monies are to be spent responding to the crisis. Some co-ordination of information is necessary so that the DEC can indicate the broad programme of investment that will be undertaken with the use of funds raised from the British public.

12.5 **DEC Agency Perception of the DEC**

The evaluation team has also been struck by the conflicting expectations of the DEC itself on the part of its agencies. Some agencies insist that the DEC is simply an umbrella fund-raising organisation, while others wish to move the DEC towards a more collective model of programme intervention. This is an issue that will have to be continually readdressed as the

DEC itself, with increasing success in making appeals, takes on an institutional life of its own. The evaluation team has also noted the frequency with which the DEC Secretariat is accused of lack of professional emergency experience by DEC agencies while, at the same time, DEC agencies refused to fund such capacity. Again, as the DEC itself takes on an institutional life of its own by, for example, releasing evaluation reports, agencies who still seek to limit the capacity of the DEC Secretariat to the appeal process, will find themselves under public scrutiny for running a heavily controlled organisation where the agencies themselves are not really open to scrutiny.

The problem with the umbrella model of the DEC is that, while it celebrates the undoubted unique quality and achievement of the individual agencies, that very richness of experience can lead to conflict between agencies over appropriate responses. The umbrella structure also provides a level of management input from the agencies through the Executive Committee and the Operations and Media Sub Committees, which can appear to locate the source of the problem with the DEC itself rather than between the agencies of the DEC.

12.6 **DEC Operations Sub-Committee**

The evaluation team has been impressed by the increasing professionalism of the Operations Sub Committee although, again, this umbrella form of management and control of the post-appeal process is open to levels of conflict. In Sudan, the outcome of the agency proposals, with critical comments, where necessary, from OSC was a broad and appropriate range of welfare programmes, famine prevention interventions, livelihood system rehabilitation and levels of famine relief. On the evidence that they have seen it is the opinion of the evaluation team that comments by the OSC influenced the activities of some agencies. In future operations, such a balanced programme might not emerge. It is in the opinion of the evaluation team, appropriate for OSC, which has an overview of the proposed interventions, to be able to advise on and give a steer to achieve an appropriate overall programme. The late arrivals of the rain allowed the famine prevention strategy in particular localities to operate and probably helped prevent increasing morbidity and mortality among at least an additional 250,000. The emphasis on non-food items as well as food was necessary as the famine prevention strategy was generally contextualised within the framework of the household economy.

12.7 Support to OLS

On the ground, the larger DEC agencies provided substantial management input into those parts of the OLS structure where management capacity was significantly under-resourced. However, the very structure of OLS itself gave rise to problems, where, because of the initial low resourcing of WFP there was inadequate general ration and, even when it existed, it was beyond the control of DEC agencies. On the ground, the representatives of the agencies were extremely explicit in their self-critique of several issues concerning nutrition, including the lowering of standards to match the availability of food ration and the lack of linkage between the supplementary and therapeutic feeding programmes and general ration provision. Some DEC agencies were strongly critical of their Sudanese partners responsible for the provision of general ration. All parties on the ground agreed, particularly in the southern sector, that there was inadequate technical and managerial capacity available from Sudanese counterparts.

12.8 Value of DEC Funds

On the ground there was praise from staff of the agencies, and their partners, over the timeliness, fungibility and flexibility of DEC monies which fitted into existing programmes. There was concern that the formula for disbursing funds consolidated the leading positions of the larger DEC agencies and that more appeals would lead to even further consolidation. There was also concern that the rigidity of the formula which allocated monies immediately after the appeal did not allow scope for reassessment in the light of emerging need in an evolving famine. However, staff of the agencies pointed out that the rapidity of disbursement allowed a rapid build-up of experienced staff who were on the ground when the famine peaked in August 1998.

12.9 Specific Terms of Reference

Specifically, in response to the Terms of Reference, the ETC evaluation mission finds that:

12.9.1 The DEC planning process is strong on project activity but provides little sense of an overall policy or programme framework for intervention. As such, it can be interpreted as ad hoc investment around existing programmes. As noted in 12.6, there

is an opportunity for the OSC to strengthen the cohesion of the DEC interventions because it is in the unique position of having an overview of the whole programme. Clearly the more detailed planning must be near the field level and clearly also it is not suggested that the OSC should instruct member agencies on the part they should take. The evaluators consider that the OSC could inform and guide participating agencies, collecting and distributing information on the scope for interventions both at the start of and during emergencies. This can strengthen and broaden existing working relations at field level, which are strong among agencies with a long presence, but are weaker for newer arrivals. Stronger guidance by the OSC would facilitate an assessment of the value of the overall investment. In the context of Sudan, it is difficult to provide an analysis of the process and content of each agency's planning assessment because the assessments themselves are generalised and because they cover such a wide range of crisis conditions over a large area. If such comparison were to be done in the future, it should be a comparison of similar activities by agencies not the assessment process.

The degree of co-ordination was significantly higher in the field than at headquarters. Quite simply an implicit model of co-operation exists in the field. At headquarters, there is a stronger sense of competition, necessary to some degree as individual member agencies attempt to generate funds. In the Sudan case, on the ground, there was a significant degree of co-ordination within OLS of the larger DEC agencies and a willingness of the larger agencies to provide access for smaller DEC agencies. The larger DEC agencies missed an opportunity for turning their implicit roles into an explicit management role. It exists not just with reference to the disaster process itself but also to the advocacy process where they provide important leverage on the warring partners without maximising outcome.

Where models of good practice in planning and reporting existed, it was because DEC agencies used a modified form of logical planning frameworks (LPF). Although such project planning does not capture policy and programme issues, it does capture the link between expenditure and output of project activities. The evaluation team thinks that LPFs could usefully be adopted by all agencies particularly for finally reporting. Final reporting must also indicate why decisions were made between intended

investment and actual investment including detailing the risks involved in changing investment programmes.

12.9.2 Assessments of beneficiaries were very broad, reflecting the lack of data. This is to be expected in war conditions where there is significant displacement of population.

For agencies involved in supplementary and therapeutic feeding there was little sharing of standardised criteria for measurement of malnutrition. The focus of malnutrition programmes, which was largely for children, gave less attention to adolescents and adults who are significantly at risk in war-related famine. On the ground, project staff of member agencies voiced serious concern over the inability to implement feeding programmes according to accepted professional standards and voiced concern that there was no assessment procedure that could hold all humanitarian assistance programmes to account. There was strong support for the SPHERE project, which many staff of member agencies thought might address the problems of standards but still left undetermined the issue of accountability.

Because of the continuing movement of population it was not possible to generate a sample of potential beneficiaries who might have been overlooked by DEC agencies. As interventions are place-specific and the population is not place-permanent, this is not surprising.

In the parallel study on beneficiaries it was noted that gender awareness in humanitarian assistance programmes is relatively low. The response of DEC member agency staff to beneficiary targeting was extremely practical, eg eyeballing the need for intervention was clearly the strongest targeting tool. Some DEC agencies had structural arrangements for targeting through partnerships with local structures; this provided for rapid intervention but was limited to the partnership structure. Several agencies conducted vulnerability workshops with local communities although this tended to be after the 4-Week Plans of Action. It would be preferable to hold such workshops before the 4-week Plan of Action so as to inform the preparation of these plans. If however, contingent circumstances occur after the 4-week Plan of Action has been formulated, it is appropriate to hold such workshops at a later time. Non-food items were particularly open to generalised assessment.

12.9.3 An effective division of labour existed from Nairobi/Khartoum to the field. Agency projects were appropriate in that they directly targeted displaced people, famine prevention and, in some cases, famine relief. There was no formal mechanism for INGO co-ordination except OLS, the church consortium and ICRC.

In the northern sector, co-ordination was facilitated through two forums the 'Emergency Response Team' in Khartoum and the 'Emergency Working Group' in Wau. The UN, INGOs and ICRC were involved in this process linking in with government authorities.

12.9.4 Most DEC agencies stayed close to the 4-Week Plans of Action. There was some change in partnerships, not adequately documented, and some under-performance because the number of beneficiaries were over-estimated or activities were not necessary. The evaluation team estimates that over 98 per cent of all planned activities were implemented. The activities, however, could not be described as a co-ordinated, planned programme of crisis intervention. The location of agency activity was central to its success but choice of location, especially for small member agencies, was not fundamentally under their own control.

12.9.5 While there is significant co-ordination on the ground it varies by place. In Nairobi, management co-ordination existed but in an implicit not an explicit manner. This was helped by the fact that agency staff had in many cases previously worked for the agencies with which they were co-ordinating activities. In Lokichoggio co-ordination was centred on practical issues of storage and flight access for personnel and goods – an informal network of shared opportunity. In southern Sudan, staff, rather than agency, tended to dovetail programmes to ensure complementarity of delivery to place-based programmes. The continuous interaction between personnel and agencies on a daily basis was clearly evident in the field visits. The DEC does not, as such, have a co-ordination function, in Nairobi, Khartoum and Wau though ad hoc working relationships exist between some DEC agencies.

12.9.6 Access to aircraft, an issue of availability and cost, was the dominant constraint in logistics. Floods made road transport impossible over extensive areas through much

of the acute famine period. Political constraints, with new cease-fire agreements, allowed flights as requested but, especially in the northern sector, administrative constraints restricted travel movement.

DEC monies were used effectively, First, the targeting of famine prevention – reduced morbidity and mortality risk to at least 250,000 people. Second, the timely disbursement of that money allowed member agencies to put experienced staff in place who were available as famine spread more widely in northern Bahr el Ghazal; famine escalated but this intervention was not "cold start". Third, by charging other donors for the substantial transport costs, especially in OLS, and by minimising their own labour and agency costs, DEC agencies maximised the expenditure of funds generated from the British public to focus directly on the provision of supplies and services to beneficiaries.

12.9.7 All beneficiaries and partners responded positively to the use of DEC monies by member agencies but that is not surprising. What did receive extensive comment was the cultural clash between the social targeting of communities wanted by the beneficiaries and the individual targeting, especially in famine relief activities, of western intervention. The absence or late inclusions of adults and adolescents from targeted feeding programmes was raised. Gender and age were not a dominant issue of beneficiaries in DEC agencies.

Some activities impressed the mission as being particularly appropriate to the circumstances in Sudan at the time of the field visits. Their appropriateness in future emergencies would depend on the local circumstances at the particular phase of the emergency and the capacities of the agencies participating. Support to OLS was particularly necessary in early to mid 1998. This was because the UN agencies, particularly WFP, were threatened by the sudden intensification of need. The larger DEC agencies (details are provided in Annex 7) gave much needed support to the co-ordinating agencies. This support helped considerably in the analysis of the situation and in logistics. Technical personnel were seconded and transport and storage infrastructures were improved using DEC funds.

Second, the immediate availability of funds and the flexibility allowed through the back-loaded evaluation and the DEC planning framework allowed a response to the changing nature of the emergency. Some examples are: the response to the developing flood in Bor County, the decision to provide supplementary and intensive feeding for malnourished adults, the support for displaced people and former refugees in Tambura. In these cases the appropriateness was in the ability to respond quickly and to change plans. This is not to suggest that the activities undertaken were not in themselves well founded.

Third, the mission was impressed by the careful co-ordination of activities, where, for example, the same agency or different DEC agencies provided water supply and improved health facilities related to feeding centres. In some cases the water supply system was designed so that some water could be available for the general community and that even the spilled water could be used for irrigation. The speed of provision of the production line boreholes seen by the mission is to be commended in emergencies. Improvements in water supply, like improvements in support to health are valuable in emergencies, particularly where such facilities may be targeted and where there are big increases in demand locally, with the threat of disease. The lack of severe outbreaks of disease suggests that such programmes were effective. Both water and health service provision are developmental even if carried on in emergencies. Though the express intention of DEC investment was to provide help in emergencies it is a bonus that they provide a foundation for development.

Fourth, the information on agency activities gives examples of positive symbiotic (mutually beneficial) relations between larger agencies with a long-term presence and smaller newcomer agencies, also (as it happens) members of DEC. A facility or activity started by a larger agency is handed over to a smaller one, while the second agency benefits from various forms of help in establishing a presence. These forms of help are not unusual among NGOs but it is appropriate to see this form of relationship between DEC agencies, which are likely to work together in many future emergencies as a direction that DEC might seek to encourage.

12.9.8 Value-added of DEC monies to member agencies and their partners was:

- timeliness which allowed an initial humanitarian presence by the agencies;
- fungibility which allowed open selection of project activities in conjunction with partners;
- flexibility which allowed change in planned expenditures before, and after, the 4-Week Plans of Action.
- rapidity of disbursement which allowed famine prevention activities to be undertaken.

The evaluation team cannot realistically speculate on possible consequences if DEC funds, had not been available, not least because of the wide range of other monies available to DEC agencies and the wide range of humanitarian actions beyond the DEC agencies. The evaluation team estimated that the intervention directly lowered the morbidity and mortality risk of 250,000 people.

12.9.9 As famine escalated, and war continued, little assistance was long-term. Long-term contexts are appropriate to natural hazard response not complex emergencies.

12.9.10 DEC membership does not provide rules or guidelines for advocacy. While the DEC appeal specifically mentioned the importance of the peace process, co-ordination between agencies on advocacy was an *ad hoc* process. Peace advocacy was driven by the larger DEC member agencies but outside of the DEC framework.

The very process of the DEC appeal itself, and the reinforced capacity of member agencies on the ground, contributed to a sense of advocacy about the need for humanitarian assistance in Sudan although this was largely media driven.

By action, some DEC agencies targeted populations omitted from humanitarian agreement (Nuba Mountains), local peace initiatives on human rights issues. The locus of advocacy action was not, however, DEC focused.

In conclusion, the evaluation team finds the DEC, and its member agencies, professional and transparent. It finds the use of DEC monies to be effective, not least because it maximised the use of funds raised from the British public to ensure rapid delivery of humanitarian supplies and services to Sudan.

Annex 1 DEC Reorganisation

1. "The objective of the DEC is to support UK voluntary sector NGOs in their task of alleviating acute human suffering amongst those least able to withstand the effects of a major overseas disaster, by:

   - Providing an accredited national forum for joint fundraising in order to maximise the funds raised and facilitate immediate commitment from participating agencies;

   - Creating a focal point for the response of the public, the broadcasters and others to such disasters;

   - Facilitating agency co-ordination and communications;

   - Ensuring funds are used in an effective, timely and fully accountable way." (DEC Memorandum and Articles of Association).

2. Each member provides an annual account of its expenditure overseas from UK funding sources. This figure, called an Indicator of Capacity, is a rolling three year figure, and is used to estimate how much each member participating in an appeal should receive from pooled funds.

3. Six Chief Executives are elected to the Executive Committee, which is responsible for the management of the DEC and is chaired by an independent person from outside the sector (currently Sir Paul Fox). The DEC also has a Council of independent people, drawn from outside the agencies, whose role is both advisory and supervisory.

4. The DEC Secretariat is responsible for administration and for mounting appeals. Appeals are launched with the acquiescence and support of a network of institutional supports across the media sector, banking, telecommunications and elsewhere.

5. DEC appeals have always had certain characteristics which have been confirmed and strengthened by the recent review.

   Firstly, there is recognition that DEC appeals must not be launched lightly because they involve a network of supporters that expects agency responses to be genuinely humanitarian and not prompted by a desire to bolster the bottom line.

Secondly, the agencies have to be clear about issues such as the extent and nature of what is needed and for how many people, and must take account of a range of political and socio-economic factors such as access, safety of staff, impartiality when dealing with warring factions, etc, anything that could interfere with the effective delivery of aid.

Thirdly, agencies have to be fully accountable for funds received from an appeal. Each agency is required to prepare a plan of action within 48 hours of the decision to launch an appeal and, then detail it four weeks after the plan is launched. The plans become the reference point for an independent published evaluation commissioned by the DEC some seven months after the appeal is launched. Any funds not used by an agency after six months must be returned to the DEC for re-distribution.

Fourthly, all member agencies must sign the Code of Conduct for the International Red Cross and NGOs in Disaster Relief, item 10 of which imposes standards of behaviour in the use of images and publicity.

And *fifthly,* once an appeal is called the agencies must stop all individual advertising. For a period of between two and four weeks all advertising is done collectively under the DEC banner. Over the years this has been the hallmark of DEC collaboration and is strictly enforced.

Source International Development Committee, minutes of Evidence and Appendices 24th June 1998.

Annex 2 Terms of Reference

Background

The 1998 emergency appeal for famine in Sudan has generated some £6 million in pooled funds. This money has been divided between 10 member agencies to enable them to carry out vital emergency aid programmes including selective feeding programmes, general ration distribution, basic health, sanitation, water supply and the distribution of essential non-food items such as seeds and tools. DEC rules require an independent evaluation of the expenditure of appeal funds to be initiated eight months after the launch of the appeal and reported on twelve months after the appeal launch. The evaluation represents an important mechanism which aims to bring about greater transparency and accountability in the use of funds generated via services provided by the DEC's network of supporters and donations from the British public. It also enables agencies to learn individually and collectively from the experience of using DEC funds thus enchancing best practice in subsequent emergencies.

Main Aim of Evaluation

To assess the effectiveness, including the strengths and weaknesses, of projects funded by DEC pooled funds.

Method and Basis for the Report

The consultancy team will produce a report based on a detailed chronology of decisions and actions for each agency's involvement in the appeal and in the planning and implementation of projects. The chronologies will provide the basis for identifying the main obstacles that impeded the process of providing relief and a clear analysis of what happened. Agency 48 hour and 4 week Plans of Action, and their seventh month Final Report (which includes both a narrative and financial report) will also be used as key reference documents.

The evaluation will take into account the different approaches adopted by DEC agencies in South Sudan. Every effort will be made by the team to include the active participation of implementing partners, local staff, Sudanese nationals and beneficiaries. The team will also assess the overall operation with due reference to the Red Cross/Red Crescent NGO Code of Conduct, which all agencies have signed.

The specific terms outlined below are intended as a guide and the team should not ignore issues that come to light during the evaluation if they are deemed to be relevant and important.

Specifically, the consultancy team will:

a) Provide a short analysis of the process and content of each agency's individual assessment, outlining strengths and weaknesses. What degree of coordination was there between agencies?

b) Provide a comparison of each agency's targeting criteria and assess how appropriate they were. Did agencies share standardised criteria? In order to assess targeting and beneficiary selection procedures, a sample of potential beneficiaries who did not receive assistance should also be interviewed so that information can be provided on whether particular groups were overlooked.

c) Comment on each agency's project planning process and the appropriateness of the projects chosen. Was there an effective division of labour among the DEC agencies and what steps, if any, were taken to ensure that responses were co-ordinated with each other and with other agencies?

d) Comment on the implementation of each agency's programmes as outlined in the 4 Week Plan of Action.

e) Provide a short analysis of inter-agency co-ordination on the ground outlining the problems and possible lessons learned for the future.

f) Provide an account of the logistical (and political) constraints encountered in getting resources to the needy areas. Were resources used effectively and was the reponse timely?

g) Make an assessment of the appropriateness and effectiveness of the projects, given the customs, practices and politics in each situation. The team should ensure that beneficiaries and other stakeholders, (including GoS, SPLM, SRRA, Churches, UN, etc) are invited to give their views as to the assistance provided, the way they were selected, and any other relevant views of the agency in question. Special attention should be given to explore issues of gender, generation, and the needs of vulnerable groups.

h) If possible, provide evidence that the actions taken contributed to the reduction of morbidity, suffering and mortality; and that the affected population was assisted in retaining basic human dignity. What was the added value of DEC funds, indicating where possible what the consequences would have been if DEC funds had not been available.

i) Provide a short analysis of whether assistance given took account of the longer-term context, and whether this was appropriate in the circumstances.

j) Give an account of what kinds of advocacy work were carried out by member agencies and give recommendations as to how this can be better achieved in the future.

Evaluation Team and Time-Frame

The evaluation team will be comprised of two or three consultants all of whom will be approved by the Executive Committee. The evaluation team should bring a sufficient balance of the following: professional competence, Sudanese understanding, and gender awareness. The field team will include a Sudanese national and make every effort to be gender balanced. It is envisaged at this stage that a total of 210 person-days will be allotted for the consultants to carry out the evaluation. However, there should be a contingency for additional time if necessary.

Having reviewed the chronologies of agency decisions and actions prior to project implementation, the team will visit field offices and project sites to interview key personnel and beneficiaries. When field work has been completed, the team will hold a workshop(s) for agency and implementing partner personnel, as a means of disseminating their initial findings and allowing additional inputs and comments to be made at field level.

The total time taken to complete the final report, including time for agencies to comment on draft reports and incorporations of revisions, is likely to be at least 4 months. The final report will be completed by early May, 1999. The Report will be used to report back to the DEC's partner network of supporters and to the general public.

Annex 3 Historical Context of the Emergency

1) Pre-colonial and colonial history (Anglo-Egyptian Condominium, 1899-1956) created contexts for the present emergencies. Traditional economies, social relations, enmities, feuds, rivalries, alliances and ethnic relations continue with varying influences in present conflicts, though the reproduction of these relations is increasingly through the dynamics of emergencies.

a) Conflict between indigenous groups associated with cattle raiding, notably Nuer, Dinka and Baggara have been common since pre-colonial times. All the cattle cultures were and are involved to some extent. Undoubtedly, this has become more violent with the easier availability of modern weapons. It is believed that more than half a million cattle were taken northwards from northern Bahr el Ghazal in one raid. Traditional raiding has become a profitable industry for the *jallaba* (enriched trader/merchant elite). At the same time, the disruption caused in the south by these raids and the associated violence (the raids are sometimes linked with slavery, murder, rape and burning of settlements) furthers the aims of the Government. The Government of Sudan has created and armed militias and manipulated these tribal enmities particularly against the Dinka in an often successful attempt to break the power of the SPLM.

b) Predatory relations between pastoralists and sedentary agriculturists have a similar history and are used by the Government (and probably the SPLA) to a similar end. The effect of raiding and violence is to cause the displacement of people.

c) Conflict and unequal relations have long existed between southern (non-Arab) and northern (Arab) Sudan. This conflict is partly, but certainly not entirely, based on religious differences and has been intensified (see below) by fundamentalist religious movements and the attempted imposition of *sharia* law since 1983.

d) The most extreme example of exploitative relations is the movement of slaves northwards from southern Sudan. This is almost certainly continuing to the present.

e) The British colonial policy was to maintain southern Sudan as an underdeveloped area, without, for example irrigated agricultural schemes for export production, such as the Gezira, Gash and Tokar. Since decolonisation, power groups in the north, particularly the *jallaba,* the military and the riverine Arab elites have seen the south

as an area of expansion for commercial farming and for exploitation of minerals, particularly oil.

2) Discontinuous conflict has occurred from 1955 in Sudan between northern based governments and various southern groups. Some of these groups want independence, others want differing forms of federal government, others want an end to repression.

3) Oil was discovered in commercially exploitable quantities in Bentiu and Gogrial in 1978. Further exploration is occurring in this area with promising results. The Khartoum regime has recently completed a pipeline for the transfer of this oil to the north. In order to keep control of the oil, the Khartoum regime supports dissident militias in the south (Kerubino, Machar, Paulino and others) to destabilise these areas and force people to move out. It is no coincidence that some of the highest malnutrition related deaths ever recorded (63 per 10,000 per day) were in Gogrial during the 1998 famine.

4) The SPLA/M emerged in 1983/4 and with it the modern phase of conflict and chronic complex emergency. Modern automatic weapons have become available cheaply; a Kalashnikov costs about one goat. In rural areas many men routinely carry a rifle. Children are recruited as soldiers. Conflict is discontinuous, with neighbouring countries all playing self-interested parts, and more distant states supporting proxy wars or proxy politics. Refugees flood in and out, while people are internally displaced as a part of military/political tactics and strategies. Fluctuating fortunes on each side, reflect external and internal political activities.

5) The supplying of garrison towns reflects some aspects of the nature of modern conflict in Sudan. In order to supply Wau and Aweil garrison towns the Government of Sudan uses the railway. Protective outriders, usually on horses, accompany the infrequent trains. Ostensibly these outriders are irregulars, but they are supported and recruited by the Government of Sudan. Their function is to terrify and displace the local populations so that attack is less likely. During the wet season, when vegetation is tall and dense, they are restricted to the area near the track but during the dry season they spread out more widely. Associated cattle raiding, slave collection and organised violence carried out by groups of Baggara horsemen, particularly the Missiriya, helps to maintain instability.

6) Conflicts in Uganda, Ethiopia and Eritrea, Chad, Central African Republic and former Zaire affect Sudan with frequent and large displacements of population into Sudan

7) Periodic droughts of varying intensity have occurred throughout known history in Sudan. These were less severe in the 1960s but more severe in 1984-5, 1988-9, 1993-4 and 1998.

Between 1885 and 1998 there have been 13 major famines in Sudan. Famines may be very localised; as the time line below shows some are artificially restricted to garrison towns. Many of these famines have been linked to drought and others to flood. Some, as in 1998 have elements of both. Meteorological events, as in 1998, contribute to famine but conflicts tend to be the deeper cause. The war-created famines, unlike slow-onset drought-created famines may arrive very quickly, when crops are stolen or destroyed and people have to flee without any possessions.

Time Line of the Emergency

The roots of the complex emergency of 1998 are deep in history and the emergency reflects conditions from before Independence and the First Civil War. By 1997, the Government of Sudan had started to suffer reverses in the war with the SPLA. The 1998 emergency was caused, to a considerable extent, by the Government response to these reverses.

1997:
During 1997 SPLA starts to advance on Government territory
Sharp rises in morbidity and malnutrition among young children in south Sudan. during the year.

January;
SPLA/NDA offensives in north and north-eastern Sudan. Government towns are captured. By February 130,000 displaced people in difficult circumstances in rural (Tokar delta) and urban (Port Sudan) areas of north- eastern Sudan.
2,000 refugees return to Western Equatoria from Zaire/Congo
Government declares *jihad* against Ethiopia.

February;
Government of Sudan troops attack Nuba displacing 6,000 people.
Border with Eritrea closed.
Conflict caused by Kerubino and SSIM
Government loses several southern towns.

March;
SPLA gains in Government areas of Equatoria and Blue Nile. SPLA capture Yei and Kajo Keji in Equatoria
Refugees start to return from Uganda in large numbers to Equatoria (possibly 50,000)
Much of displaced population of Yei returns
Government of Sudan bomb Yei four times over a few weeks
Ban on C-130 drops until June.
Ban on all flights to Equatoria

Ban on flights to 33 sites in Bahr el Ghazal.
MSF(B) reports acute malnutrition rates of 30 per cent in northern Bahr el Ghazal, caused by conflict between Paulino Matiep (SSUM) and Riek Machar (SSDF) in oil-rich Bentiu area

April;
Peace agreement by Government of Sudan and 5/6 former SPLA groups including SSIM, SSUM and SSDF.
Drought starting.
130,000 refugees returned from Uganda during the last two months.

May;
Malnutrition rates (OLS) up to 24 per cent in Malakal, Wau, Juba and South Kordofan

June;
Government bans flights to 34 airstrips.
Government mobilises against Eritrea
UNICEF notes rising infant mortality in south

July;
Government bomb Labone on Ugandan border kills 14
Uganda masses troops on border
Sleeping sickness affects 19-24 per cent of population of Western Equatoria
Baggara attacks on Dinka restart in Bahr el Ghazal.
Further ban on C-130 drops
Government of Sudan, suffering military reverses, offers to accept previously rejected IGAD principles for negotiation though not accepting them as binding.

September;
More refugees return from northern Uganda to Equatoria.
SPLA (United) cease-fire.

October;
End of first peace talks for three years; Government proposes federal system.
SPLA and NDA reject proposed cease-fire.
OLS Food Needs Assessment suggests 50-60 per cent food gap likely between March and November 1998 in parts of Bahr el Ghazal.

November;
Lord's Resistance Army attacks Labone IDP camp and kills 35.

Further ban on C-130 drops.
Nuer/Dinka clashes in Gedaref.
Start of heavy rains in Lake Victoria basin, leading to El Nino flooding of Nile during 1998.
SRRA Food Needs Assessment (complementary to OLS assessment) predicts cereal deficit for 1998 of 80,000-120,000 Mt. Attributes this to drought and war.

December;
SPLA now control most of Equator and Bahr el Ghazal.
FAO/WFP Crop and Food Supply Assessment Mission anticipates significantly smaller harvests next year.

1998: (The year of the world's biggest ever air drops).

January:
Fighting in Wau (Kerubino Bol changes sides to attack Government), Gogrial and Aweil displaces some 150,000 into Bahr el Ghazal by late January. Some return to cause feeding problem in Aweil, Gogrial and Wau.
Fighting within Wau, comparable to events 10 years earlier
Complete flight ban in Bahr El Ghazal
Paulino in Maniken threat to northeastern Bahr el Ghazal throughout 1998.
El Nino floods build up. Effect continues along Nile up to the present with Lake Victoria as reservoir.
During this month 27 separate evacuations of OLS personnel, mainly in Bahr el Ghazal

February:
Continued restriction on air access. 5th February all flights to BEG stopped.
Problem of seed delivery for next planting threatens harvest.
WFP air drop 2 ,000 Mt.
24th February partial lifting of flight ban.

March:
Some improvement in air access
Malnutrition starting to rise quickly in BEG.

April:
Several agencies in field starting to warn of famine
20th attack by PDF in Aweil East.
21st World Vision inform DEC secretariat of problem in BEG and West Equatoria
24th some disagreement in DEC on whether appeal justified
27th DEC Executive vote unanimously against appeal though agree a watching brief.

Access problem for OLS agencies. Non-OLS agencies argue for appeal.

May:

2nd only 20% of UN Appeal funded so far.

12th World Vision press conference publicises famine

PDF raid in Twic.

14th -15th May, random survey of children in Leer Town shows 32.5% global malnutrition and 6.5% severe malnutrition.

WFP recognise famine will be worse than predicted in 1997.

15th May DEC agree appeal to be made

Crisis clearly visible

18th May WFP food available insufficient to September by 1/3rd, severe transport under-capacity. Need extra C-130.

Shortage of aviation fuel

WFP admits huge difficulty in supplying basic ration

WFP estimates 350,000 in need in BEG, doubles estimate 30 days later

Access improves with relief corridors and GoS agrees ceasefire

Ajiep 37% severe malnutrition in supplementary feeding centre

21st May Appeal publicised.

22nd food distribution sites in northern BEG.

UNICEF 10 site survey shows global malnutrition rate 52.7% in northern BEG

Raids in BEG and SPLA attacks in Blue Nile.

WFP recognises crisis as famine

June:

PDF raids in Twic.

WFP air drop 6,000 Mt

8th June WFP predict severe shortfall in food available

DEC agencies support logistics of WFP and UNICEF because insufficient food getting through.

OLS estimate 1.2 millions in need in south Sudan, 2/3 of these in BEG.

Search for seeds for planting (delayed rains allow better access and time but allows more raiding)

Feeding largely by agencies previously on the ground

Sorghum prices in Wau County reach £S 4 400 / 90 Kg bag (1996 and 1997 = £S 400)

MSF report that in last 12 weeks six fold increase in supplementary feeding of under 5s in BEG.

Seven of 63 under 5s in Ajiep therapeutic feeding centre die.

July:

Heavy rains arrive, but three months late; damage to crops and threat to next harvest. Floods cause problems for road and air transport. Unusually heavy rains continue until November.

WFP providing rations for 1.3 million people.

15th SPLA agree three month's cease-fire and three land access corridors to Bahr el Ghazal.

20th July maximum new clients in Ajiep supplementary feeding centre.

60 per day dying in Wau

Famine escalating in view of commentators

Some agencies stretched, unable to cope, search for scapegoats.

Dysentery in Ajiep.

Large scale diversions by SPLA claimed.

Increasing floods in Bor.

August:

Peak of famine?

Heavy rains continue

WFP drop 12,000 Mt (most ever in any emergency?)

Week 2 heaviest load in Acumcum feeding centres

Malnutrition Ajiep 80%; Panthou 70%

Crude mortality rate Ajiep 26 / 10,000 / day

Crude mortality rate northern BEG MSF sites 22 / 10,000 / day.

Leer invested with possibility of becoming GoS town.

FEWS reports improving conditions from August.

September:

WFP deliver 10.2 Mt to 1.2 million people.

Acumcum TFS under 5s opens and adult TFS centre opens

Ajiep adult supplementary feeding centre and therapeutic feeding centre reach maximum numbers.

FEWS argue that conditions are improving

October:

Resurgence of severe malnutrition Ajiep therapeutic feeding centre and maximum numbers Ajiep therapeutic feeding centre.

Heavy fighting among Nuer in Upper Nile

Global malnutrition UNICEF/OLS survey in northern BEG 28.6% but some centres over 30% still.

Upper Nile chronic insecurity

Rains decreasing but floods in Bor rising, leads to displacement (one metre rise = hill) reduces scope for some famine foods and spear fishing.

November:

Signs of improvement recognised by commentators.

But peak input of WFP food (over 12,000 Mt.)

Adobe supplementary feeding centre maximum adult load.

Nile floods serious (late effect of El Nino)

Harvest poor

Ajiep crude mortality rate 2 / 10,000 / day.

Average crude mortality rate MSF northern BEG sites 2 / 1,000 / day (serious but under control)

December:

Famine largely stabilised. Commentators disagree.

1999

January:

Many feeding centres closing.

WFP air drop 7,000 Mt.

Annex 4 UNHCU Timeline

Chronology of events in Wau:

- Attack on Wau at end of January 1998
- Out-flux of population from Wau estimated between 70,000-100,000 following some human rights abuses.
- Major criticism of the UN was the lack of information on the movement of this population – where they were travelling to, crossing front lines etc.
- Two assessment teams in February and March visited Wau and identified pockets of needs as the population was extremely small with only the old, disabled and a few Dinka remaining in the town
- Acute needs began at the end of April and May
- WFP and UNICEF had small offices with little manpower thus capacity to respond was extremely weak
- SCF UK operational in Wau and MSF (H) had initial plans to support the hospital
- A trickle developed into a flood of people returning to Wau in mid June with between 1,500 to 2,000 entering the town daily.
- By end of May aware that the situation was extremely serious but WFP/UNICEF were not prepared.(Tony Hall, American senator visited and was very critical)
- Emergency Working Group (ERT) was set up by the local relief committee
- At this point not sufficient capacity to respond as the population arriving were too weak to look after themselves, sorghum was the only food in Wau and 70-80% of the population were not used to this food.
- UNICEF/WFP had no capacity to respond as offices had been looted in January/February plus team consisted of only one/two persons.
- (I)NGOs had not gained access as they wanted to bring in expatriates which was a slow and bureaucratic process
- Mid August UN Special Envoy visited and drafted a document to the Government to assist (I)NGOs to become operational by facilitating the speed up of visa and travel permits
- At end of August the daily death rate was greater than 100 persons
- End of August there was a in-flux of NGOs causing duplication especially of feeding centres with WFP distributing a ration of 1,900 kcal and also wet feeding continuing
- Twenty health clinics were set up
- Re-location of displaced to Eastern Bank where shelters had been built

Constraints:

- Logistics was a major constraint particularly with limited flight and cargo space

- Initially few NGOs on the ground, MSF (H) arrived in late 1997 with plans to support the hospital, while SCF was involved in education since 1995.
- MSF (H) wanted to do a nutritional survey before becoming operational although it was apparent that the nutritional situation was critical.
- External environment was bureaucratic and invariably political
- No senior UN officer in Wau to co-ordinate activities on the ground
- No full time UNICEF nutritionist based in Wau
- Beneficiaries afraid to attend the hospital
- Lack of shelter in Wau lead to deaths due to hypothermia, as it was the rainy season

Lessons Learnt::

- More accurate mapping and information on population movements is essential
- Strengthen relationships between UN and NGOs to open space for humanitarian response in emergencies
- NGOs need to adapt to how they respond within the structures of the country in emergency such as working more closely with local skilled people rather than recruiting many expatriates as this may delay the response.

Annex 5 Dynamics of a Garrison Town: Wau

Background

The Government of Sudan (GoS) divided the southwest region of Sudan into four states in 1994, West Bahr el Ghazal; North Bahr el Ghazal; Lakes and Warrup. Most rural areas have been under the control of the Sudan Peoples Liberation Army (SPLA) since the last major offensive in early 1997 with the government controlling garrison towns and their surrounding areas. The main GoS locations in this region are Wau, Raja to the west, and Aweil and Gogrial to the north.

Wau is the provincial capital of West Bahr Al Ghazal, situated on the West Bank of the River Jur, and serves as the provincial seat for the GoS authorities for Warrup and Lakes states. The accessible land area around Wau has been considerably reduced during the latest offensive in January 1998, thus the enclave now only extends some 35 kilometers to the north of the town, 10 kilometers to the south and 15 kilometers to the east. Areas to the west remain in the control of GoS but are insecure with very fluid battle lines.

Access

Prior to the last offensive, travel between Wau and Raja by road was reliable except in the rainy season when the road became impassible. Raja, in turn, is accessible from the north. In more recent times, the road between Wau and Raja is not altogether secure with attacks by regular and irregular forces: it is also sometimes mined.

There is an airstrip but this is not an all weather strip: during the rainy season it can be difficult to land. At present there are flights most days to Wau both commercial and military. The UN and ICRC also fly regularly to this location.

The train line comes from Muglad in Darfur, which is mainly used by the military and commercial traders but takes many weeks to accomplish the trip. In the past, OLS used this as a supply route but this has been abandoned since 1995.

Population

It is extremely difficult to get any consensus on population figures. This is not altogether surprising due to the ongoing conflict and displacement in this region. It is estimated that there was a population of around 200,000 between Wau and Raja towns, the garrisons and outlying areas of Aweil and Gogrial following the SPLA offensive in 1997. In Wau, the population is made up of Fertiit, living in the western part of the town, Dinka and Jur living in the south, east and north. There is also a considerable military presence based in the north of the town in Grinty. The River Jur is the traditional border between the Fertiit, a mainly agricultural people and the Dinka and Jur who are largely pastorals.

Recent Population Movements

In late January, 1998, Commander Kerubino Kwanyin Bol defected from the GoS and attacked the town of Wau but when the GoS regained the town, violence, particularly against the Dinka and Jur, caused a huge displacement of people. It is estimated that possibly 70,000 –100,000 persons fled the town and surrounding areas into rural areas, remaining in the bush or crossing front lines into SPLA-controlled areas.

Due to a drought-stricken harvest the previous year (1997), the rural communities themselves were under stress. With the sudden influx of a large number of displaced people, the displaced found difficulty accessing food. In some communities, the new community was not included in the food distribution given out by chiefs forcing these displaced communities to continue moving. This led to mass movement from area to area in search of food, concentrating around sites for aircraft delivery – the C-140 population.

Although there had been a slow trickle of people returning to Wau from April, the main population influx commenced during early June. By mid July, it is estimated that there were between 1,000 and 2,000 people a day arriving in town in search of food. Initially the population consisted of returnees and displaced persons although many of these displaced had not come from Wau, later the rural community also began to filter into the town. A recent head count conducted by WFP and some NGOs suggest that the present vulnerable population consists of 45,000 displaced people and a further 11,000 returnees. There is some controversy over the accuracy of these figures.

At present, there appears to be a small number of people arriving in Wau, especially from Tonj, approximately 300 families (early March 1999). Although they are not in extremely poor condition, the fear is that there may be a magnet affect as people become food insecure once again.

Mortality Data

The people entering Wau in June/July, 1998, appeared to be in extremely serious condition both in nutrition and health terms which is confirmed by the extremely high mortality rates in August of over a 100 people a day dying. It is difficult to obtain reliable figures on mortality rates as, during the influx, the few agencies on the ground were overwhelmed by the needs and condition of people arriving in the town. Assuming that most of the deaths were among the displaced and returnee population and estimating that this may have been around 50,000, this would give a crude mortality of 20/10,000 a day indicating a catastrophe. It is estimated that the total number of deaths in Wau, between July and October, was some 5,000 people. CARE recruited fifty volunteers to assist in the burial of bodies around the town of Wau. These figures do not reflect the death of people outside the town that may have not had the strength to reach the town. It is impossible to collect accurate data on this issue. Interviewing one family of IDPs, living in Eastern Bank camp, a group of 50 persons travelled from Tonj and ten died on route, two children and eight adults. This was just one of many accounts of loss of life on route to Wau.

Morbidity Data

The main diseases recorded were malaria, diarrhoeal disease and acute respiratory illness (ARI). This was in part due to the extremely poor nutritional status of the population leading to the '*malnutrition infection cycle'* with an elevated incidence of diseases. Mosquito nets were distributed as part of the non-food item package. This would have assisted in reducing the incidence of malaria, although it was reported that on occasions these nets were used to wrap bodies prior to burying.

Nutritional Data

Malnutrition in under five years

Due to the lack of (I)NGOs on the ground and poor capacity by UNICEF to respond, there was no baseline data. Although UNICEF was committed to a nutritional survey at the end of June, this did not happen until the beginning of August. The results from this survey show staggeringly high malnutrition rates in the resident, returnee and displaced communities, but the displaced community had a severe malnutrition rate of 41.3% compared to 18.6% in the resident community in the under five year population (see Table below). In all of the displaced children under five years, over two thirds were suffering from malnutrition, either moderate or severe, indicating that the nutritional status was serious. The methodology used was cluster sampling and over 1,000 children were measured.

Table 1 Nutrition Survey in < 5 years in Wau August 1998 (UNICEF)

	Wau Residents	Displaced	Returnees
Normal	56.7	28.4	47.6
Moderate Malnutrition	24.7	30.3	24.6
Severe Malnutrition	18.6	41.3	27.8
Global Malnutrition	43.3	71.6	52.4

In November following nutritional interventions a further nutritional survey was conducted in Wau town and Eastern Bank camp indicating a substantial improvement in the nutritional status in both the town and IDP population but the IDP malnutrition rate was still unacceptably high with global malnutrition of 27.8% (see table below)

Table 2 Nutritional Survey < 5 years conducted by UNICEF November 1998

	Wau Town	EBC/ IDPs
Moderate Malnutrition	7.2	18.3
Severe Malnutrition	2.4	9.5
Global Malnutrition	9.6	27.8

(EBC means Eastern Bank Camp)

Adult malnutrition

It is extremely difficult to gather accurate data on malnutrition in adults. Due to the overwhelming numbers arriving only the ones that were 'too weak to stand' were admitted for therapeutic feeding while admissions to the wet kitchens were done on the physical condition of adults. Due to the poor condition of the adolescent and adult population, agencies were forced to open wet feeding kitchens, as many of these people were unable to care for themselves. CARE and ICRC were the main agencies dealing with adult moderate malnutrition while MSF opened a therapeutic feeding centre for adults. CARE was feeding over 6,000 adults daily with ICRC feeding approximately a further 1,500. CARE attempted to conduct strict measurement of adults using a criteria of Body Mass Index (BMI) >13 and < 17 but, due to fear of people losing meal cards if healthy people stopped coming, the measuring was abandoned.

High rates of mortality among the severely malnourished adults was a major concern to MSF with a mortality rate of around 30 per cent, initially seen in the younger adults around twenty years old and later in the older adults. This, in part, was due to the extremely poor condition of this population on admission to the centre.

Present Situation

Although the crisis has stabilized, the situation remains volatile. In the OLS 'Needs Assessment' conducted in November 1998 it was concluded that of the 72,000 registered WFP beneficiaries in the town of Wau and environs there will be a 90 per cent food deficit. This, in part, is due to the lack of access to farmland as there is only access to land in a five-kilometer radius of the town and IDPs may not have any access to this land. This means that a large population will be completely dependent on food aid for the coming year. Many of the northern traders have not reopened premises since the last conflict and this has a serious effect on the town's economy including casual labour.

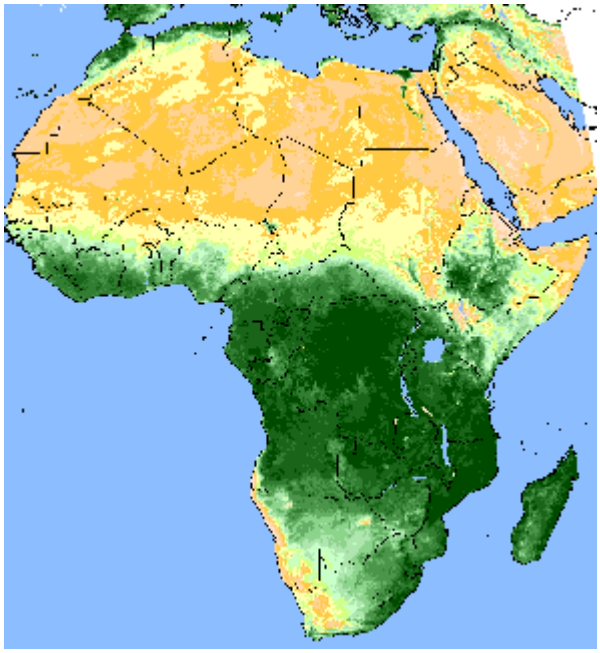
In recent weeks, there has been a slow trickle of new IDPs arriving in Wau, partly due to the last poor harvest and flooding. There is a concern that Wau may become a magnet as food depletes in the rural areas.

Finally, and most crucially is the political situation with the possibility that the cease-fire will not continue beyond mid April 99. In the event of renewed insecurity or hostilities, the situation in Wau may deteriorate extremely quickly, as the town could become completely isolated. As the population is dependent on food aid, this could lead to a major catastrophe.

Annexe 6

Sudanese Vegetation Response to Rainfall:

A Comparative Analysis of Normalised Difference Vegetation Index Data for 1997 and 1998.



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THE NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI)

Every feature on the surface of the Earth interacts with incoming energy from the Sun in the form of electromagnetic radiation. The amount of energy that the feature reflects, absorbs and subsequently emits across a range of wavelengths is known as the spectral signature. Each feature has a unique spectral signature in terms of the amount and wavelength of electromagnetic radiation that is reflected. It is this reflected radiation that is used to differentiate between different surface cover types.

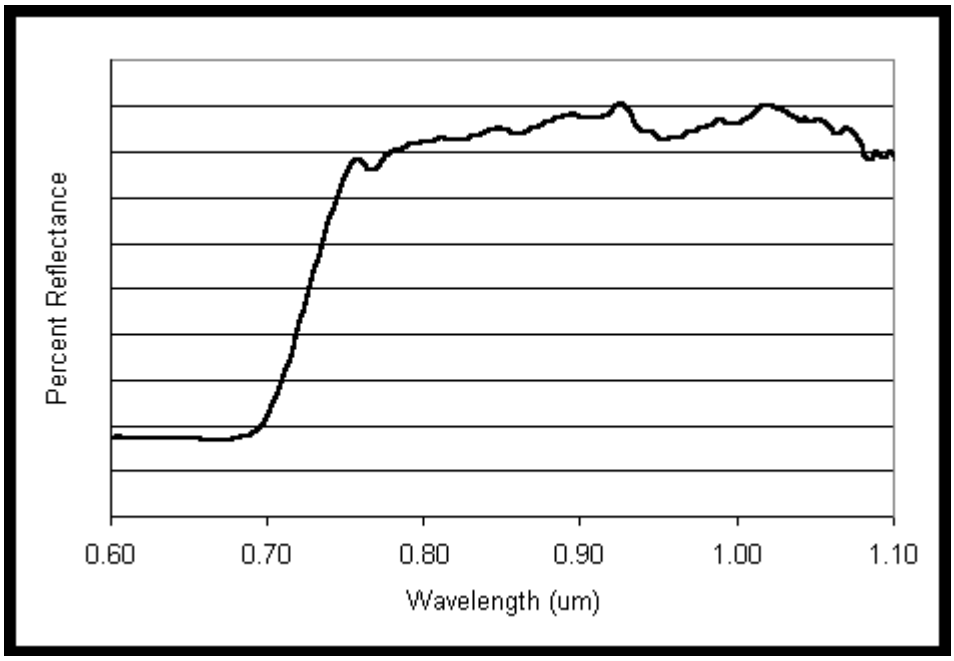


FIG.1 The relationship between reflectance in the visible red and near infra-red from a green plant.

The spectral characteristics of green plants are distinctive and can be used to identify areas of vegetation. All photosynthesising plants contain several pigments that absorb visible light to use in the production of energy, particularly in the visible red part of the spectrum (0.6-0.7 μ m). Beyond a wavelength of 0.7μ m the internal leaf structure and the absence of absorbing pigments results in high reflectance of near infrared radiation (0.8-1.1 μ m).

There is in the region of a 60-80 percent increase in reflectance in the near infrared over visible red for healthy photosynthesising plants. The ratio of near infrared to red reflectivity can, therefore, indicate the amount of green vegetation and vigour of growth. This is the basis of a vegetation index.

Many vegetation indices are available for environmental assessment (a comprehensive list can be found at http://www.geog.nottingham.ac.uk/remote/rsvegfaq.txt) and all have their own benefits and constraints. The purpose of vegetation indices are to reduce the amount of information in the original satellite data to a single image dataset which is sufficient to characterise vegetation activity and growth. The Normalised Difference Vegetation Index (NDVI) is probably the most commonly used and widely available vegetation index. It is routinely produced from the Advanced Very High Resolution Radiometer (AVHRR) sensors onboard the NOAA meteorological satellites. This is a simple ratio formula, the concept of which was first presented

by Kriegler *et al*. (1969), but was developed in relation to the "greenwave effect" at a continental scale by Rouse *et al*. (1973).

The NDVI is calculated in the following way:

$$NDVI = \frac{(\rho \text{ near infrared} - \rho \text{ red})}{(\rho \text{ near infrared} + \rho \text{ red})} \text{ where } \rho = \text{reflectance}$$

The result of the equation is a value typically between –0.1 (visible red greater than near infrared, i.e. bare red soils) and 0.6 (very green area), although the possible range is from –1 to 1.

The NDVI has been shown to be highly correlated to biophysical vegetation parameters such as levels of green biomass, percentage of green cover and primary productivity (Asrar *et al.*, 1984). A number of studies have implemented the use of the NDVI for studies of vegetation mapping and monitoring including Townshend & Justice (1986), Tucker *et al*.(1986) and Prince & Justice (1991). Much of the work has been undertaken in the African Continent using NOAA AVHRR derived NDVI data because of the daily coverage and large scale spatial coverage. As a result extensive studies throughout Africa, notably in the Sahelian region, have provided an insight into regional and continental scale vegetation dynamics since the early 1980s. This has led to widespread acceptance that the NDVI correlates closely to the biomass of green vegetation. In (tropical savanna) areas such as Sudan, where primary production is closely related to rainfall (Lamotte & Bourliere, 1983), it has also been suggested that NDVI data can be used to monitor rainfall (Hielkema *et al.*, 1984).

DATA USED FOR THIS STUDY

NDVI data from the NOAA-AVHRR sensor is compiled and processed by the Global Inventory Monitoring and Modelling Studies (GIMMS) at the National Aeronautics and Space Administration (NASA). The data is received from the sensor at 4km resolution, known as Global Area Coverage (GAC), then processed to derive Global Vegetation Index (GVI) images showing NDVI values at a scale of 8km which can be used for regional and continental studies. To reduce the effects of cloud contamination and sensor viewing geometry, which can depress NDVI values, a technique of maximum value compositing (MVC) is employed (Holben, 1986). This procedure selects the maximum daily NDVI value for each pixel over the compositing period of 10 days which are representative of data obtained in near-nadir viewing angles, under cloud free conditions. The NDVI data used in this study was analysed in dekads derived from the 10 day compositing technique. Each month is comprised of 3 dekads containing the maximum NDVI values for the 10 day period. Analysis of the data in this format allows differentiation between the early, middle and late phases of the month and consequently allows a more detailed analysis than would be possible from monthly images.

The GVI images are divided into categories relating to values from the NDVI equation. The data used has twelve categories of vegetation that are colour coded according to amounts of green vegetation. Yellow and orange colours indicate negative NDVI values and represent unvegetated areas of bare soil and desert. Light green areas relate to low positive values indicating sparse vegetation. Progressively darker green represents increasing positive values from the NDVI corresponding to an increase in vegetation intensity.

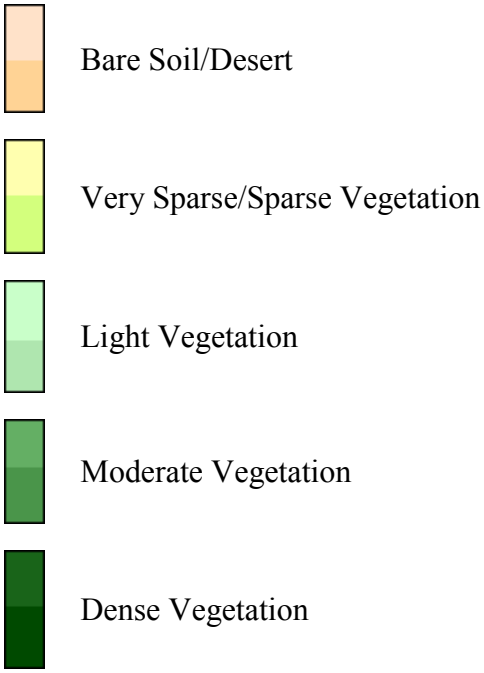


FIG 2. Legend for NDVI Images

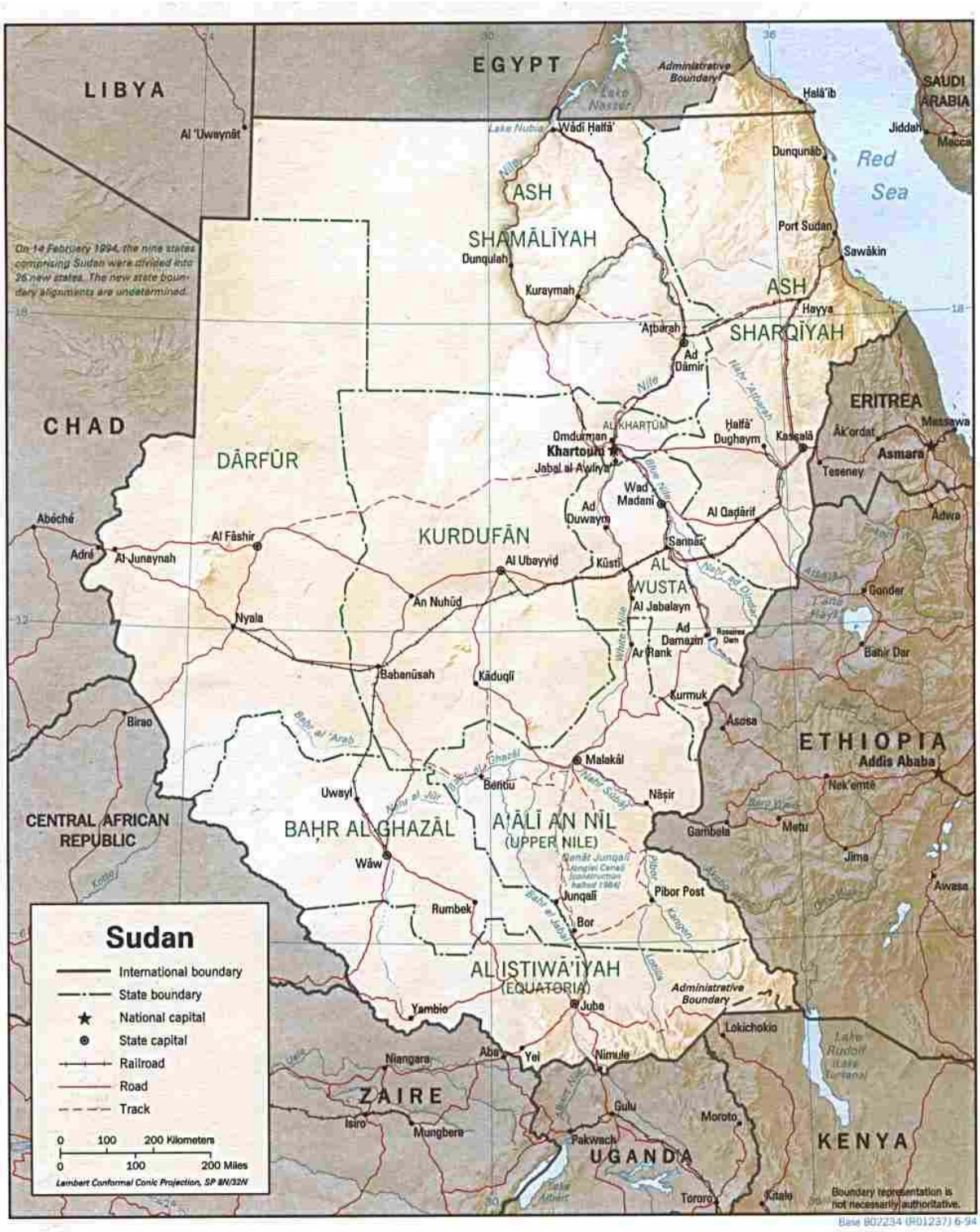
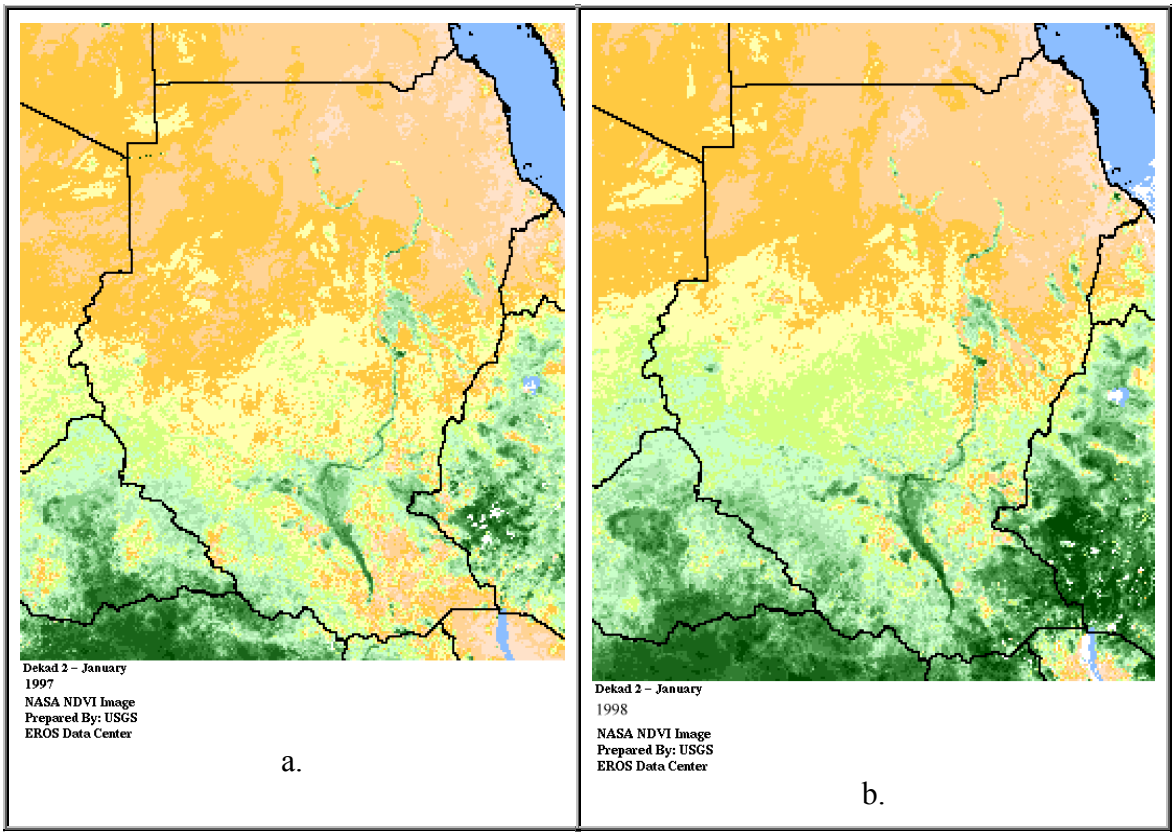


FIG 3 Locational map of Sudan indicating major urban areas, international boundaries, second level administrative boundaries, and hydrology (Perry-Castañeda Library Map Collection, 1999)

ANALYSIS OF NDVI IMAGES

JANUARY:

The highest vegetation responses during the early period of 1997 were confined to the channel of the River Nile and its' tributaries. Towards the end of the month the density of green biomass in the south western borders of the country was beginning to increase to levels similar to those experienced in 1998. Areas of woodland and grassland mosaic in the central regions of Darfur and Kordofan exhibited a moderate biomass response during both 1997 and 1998. Throughout January the overall level of green biomass was most dense during 1998, 9% of surface cover in comparison to 4% in 1997, with the region of deciduous bushland in the south east of the county experiencing the largest differences. Accordingly 1997 had a greater percentage cover of bare soil and extremely sparse vegetation, 59% compared to 53% in 1998. The regions of Upper Nile, Bahr Al Ghazal and Equatoria experienced an increased percentage cover of dense biomass, particularly during the latter part of the month in 1998.



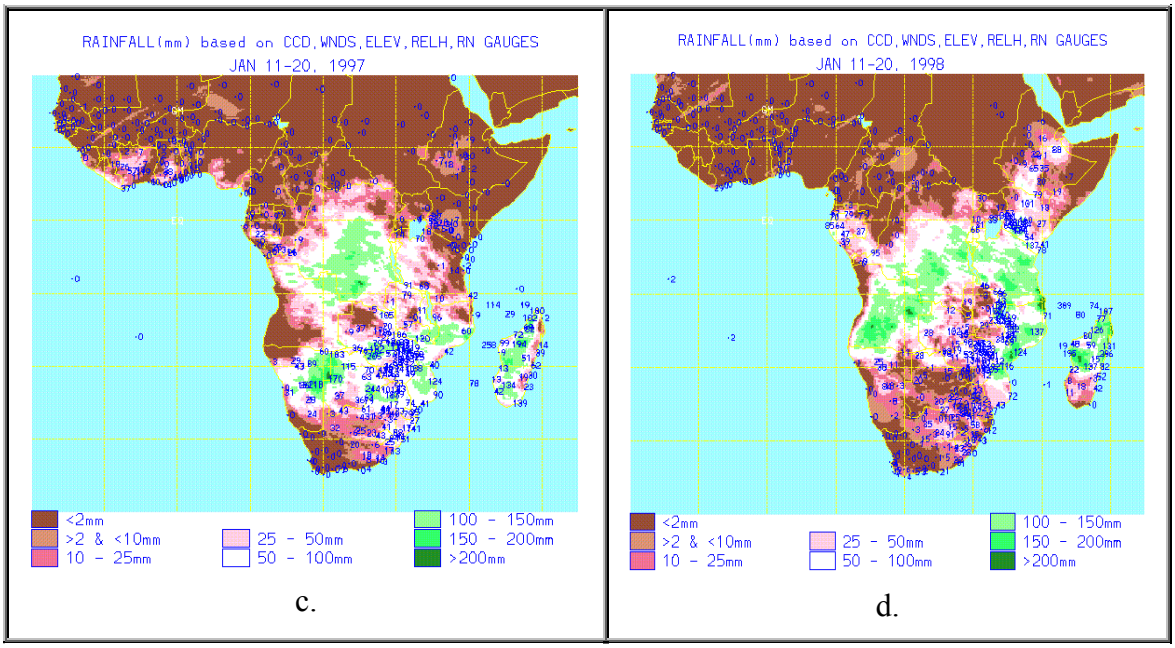


FIG 4 (a) NDVI for January 1997, (b) NDVI for January 1998, (c) Rainfall for continental Africa 1997, (d) Rainfall for continental Africa 1998 (FAO, 1999)

FEBRUARY:

Dense areas of green vegetation decreased in areal extents in the woodland belt along the borders of the Central African Republic and the Democratic Republic of Congo in 1997 although the overall amount of dense green vegetation increased by 1% to 5% of surface cover. The dense patch of vegetation present in the south east corner of the country during January 1998 began to fragment during February whilst the percentage of green vegetation cover, particularly in the central region of Kordofan, also diminished. Vegetation associated with the Nile channel became indistinct to the region north of Malakal and the region around the White Nile and Blue Nile confluence towards the end of February 1998. The density of biomass indicated by the NDVI responses was greatest during 1998 at 6% of surface cover, although the spatial distribution of the cover was similar between the two years. An exception was the pocket of dense vegetation relating to the bushland and woodland area along the Ethiopian and Kenyan borders.

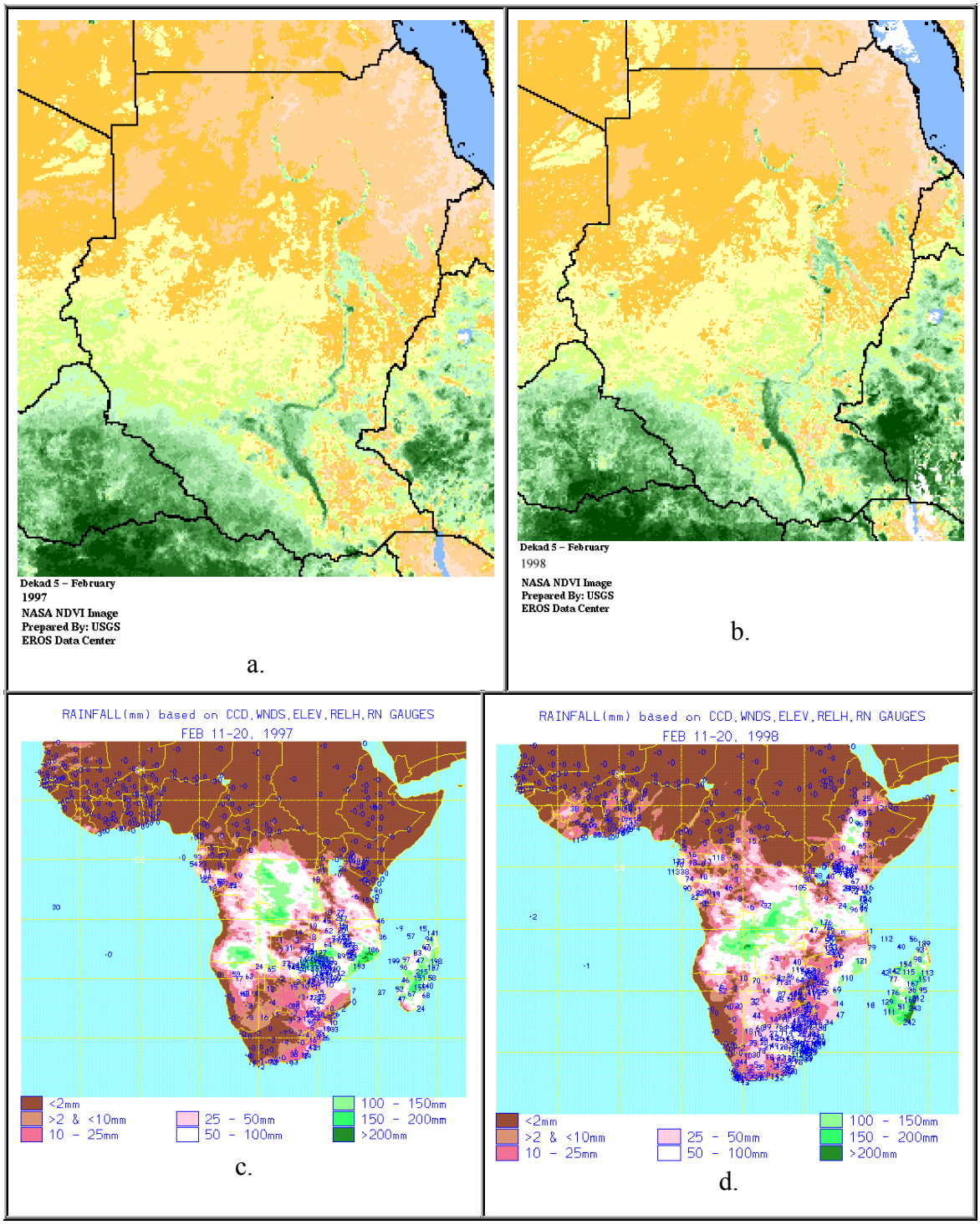
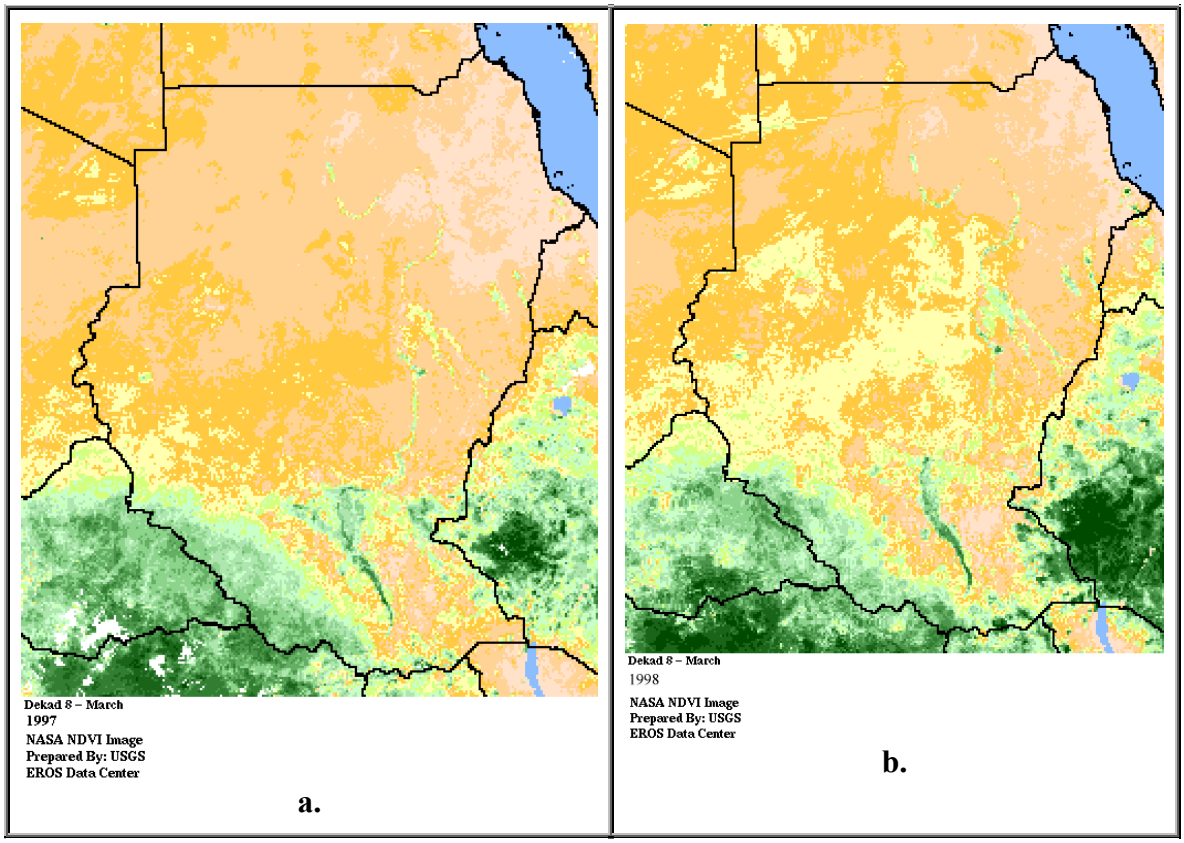


FIG 5 (a) NDVI for February 1997, (b) NDVI for February 1998, (c) Rainfall for continental Africa February 1997, (d) Rainfall for continental Africa February 1998 (FAO, 1999)

MARCH:

The early part of March 1997 was stable both in terms of distribution and intensity of vegetation responses, indicating a continued level of primary production. Towards the latter part of the month, however, there was an increase in the density of biomass present within the woodland belt in the south west of the country. The areal distribution of intermediate vegetation response,

indicating a moderate vegetation cover, was constant at 6% of surface cover throughout March 1997. The following year a southward retreat of the extents occurred particularly affecting regions of Southern Darfur and South Kordofan, which experienced extremely sparse vegetation towards the latter part of the month. The headwaters of the White Nile (the Bahr el Jabal) exhibited dense vegetation associated with the river channel during the whole of March 1998. The response was similar during March in 1997 although the Bahr el Ghazal tributary supported a greater extent of vegetation cover. During 1998 the distribution of dense vegetation cover became increasingly confined to isolated pockets along the borders with the Democratic Republic of Congo, Uganda, Kenya and Ethiopia. This month exhibited the greatest amount of bare soil, desert and sparse vegetation comprising 75% of surface cover in 1997 and 73% in 1998.



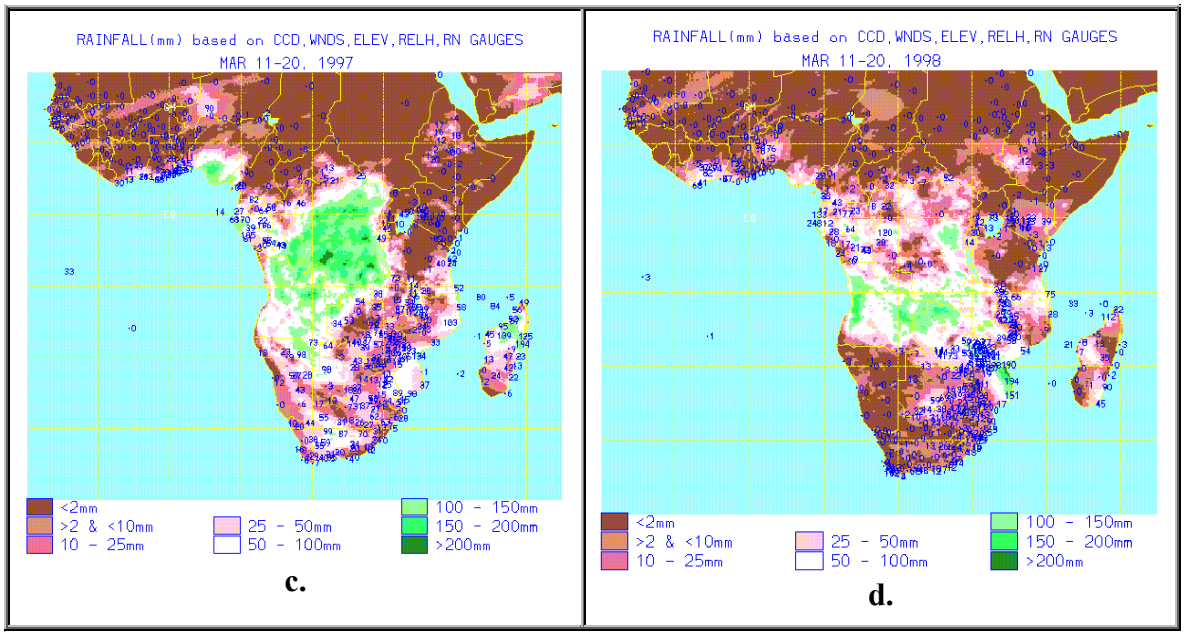


FIG 6 (a) NDVI for March 1997, (b) NDVI for March 1998, (c) Rainfall for continental Africa March 1997, (d) Rainfall for continental Africa March 1998 (FAO, 1999)

APRIL:

Throughout April 1997 the extent of dense vegetation cover increased considerably, from 3% in March to 9%, with a progression of the dense biomass belt northwards from the Democratic Republic of Congo, the Central African Republic and Uganda into the southern regions of Sudan. During the latter part of the month there was an extension of the zone of dense green vegetation in an easterly direction towards the border with Ethiopia. The channel of the Upper Nile upstream of Malakal became increasingly prominent throughout the month in the provinces of Jonglei and East Equatoria. During April 1998, the area of dense biomass response was confined to the Upper Nile channel and along the borders of the Democratic Republic of Congo and Uganda. There was an area of extremely sparse vegetation in the south east of the country, which corresponds to the zone of deciduous bushland along the Kenyan border. In comparison, April 1997 exhibited a greater areal distribution and density of green vegetation than the corresponding period in 1998 with the most significant difference shown in the latter period of the month.

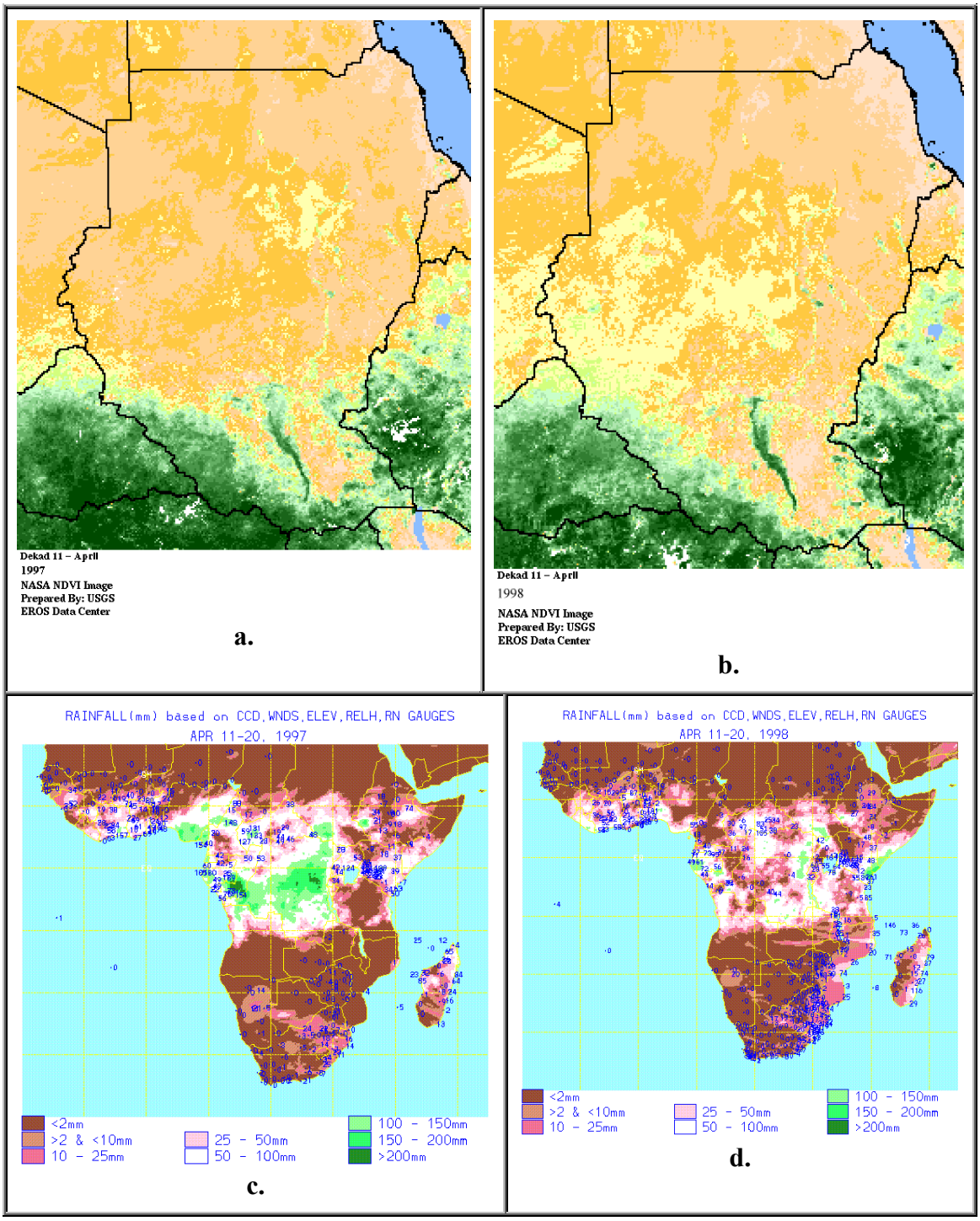
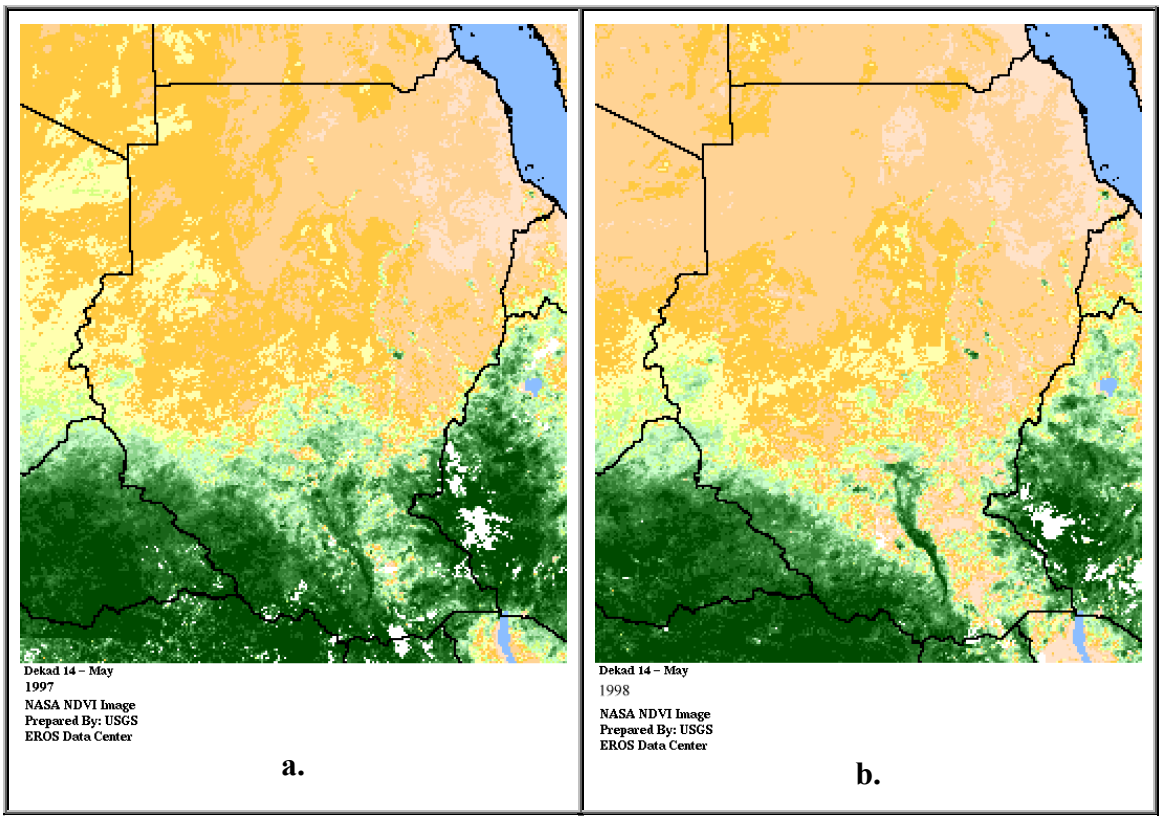


FIG 7 (a) NDVI for April 1997, (b) NDVI for April 1998, (c) Rainfall for continental Africa April 1997, (d) Rainfall for continental Africa April 1998 (FAO, 1999)

MAY:

The increase in percentage cover of dense vegetation continued to 21% of cover during May 1997 in particular towards the end of the month. The extension northwards progressed to a latitude of approximately 10° north with the block to the south west of the country becoming amalgamated with the dense vegetation associated with the Upper Nile channel. During May

1998 the belt of dense green vegetation that developed along the border with the DR Congo in April, showed a similar progression northwards, although at a much slower rate than the previous year increasing to 17% of surface cover. The Upper Nile channel remained distinctive with the vegetation not extending to the same northern extents as in 1997. Towards the end of the month encroachment of dense vegetation from the Ethiopian Highlands occurred along the eastern borders of the country although there remained a corridor of sparse vegetation to the east of the Upper Nile channel. The overall distribution of green vegetation cover remained greater in 1997 with particular differences between the years towards the end of the month in the regions of the Upper Nile and Bahr al Ghazal.



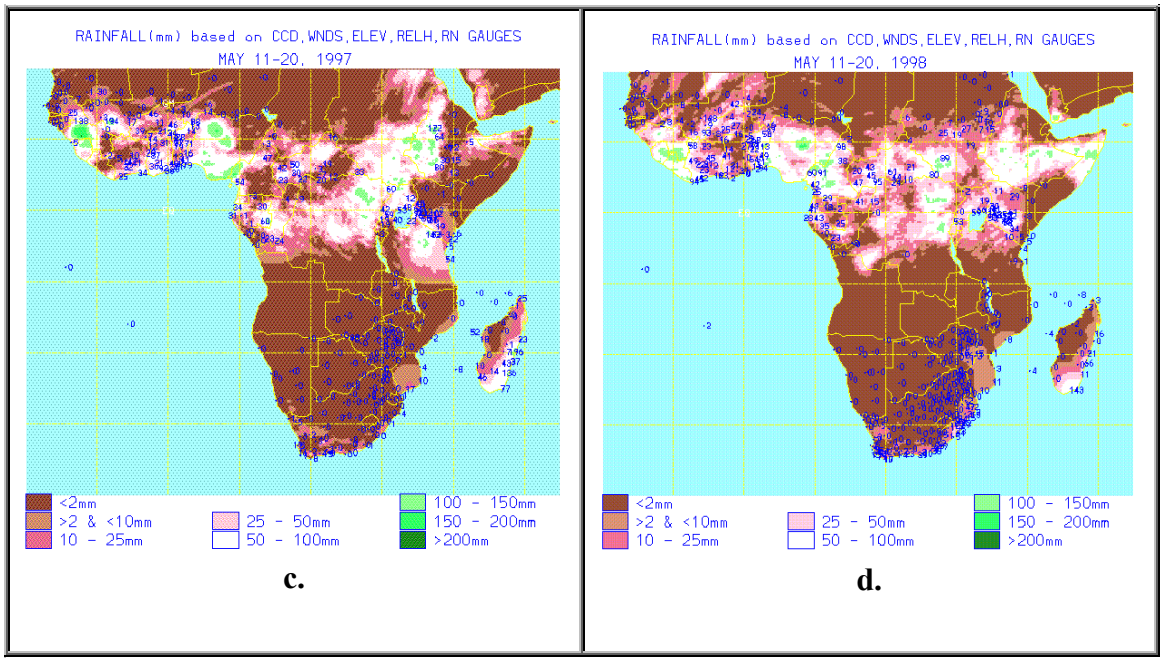


FIG 8 (a) NDVI for May 1997, (b) NDVI for May 1998, (c) Rainfall for continental Africa May 1997, (d) Rainfall for continental Africa May 1998 (FAO, 1999)

JUNE:

The margins of the belt of dense and moderate vegetation cover continued to progress northwards during June 1997, although immediately west and east of the Upper Nile channel there was evidence of a decrease in biomass intensity. The response within the wave of dense vegetation extending northwards from the centre of the continent also appeared to decrease towards the end of the month. The extents of dense green vegetation in 1998 continued to increase to 19% of surface cover, with amalgamation of the cover associated with the Upper Nile and the zone in the south west to form a homogenous block. The corridor to the east of the Upper Nile began to exhibit sparse vegetation cover associated with grassland mosaics. The overall extents of green vegetation were similar between the two years particularly towards the latter part of the month, although in 1997 the northern margins of the vegetation belt extended further. The amount of dense green vegetation was also greater by 6% in 1997.

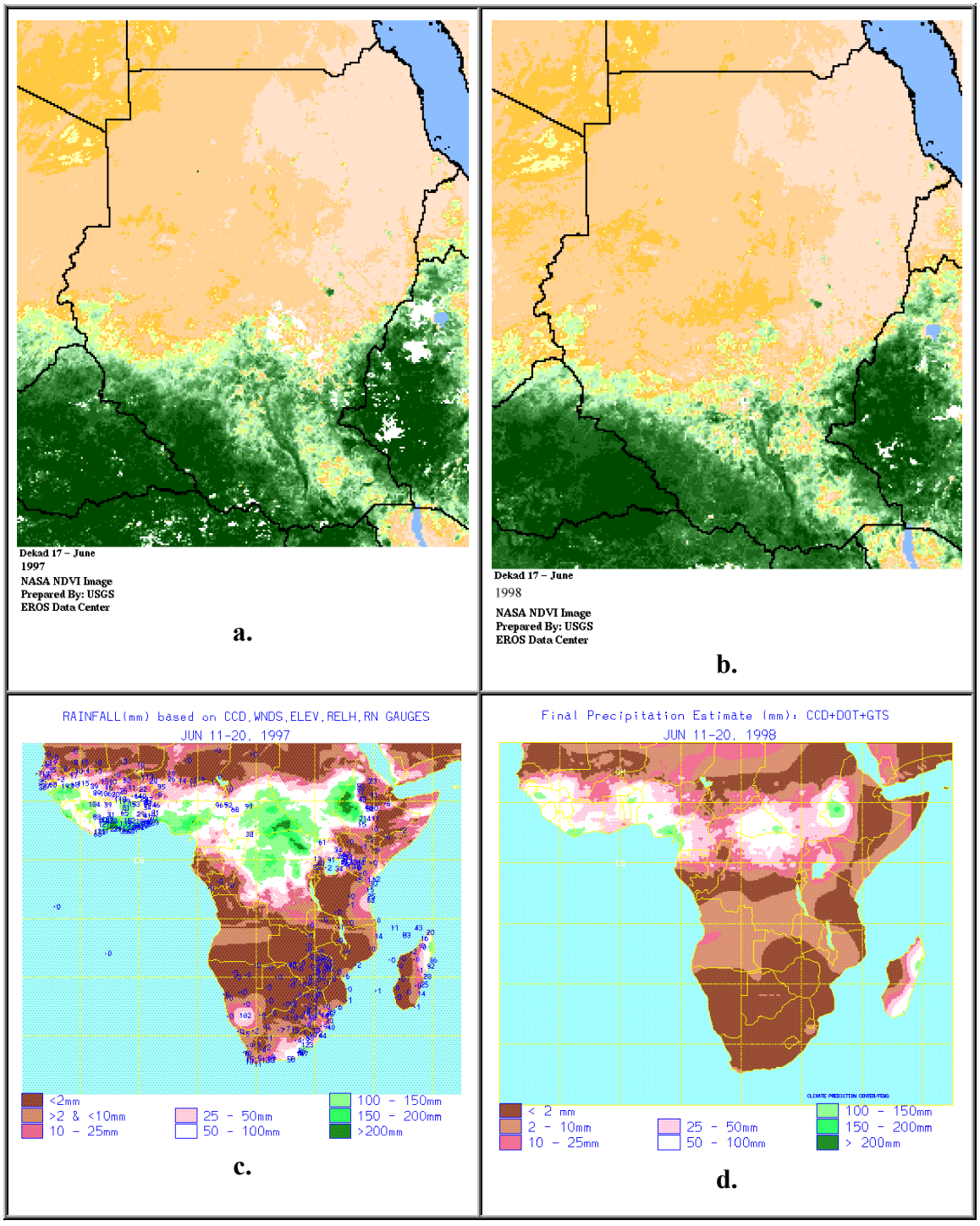
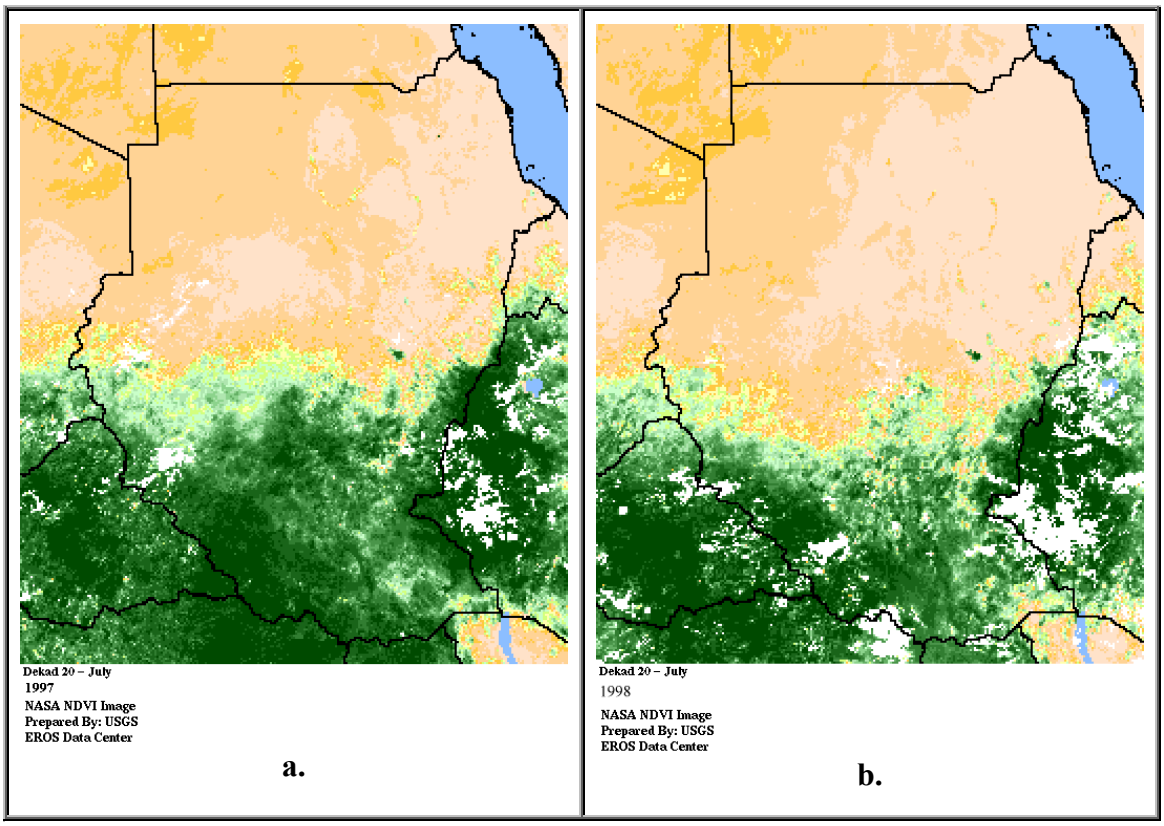


FIG 9 (a) NDVI for June 1997, (b) NDVI for June 1998, (c) Rainfall for continental Africa June 1997, (d) Rainfall for continental Africa June 1998 (FAO, 1999)

JULY:

In 1997 the distribution of vegetation cover throughout the month remained constant, although the density of cover increased within these areas. By the end of the month there was virtually continuous dense vegetation cover across the whole of the southern half of Sudan comprising 27% of vegetation cover. Density of the coverage was greatest indicating increased levels of

biomass and primary production in the south western woodland zone. The extreme south eastern corner of the country exhibited a pocket of less dense cover, which corresponds to an area of deciduous bushland. By the end of July 1997 the northerly spread of vegetation had increased to a longitude of approximately 14° north, which is broadly on a line with Al Fashir in the west of the country and Sannar in the east. During July 1998 there was an increase in areal percentage cover of vegetation, particularly dense vegetation to 27% of cover which corresponds to the extents of dense vegetation in 1997. The early part of the month still exhibited a fragmented vegetation cover, which increased in intensity to form a broadly homogenous block of vegetation across the south of the country by the end of the month. The overall extents of vegetation cover by the end of this month were similar in the southern states of the country, although in the central region, specifically the areas of Southern Darfur and South Kordofan, 1997 showed a more northerly progression of vegetated areas.



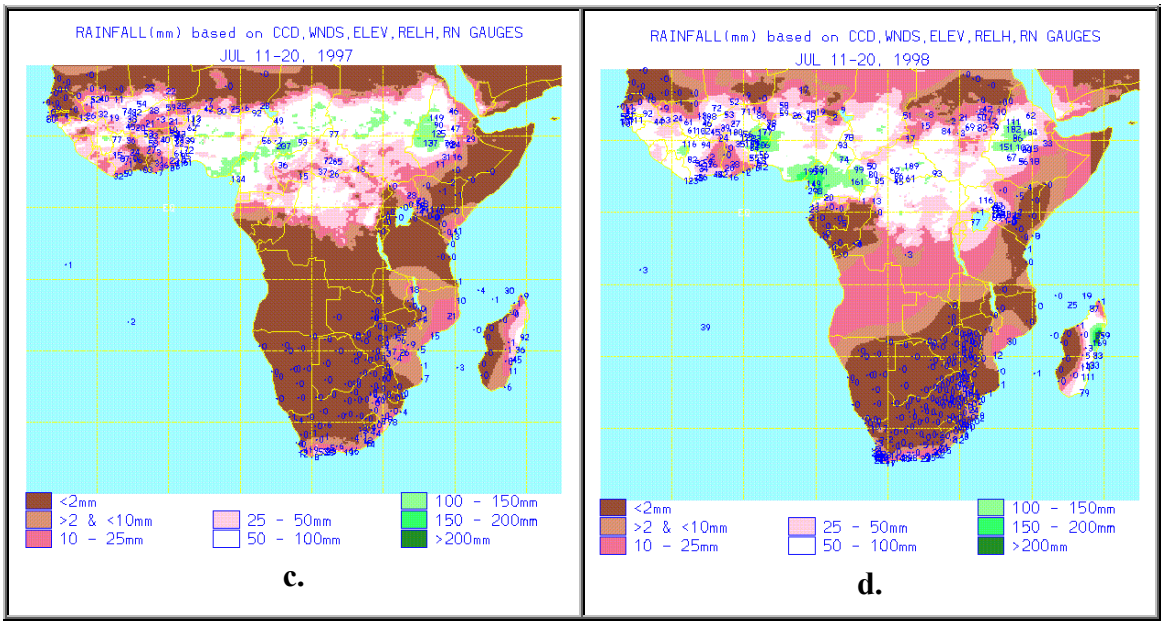


FIG 10 (a) NDVI for July 1997, (b) NDVI for July 1998, (c) Rainfall for continental Africa July 1997, (d) Rainfall for continental Africa July 1998 (FAO, 1999)

AUGUST:

The beginning of August 1997 exhibited a decrease in the level of dense biomass throughout the southern part of Sudan. However, this fragmentation of strong vegetation response was reversed during the latter part of the month when vegetation cover reached maximum areal distribution, extending to 15° north, and maximum levels of intensity. The areas of dense green vegetation at the end of August 1997 correspond largely to the zones of woodland in the south west and centre of the country, and the transitional zone of woodland to bushland along the Ethiopian border. Considerable increases in vegetation cover occurred particularly in the central area of the country in the Blue Nile, Upper Nile and Kordofan provinces, whilst a pocket of sparse vegetation persisted in the extreme south east of the East Equatoria province along the Kenyan border. The same period in 1998 also experienced a continued northerly progression of vegetation cover together with an increase in dense biomass response. However, the distribution of the densest category of vegetation was more widespread and homogenous during 1997 at 31% of surface cover, in contrast to the fragmented occurrence of dense biomass in 1998 (21% of surface cover).

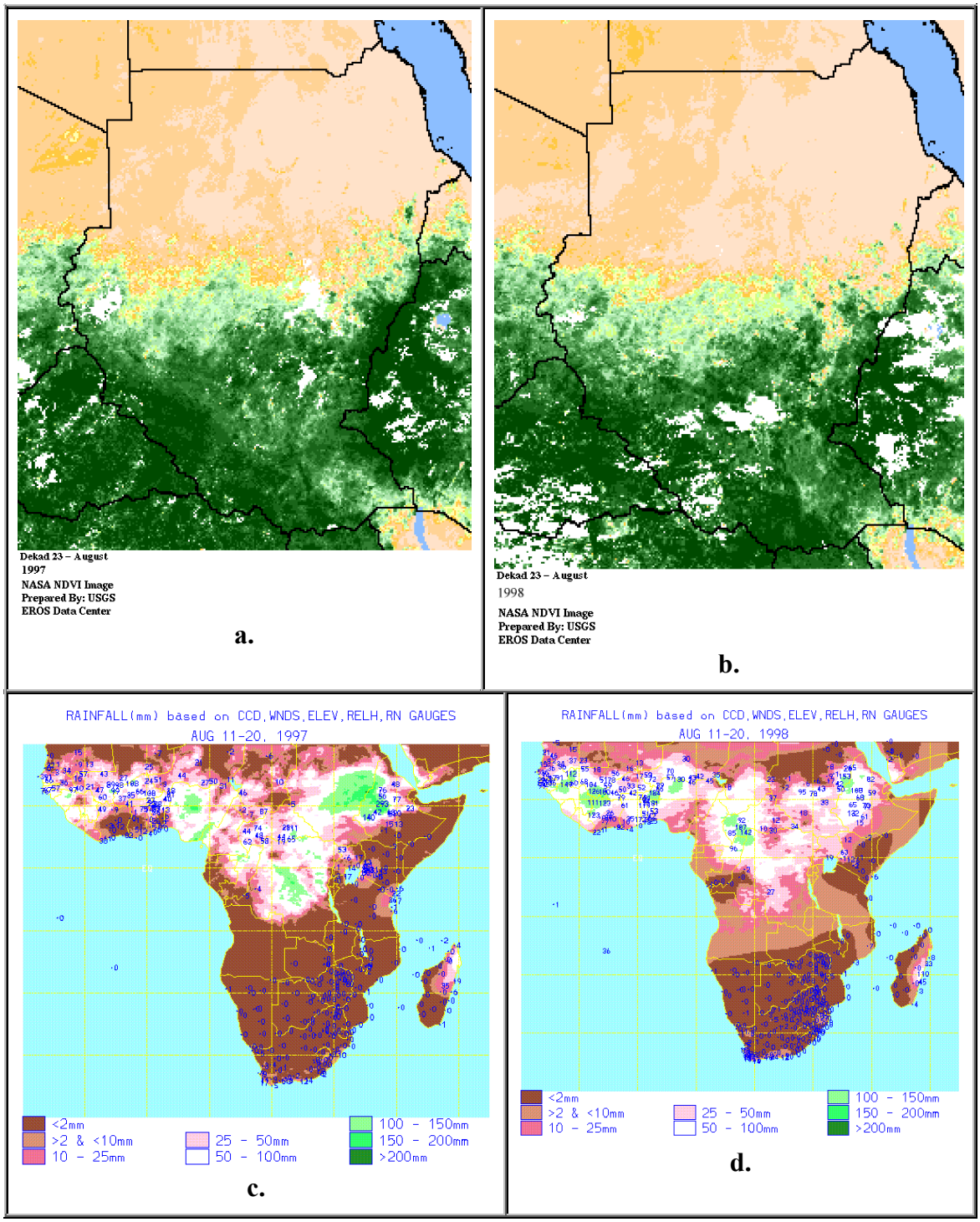
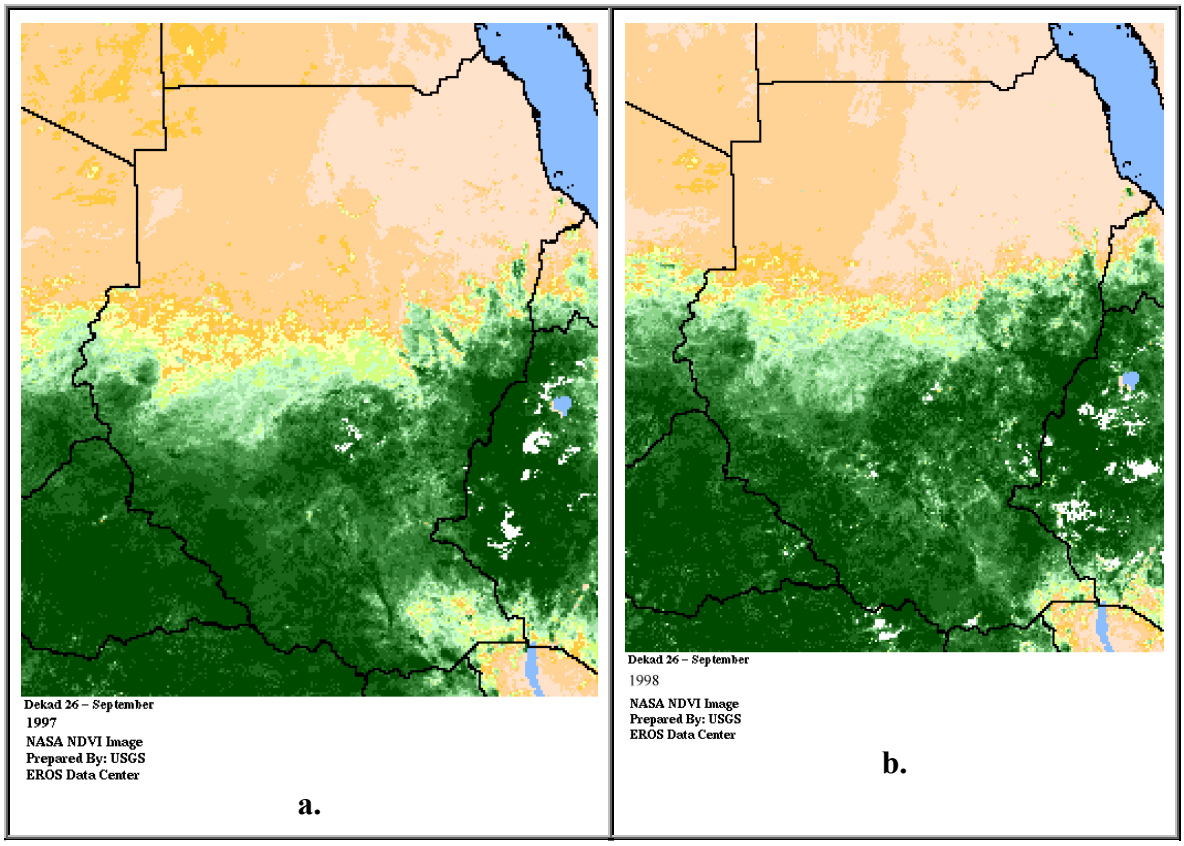


FIG 11 (a) NDVI for August 1997, (b) NDVI for August 1998, (c) Rainfall for continental Africa August 1997, (d) Rainfall for continental Africa August 1998 (FAO, 1999)

SEPTEMBER:

The amounts of green biomass remained stable during the beginning of September 1997 with little variation in percentage cover or intensity. A slight contraction of the northern extents of the vegetation belt occurred towards the end of the month as well as a progression north westwards of the pocket of sparse vegetation along the Kenyan border. The overall area of vegetation cover

in September 1998 remained consistent throughout the month whilst a slight increase in the amount of dense biomass occurred. The regions in the south west, central and along the Ethiopian border continued to exhibit dense vegetation responses although there was a slight reduction in the level of green vegetation activity in the south western zone of woodland. In comparison, September 1998 exhibited greater density of vegetation than the corresponding period in the previous year, most notably towards the end of the month. At this time the belt of woodland vegetation along the borders of the DR Congo and Central African Republic were beginning to diminish in 1997 and the northerly extents of the annual vegetation wave retreating. This month experienced the peak of dense vegetation in the middle to the end of September 1998, comprising 35% of surface cover, and reaching 15° north in areal extents.



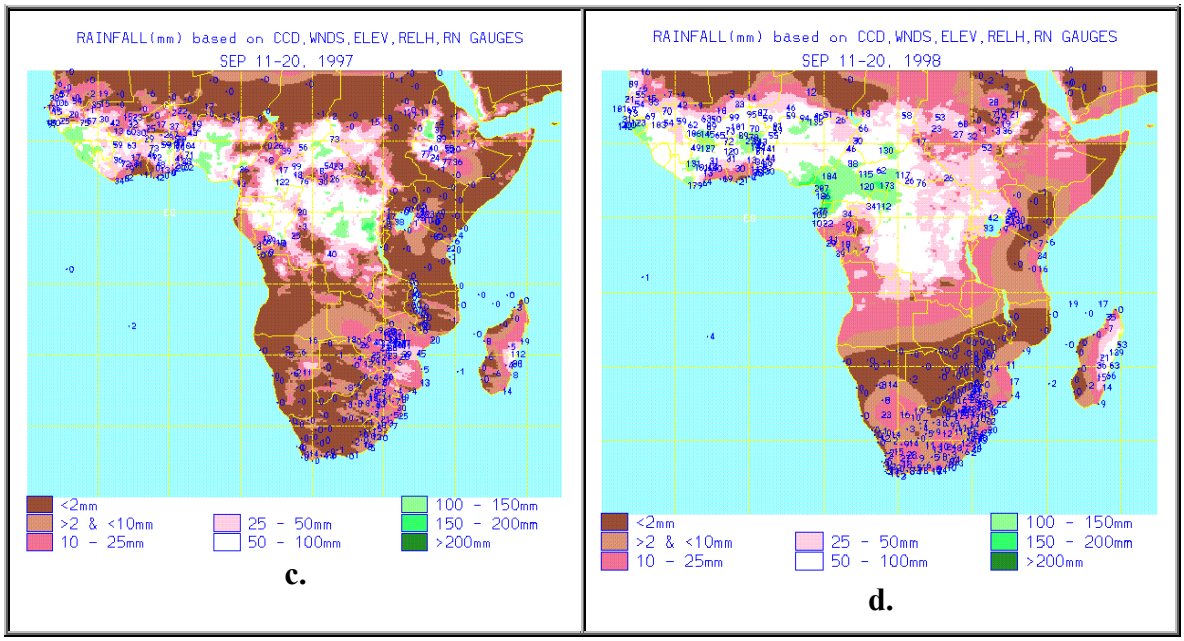


FIG 12 (a) NDVI for September 1997, (b) NDVI for September 1998, (c) Rainfall for continental Africa September 1997, (d) Rainfall for continental Africa September 1998 (FAO, 1999)

OCTOBER:

By the end of October 1997 there was a considerable decrease in the level of green vegetation cover and contraction of areal extents to 10° north, on a line with Malakal. Areas of densest vegetation cover became increasingly confined to the channel of the Upper Nile and the borders with the DR Congo and CAR. Areas in the south west of the country, in the zone of grassland mosaic, which exhibited moderate vegetation responses early in the month began to fragment towards the end of the month. In 1998 the distribution of vegetation cover remained stable, with little or no contraction of the northerly extents. In the southern part of the country the level of green vegetation activity diminished slightly during the month, most notably in the south west and east of the country. Comparison of the two years indicates a significantly greater intensity and coverage of vegetation in 1998 especially towards the end of the month. Comparison of the cover of dense vegetation showed an 8% variation between the two years with 1998 having 33% and 1997 25%. The vegetation cover in 1997 was patchy in comparison to the homogenous block shown in 1998 with vegetation associated with the channel of the River Nile clearly visible in the former year.

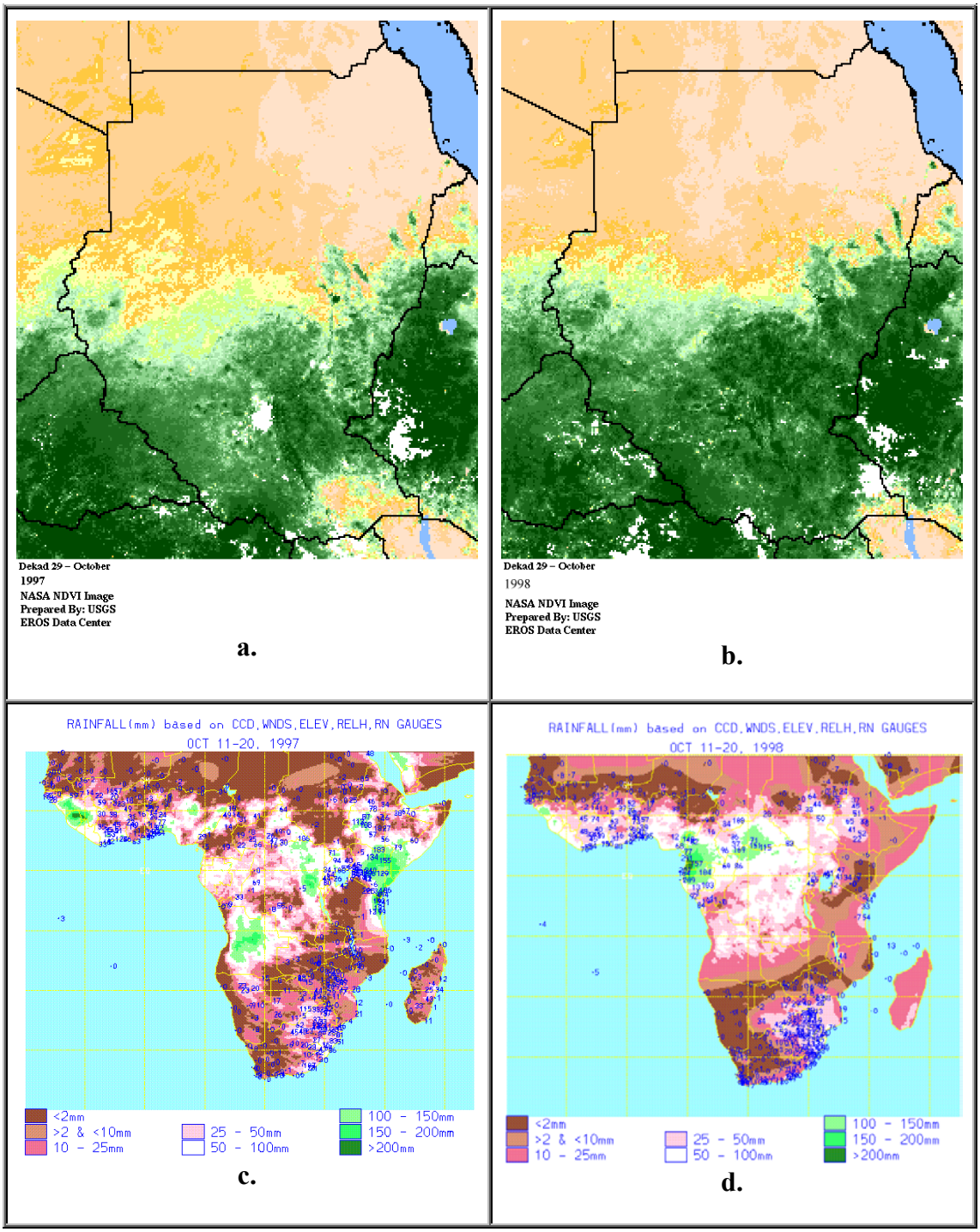


FIG 13 (a) NDVI for October 1997, (b) NDVI for October 1998, (c) Rainfall for continental Africa October 1997, (d) Rainfall for continental Africa October 1998 (FAO, 1999)

NOVEMBER:

During November 1997 there was continued fragmentation in the south west and the northern margins of vegetation, which broadly corresponds to the zone of woodland. Areas in the south east exhibited the greatest responses with contraction of the region of sparse vegetation along the Kenyan border. In 1998 the homogenous block of vegetation cover present at the beginning of the month gradually dissipated. The northerly margins contracted and a corridor of sparse

vegetation, extending north west from the Upper Nile headwaters into the provinces of West Equatoria, El Buheyrat and Bahr el Ghazal, was evident. In comparison, 1998 showed a significantly increased amount of active vegetation than 1997 with dense vegetation comprising 26% of cover in 1998 and 15% in 1997. Areal amounts of cover were greater in 1998 and less patchy although towards the end of the month there were less differences, especially in the south east of the country. The region along the south western borders of DR Congo and CAR showed a greater response in 1998.

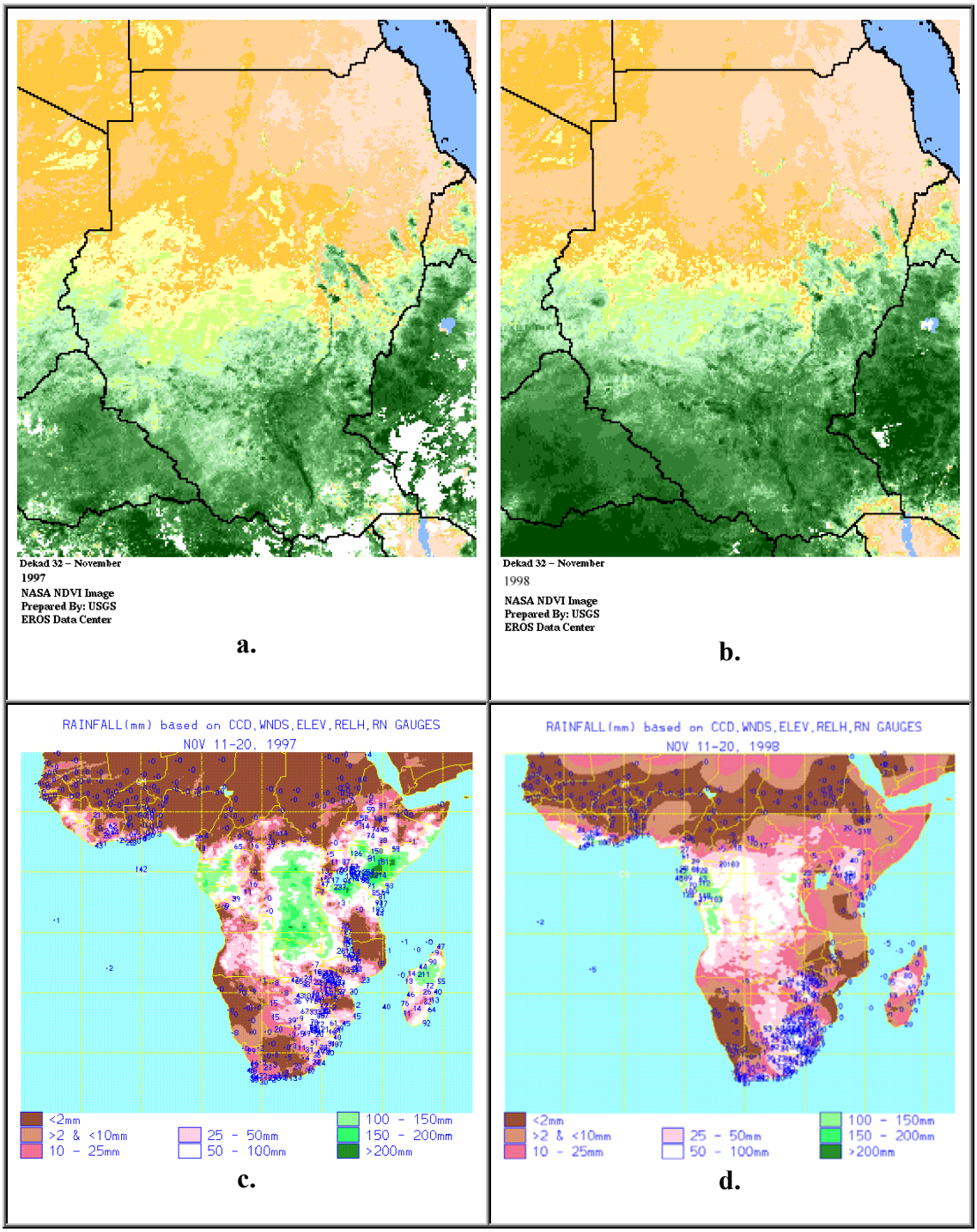
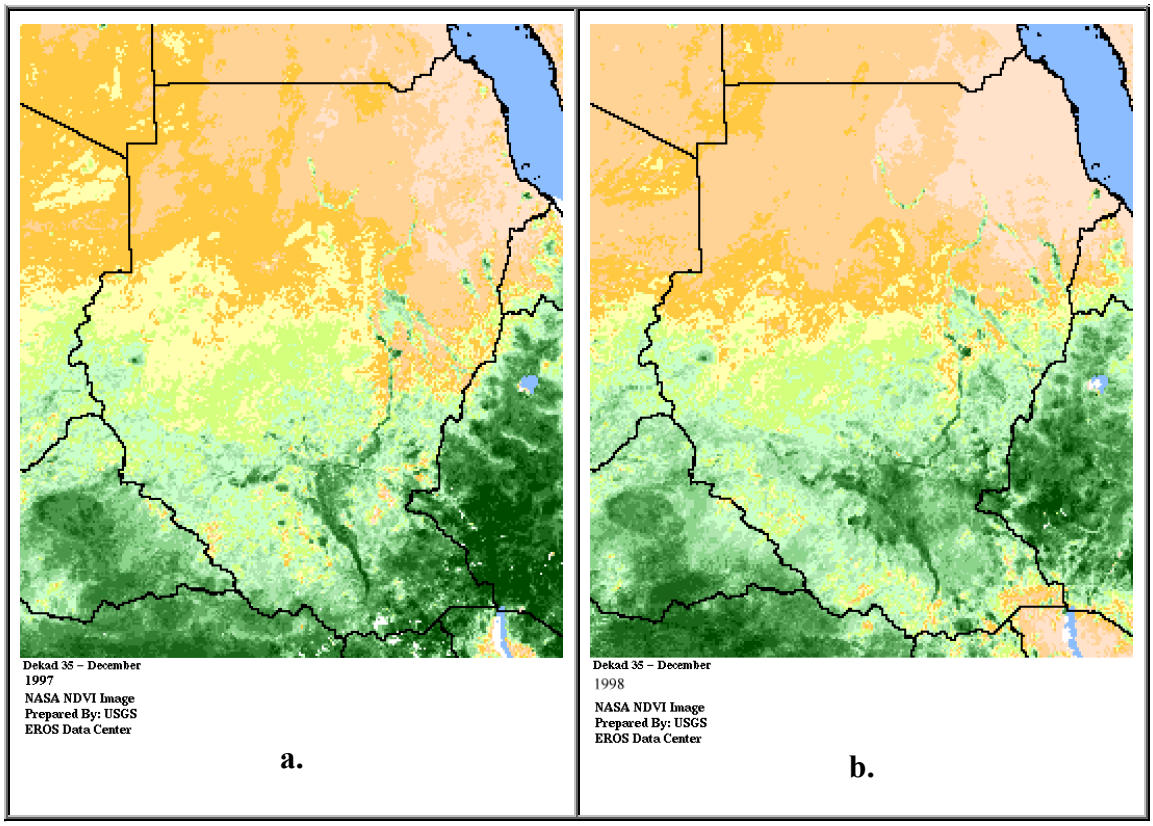


FIG 14 (a) NDVI for November 1997, (b) NDVI for November 1998, (c) Rainfall for continental Africa November 1997, (d) Rainfall for continental Africa November 1998 (FAO, 1999)

DECEMBER:

In 1997 the area of strongest vegetation response was confined to the Upper Nile channel and the south east of the country. Towards the latter part of the month the amount of active vegetation remained stable whilst in 1998 the amount of vegetation decreased considerably through the month. Areas of high vegetation response in 1998 were confined to the Upper Nile whilst in 1997 a pocket of high response existed in the south east along the borders of Ethiopia, Kenya and Uganda. The overall extent of dense vegetation in percentage terms was equal at 12% in both 1997 and 1998, which indicates a greater decrease in vegetation intensity between November and December in 1998.



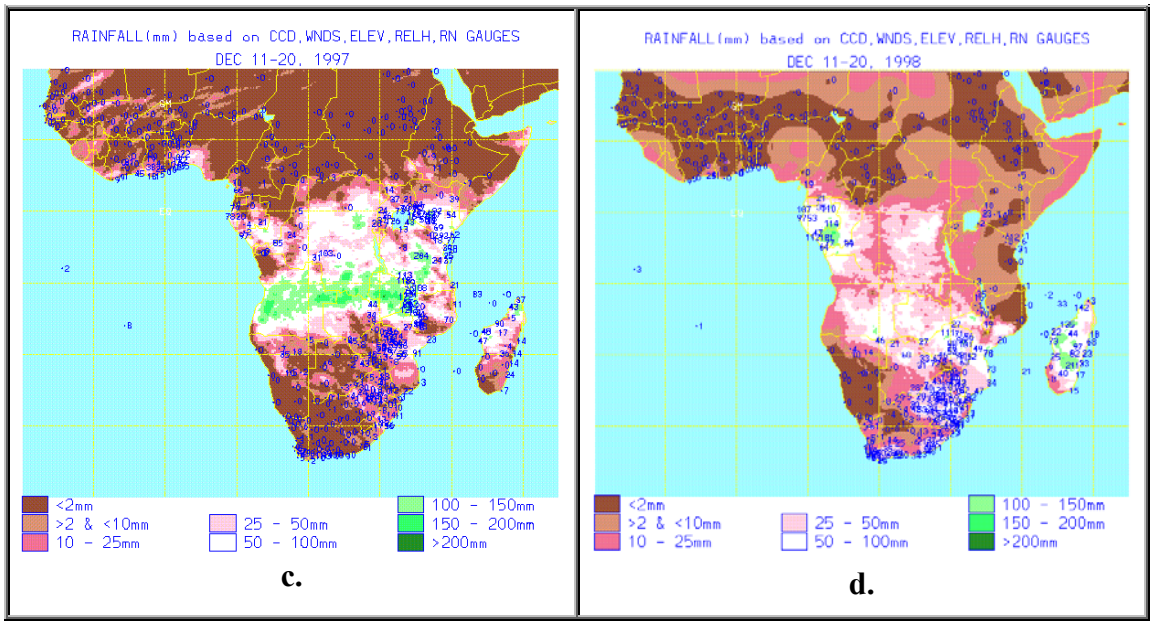


FIG 15 (a) NDVI for December 1997, (b) NDVI for December 1998, (c) Rainfall for continental Africa December 1997, (d) Rainfall for continental Africa December 1998 (FAO, 1999)

Summary

Analysis of the NDVI images has indicated there was a significant difference in the timing of phenological events and patterns in the Sudan during 1997 and 1998. This is illustrated by data derived from the images and displayed in Figs. 16 & 17, and Table 1. The main points apparent from the analysis can be summarised as follows:

Although 1998 began in a similar way to 1997, after the end of March the phenological timing of vegetation development displayed a one month lag in 1998.

The months exhibiting the greatest overall differences were May, November and December, whilst February and April were the most similar.

The peaks of dense vegetation were different in the two years. In 1997 dense vegetation reached a maximum at the end of August, however, in 1998 a comparable maximum was not reached until the end of September. The maximum northerly progression of the vegetation belt is associated with the peaks for each year.

The 1997 peak of dense vegetation cover was more protracted than in 1998, which quickly dropped away to a far lower area than 1997 by the end of the year. At this time moderate vegetation accounted for 34% of all covers in 1998 compared to 15-18% in 1997. The dense and moderate vegetation categories exhibited a less spasmodic trend in 1998 indicating the possibility of more consistent environmental and climatic conditions.

Between May and July 1998 there was less dense vegetation cover than in 1997, however, later in the year the situation was reversed and there was more dense vegetation in October to November 1998.

In 1997 there was a large increase (10%) in dense vegetation between the beginning of April and the beginning of May.

With the exception of January and March, 1998 exhibited a consistently greater area of desert and bare soil than 1997, particularly in the period of May to September. This was balanced by a lower coverage of sparse vegetation during 1998.

In a country within the region of the Intertropical Convergence Zone (ITCZ), it seems probable that these patterns of response are as a direct result of the availability of water for primary production.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bare Soil/Desert	-3	0	-6	1	21	1	8	5	2	1	7	11
Very Sparse Vegetation	-3	-2	4	2	-14	5	0	0	-4	-6	-11	-13
Sparse Vegetation	0	-1	0	0	0	1	0	0	-1	-1	-1	-1
Light Vegetation	-1	-1	-2	-1	-1	-1	0	-1	0	-2	-2	6
Moderate Vegetation	2	1	1	1	-1	-1	-2	0	1	-1	2	1
Dense Vegetation	4	2	2	0	-4	-5	-5	-3	0	4	4	-3
Very Dense Vegetation	1	0	1	-1	0	1	-2	-1	0	4	2	-1
Water	0	0	0	0	0	0	0	0	0	0	0	0
Cloud	0	0	0	-1	0	-1	1	0	2	0	-1	0

Table 1. 1998 Minus 1997 Percentage NDVI Classes

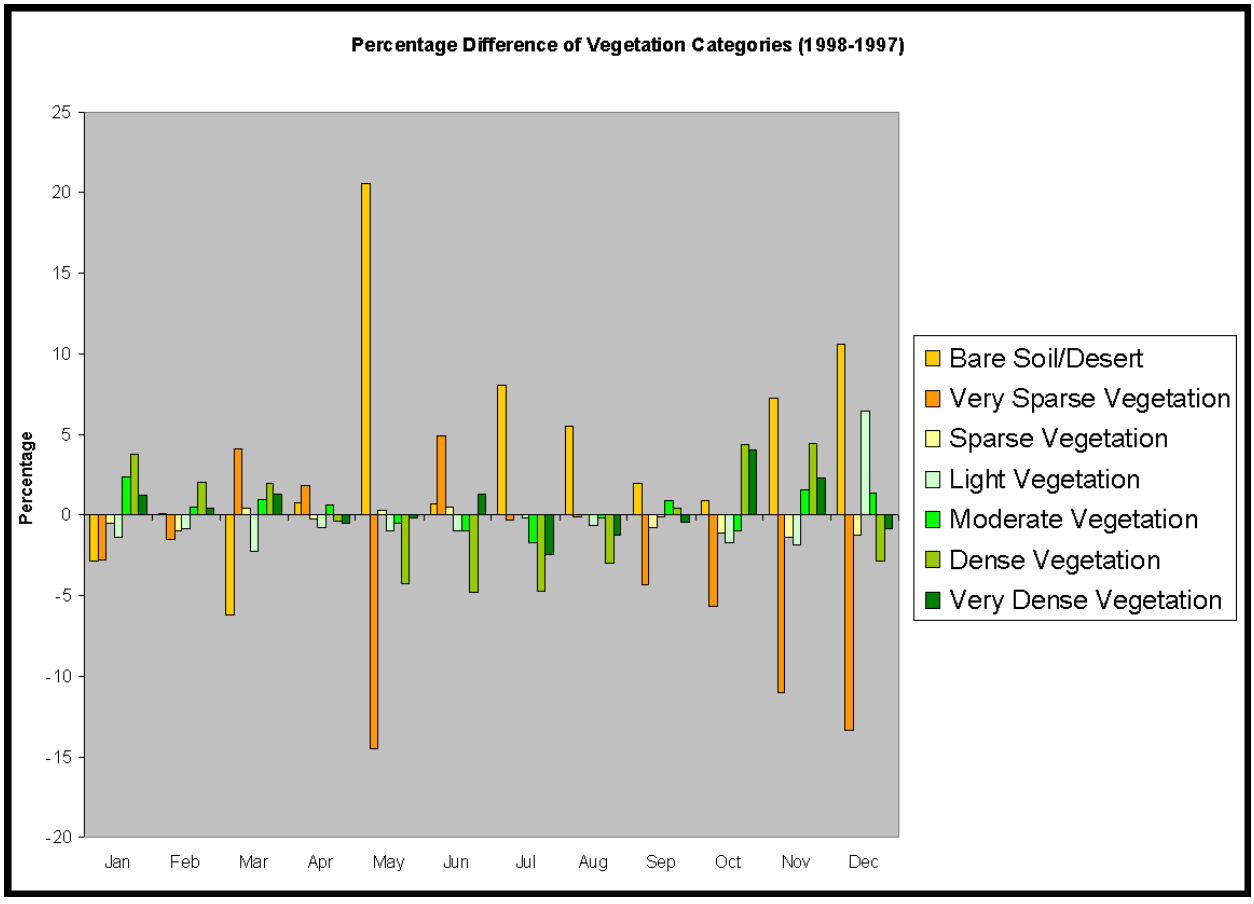


Fig 16 1998 Minus 1997 Percentage NDVI Classes derived from Table1

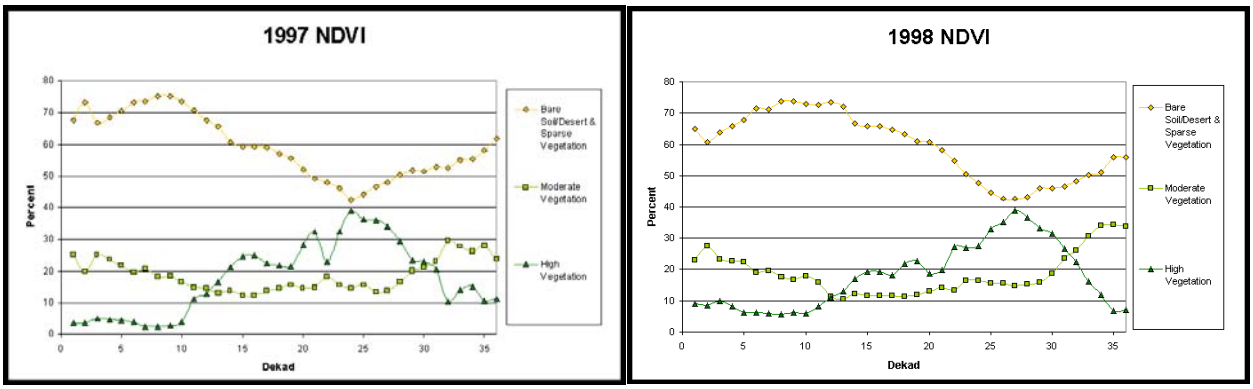


FIG 17 Changes in NDVI classes in 1997 and 1998

This analysis has shown that seasonal vegetation development in Sudan during 1997 and 1998 was very different, particularly after March when 1998 continued to have a larger area covered by bare soil and desert than 1997. The amount of dense vegetation cover in 1998 did not become significant until the beginning of August, whereas in 1997 dense vegetation had developed by the middle of May. The maximum amount and northern extent of dense vegetation was reached at the end of August in 1997, however in 1998 this maximum was not reached until a month later. In 1998 the area of most vegetation classes remained fairly stable after the September maximum until the middle of November whilst 1997 exhibited a more prolonged but inconsistent decline in most vegetation groups after the August maximum.

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Annex 7 Activities of Individual Agencies

British Red Cross

In emergency situations, the British Red Cross, like other national societies, donates funds to ICRC as implementor. ICRC has been in Sudan since 1978. Field activities by expatriates were suspended between 1996 and May 1998.

From the 1st June 1998, ICRC planned 14 field assessments and their 48-hour plan was to be based on these assessments. ICRC intended to concentrate their activities on medical and non-food interventions, but was willing to set up feeding centres if necessary.

Ten sites had been assessed by the time of the four-week plan. Pockets of intense need had been found, especially Wau and Bahr el Ghazal with up to 73 per cent severely malnourished children. At this stage, their intention was to develop a 20 site long-term programme. An update of their four-week plan developed their strategy of "filling gaps" both geographically and sectorally. The total ICRC budget for Sudan in 1998 was UK £ 12.4 million. The UK £ 1 million allocated by DEC was to be spent in Tonj County and Wau Town. Between August and November up to 2,000 Internally Displaced People (IDPs) per day were entering Wau Town in a deplorable condition. Some were classified as "too weak to stand".

ICRC expenditure of DEC monies in Wau and Tonj were:

UK £ 379,796	Blankets etc; water and sanitation; clothing; other non-food
UK £ 316,629	Transport
UK £ 241,228	Expatriate staff
UK £ 87,719	Support to Sudanese Red Crescent
UK £ 20,190	Management support to BRCS

Though this had not been originally intended, ICRC, in addition to its own kitchens for 2,847 adults and feeding centre for 853 children and 221 accompanying adults in Tonj, provided 173 tonnes of high-energy BP5 biscuits to MSF (B) and MSF (N) in six of their therapeutic feeding centres.

In Wau, three ICRC kitchens served 1,400 meals daily, with medical care to 1,500 people per week. The Sudanese Red Crescent Society (SRCS) supplementary and therapeutic feeding centres were given material and logistical support. Construction of 1,000 shelters was completed in Western Bank for extremely vulnerable IDPs. Kits containing a kitchen set, clothing material, mosquito net, two blankets, soap and one tarpaulin were distributed to 6,500 households. Donations of 2,500 blankets were given to MSF for the civilian hospital and 200 Kangas to SCF.UK.

CAFOD

CAFOD has supported work in Sudan since the early 1970s. From 1984 it has acted as liaison agency for the Caritas network and has been the facilitating agency for a church consortium. CAFOD is not an implementing agency but is part of a wider church network.

CAFOD's 48-hour plan of action was threefold, namely to support:

- Activities in Rumbek and Yirol counties (55,000 IDPs);
- Serious food shortages in Eastern Equitoria (96,000 IDPs); and
- Southern Blue Nile – pockets of high malnutrition (100,000 IDPs).

Priority needs were identified as food, domestic utensils for IDPs, seeds and tools. Partnerships exist with three dioceses (Torit, Rumbek and El Obeid) as well as a church consortium. The focus of the four-week plan of action was Rumbek where, by the time of submission, there were 147,500 estimated IDPs. Beneficiaries identified at the four missions of Marial Lou, Rumbek, Mapuordit and Agangtial were 60,600, 55,000, 21,400 and 12,500 respectively. The focus of the intervention was elderly, sick and lactating mothers supplementary feeding, school wet feeding programmes, family dry rations on a weekly basis and hospital feeding of TB and leprosy patients. Like Christian Aid, CAFOD beneficiaries are identified through the church structure.

Expenditure totalled UK £ 147,430 and UK £ 142,830 on transport and food purchases respectively. Food purchases covered the full food basket including UNIMIX, high-energy

biscuits, oil and salt. The six-month narrative report shows a close relationship between planned and executed programmes although the number of beneficiaries, especially in the school feeding programme, grew.

The project planning process was clear. The movement from the 48-hour plan of action to the four-week plan of action saw a narrowing of the target area, to the Diocese of Rumbek. Projects were appropriate, not least because they were community-focused. Working through a church consortium, and private charter, meant some logistical problems and a lack of formal storage capacity, at both Lokichoggio and on site, was a handicap. Value-added and long-term relevance were provided by the strengthening of community ties, although mission personnel indicated that the focus on relief distribution, through 1998, had reduced the time to do missionary, including evangelical, work.

CARE International (UK)

CARE, a non-sectarian agency, has been operative in Sudan since the early 1980s and was involved in mid-1998 in Khartoum (water/sanitation and health) and Kordafan (water, health, supplementary and therapeutic feeding). During March 1998, CARE had carried out a needs survey in Unity State and found malnutrition rates of 54 per cent in some areas. In April, therefore, they started a programme of therapeutic and supplementary feeding in three towns (Bentiu, Rabkona and Mayoum) for displaced people. In the 48-hour plan, CARE proposed to extend this existing programme with sanitation and an extended health programme. To help recovery and avoid future famine, they also planned to distribute seeds and tools.

The four-week plan of action was more extensive and included not only the 21,000 IDPs in Unity State, but also a programme of seeds and tools, displacement kits, shelters and health service for IDPs in Tambura County (Western Equitoria). This plan was based on a three-day rapid field assessment in late May, as was a planned intervention in Southern Bor County - again providing seeds and tools for IDPs. All three plans were for areas in which CARE had been operational previously.

Ultimately, CARE used DEC monies to deliver five programmes, responding to developments in the emergency from May through to August 1998. First, in response to a

request by WFP to (I)NGOs for help in logistics, CARE provided a consultant and nutritionist to make recommendations for a strategic response to feeding needs in northern Bahr el Ghazal. CARE also seconded five staff for three months to WFP in Lokichoggio to help logistics.

Second, CARE carried out the planned seeds and tools distribution in Tambura, with some of the seeds purchased locally. CARE also provided general food rations. The DEC allowed the transfer of some unused displacement kits (blankets, mosquito nets, cooking equipment, plastic sheets) from Bor.

Third, in the region's worst recorded floods, displaced people in Bor country on the Nile floodplain (The Toic), were provided with tools, four tonnes of seeds, fishing kits for 500 families and displacements kits for 588 families. Boats were purchased to transport people and goods across what was, for some months, a lake. Flooding of airstrips added greatly to practical problems of access.

Fourth, the project in Unity State focused on sanitation – in view of its effect on health. CARE carried out a health education programme, using role-play, songs and diagrams and with bars of soap as an incentive to attend, to stress the need to use latrines. Four hundred latrines were constructed and widely used by the community. Usage rates rose from 20 per cent to 80 per cent.

Fifth, a July assessment showed catastrophic conditions in Wau Town with 72,000 destitute people that lead to CARE responding quickly to the appalling conditions although this was not in their original four-week plan. Children and adults were dying in the streets. The UNICEF survey conducted in August indicated a 56% global malnutrition rate among under 5's with this elevated to 72% in the IDP population of children under 5 years. The DEC funds together with other CARE funds were used to respond to this crisis. CARE responded by providing food and non-food items including the construction of shelters for 1,450 households and by providing wet feeding for up to 9,000 moderate/severe malnourished adults and adolescents per day (BMI < 17 and >13). The severely malnourished were transferred to the MSF therapeutic feeding centre.

Christian Aid

Christian Aid has worked in both northern and southern Sudan for some three decades. It was conscious that, although the size of the catastrophe was unquantifiable, the scale of need was beyond the capacity for all. Their plans were determined primarily by their main church partners namely the Sudan Council of Churches and, after 1990, the New Sudan Council of Churches in the south. It worked in the south through a church consortium and saw its role as facilitation not direct implementation.

In its four week plan of action, Christian Aid outlined its work for the non-GoS Nuba Mountains, Twic County (Bahr el Ghazal) where it relied on its local partner, Supraid, for an assessment statement of 160,000 children vulnerable to famine, Eastern Equatoria (Diocese of Torit), Eastern Upper Nile, East Mundi, Southern Blue Nile and southern Bahr el Ghazal. Although noting the increasing recognition of Northern Bahr el Ghazal as the epicentre of the famine, Christian Aid sought to use the funds in a long-term relief, rehabilitation, development continuum that it planned through to 2000. It also wished the DEC to act as a forum for shared information.

It argued that by using local partnerships (a church consortium, NRRDS, Sudan Production Aid, MRDA, PRDA and the Diocese of Torit) and by working through church groups, it was closer to the beneficiaries than most other agencies. Its programme delivery is outlined in Table 1.

The dominant element of Christian Aid's budget was transport upon which some UK £265,000 was spent. Food and shelter purchase, together with household kits, came to almost UK £ 150,000. The project planning was as precise as could be expected and, with the exception of an absence of DEC fund dispersal in Southern Blue Nile, delivery matched indicative plans. As a facilitator, Christian Aid used funds to assist partners with a strong emphasis on reaching beneficiaries outside the OLS framework (Nuba Mountains), on bridging the hunger gap before harvest (Diocese of Torit, southern Bahr El Ghazal) and

providing shelter kits for displaced households. Above all, it facilitated transport and logistics to partner agencies.

Table 1 – Delivery Programme of Christian Aid

AREA	TARGET POPULATION	PROJECT	CA's CONTRIBUTION
Nuba Mountains	20,000	13.5 Mt food	Airlift costs
Twic County	4,000 households	Shelter kits	Purchase and transport of kits
Diocese of Torit	1,600 households	Food aid ration	Purchase and transport
Eastern Upper Nile	?	Fishing equipment	Airlift costs
Eastern Mundi	3,000	Food aid ration	Purchase and transport
Southern Blue Nile	--	--	--
Southern Bahr el Ghazal	42,000	Food and seeds (25% monthly need)	Purchase
Regional Capacity	--	A church consortium support at Lokichoggio	Salary and other costs

The project was appropriate as Christian Aid used DEC monies to address gaps in provision and to facilitate effective and efficient delivery of partnership programmes. Value-added lay in providing directly to beneficiaries who shared their belief framework and in providing an additional route structure to OLS southern sector. There was ample evidence of monitoring to ascertain beneficiary impact and indications of a willingness to train local partners. Interventions had long term relevance in that, by avoiding unnecessary direct relief activities, Christian Aid was able to push programme format towards rehabilitation where possible.

Concern Worldwide

Concern was active in Sudan from 1988-94. In deciding to re-establish a field presence in 1998, it recognised that ongoing conflict, coupled with poor harvests, had produced a patchy vulnerability where local dynamics were precipitating similar outcomes namely internal displacement and migration, asset loss, reduced labour and trade opportunities and stressed kinship relationships. In assessment missions, in May 1998, Concern recognised Bahr el

Ghazal was the area of most acute need with the lowest recovery capacity. Other areas of need were Upper Nile, Eastern Equatoria and the Nuba Mountains. In drafting the 48-hour plan of action, Concern adopted a strategic approach to support existing OLS agencies in the provision of seeds and tools by providing personnel to WFP and UNICEF, combined with emergency interventions identified by local authorities. The focus of intervention was to provide seed immediately and food for the "hunger period" of cultivation.

The four-week plan of action was prefaced with a description of activities to date including local food purchases in Yei county that was bartered with Norwegian People's Aid (NPA) for local release in return for food released from Lokichoggio for delivery to the Nuba Mountains. Additionally, Concern staff were seconded to WFP and UNICEF as field monitors. The four-week plan of action assesses likely scenarios, emphasising that conflict has produced a food insecurity situation of a magnitude not seen since the 1988 famine. Livelihood resilience continued to deteriorate, demonstrated by an increase in the severity and duration of the hunger gap, changes in dietary patterns, slaughtering of key cattle assets and the increasing prevalence of malnutrition. Yirol and Aweil West counties were to be the focus of intervention. In Yirol, evidence showed local reliance on wild foods, largely because of drought conditions with relief need likely to increase significantly. Security was reasonable, few (I)NGOs were operational and SRRA accepted the need for capacity building to re-establish Yirol as a food surplus area. In Aweil West, significant emergency needs were identified – caused by attacks and consequent displacement – here again there was poor coverage by (I)NGOs but there was, an opportunity for food production to support eastern Bahr el Ghazal. The outputs envisaged included sorghum and groundnut seeds, temporary shelter materials for displaced people, basic fishing gear and mosquito nets plus the establishment of a monitoring system. While addressing critical needs to re-establish the food economy, at a time of impending rain and planting season, the 48-hour plan stressed that, unless a general food ration was made available, famine would accelerate. The plan laid out a process of rapid assessment, logistics and distribution planning, distribution monitoring and links with partner agencies. Organograms of Concern staff responsibilities, and locations, as well as risk assessment, were included.

The six-month completion report showed actual against intended completion. Only fishing hooks in Aweil West were significantly beneath target (75 per cent achievement) although

this is to be remedied in 1999. Commenting on the beneficiaries, the report noted that customary distribution practices meant that "most vulnerable" groups were not always the primary targets. Seed had 80 per cent germination rates (serena sorghum, red beans and vegetables) although 20 per cent of the harvest was lost from flooding. Fishing gear, too, had a significant impact. Monitoring and evaluation evidence was gathered in five separate exercises and reports. Concern notes that the activities strengthened ties with SRRA.

Project planning was a model of good practice, following, but not limited by a logical framework structure. Rationale was analytically detailed and well argued indicating appropriate interventions. Implementation was timely and effective. Value added addressed the need to rebuild the local food economy and long term local relationships were established. Advocacy was directed towards ensuring OLS capacity to deliver a general food ration.

Help the Aged

HelpAge International (HAI) the implementing partner for Help the Aged has been operational in Sudan since 1985 initially in emergency and later in development. Prior to becoming operational in Juba the organisation was working in Khartoum and Kassala. Following an initial assessment in Juba in September 1997 the organisation identified needs among the elderly in the town. These needs included food, shelter, basic medical care, blankets, clothing and cooking utensils. In the following January a further assessment was completed. Plans were put in place and a project proposal was submitted to donors.

This led to HAI utilising DEC funds for the Juba based programme. From the start, there was a clear recognition of the lack of participation of older people in a garrison town livelihood system. Operating with guidelines of the Humanitarian Aid Commission (HAC) and the Combined Agencies Relief Team, HelpAge International set out to clearly identify beneficiaries according to age, marital status, health status, social status, access to social support and income on this database, individuals were then classed as extremely vulnerable, very vulnerable or vulnerable. Of some 8,500 beneficiaries some 2,500 were classed as extremely vulnerable.

The DEC monies were used to plan building 300 shelters. Due to many constraints working in the northern sector the commencement of the programme was behind schedule. The first issue involved organising visa and travel passes for the expatriate project co-ordinator causing a two months delay.

There were further delays especially in the actual building of the shelters, as this was a major resettlement requiring, beyond the six-month reporting limit of the DEC, wider consultation with the community. In particular, HelpAge International did not want resettlement to dislocate existing coping mechanisms. Improved access to health care was addressed through four workshops on health issues including one that was gender-age focused. The decision to build a separate health facility for older people was abandoned but the employment of a health promoter was added to help support and assist in the health care of these elderly beneficiaries. Central to improving access to health care was the decision to improve access to clean water and sanitation; existing boreholes were surveyed with the rehabilitation of seventeen. Twenty-five latrines were completed by mid-December. Household goods were distributed including blankets, clothes, utensils, and soaps. Six hundred sets of agricultural tools, for local vegetable gardens, were purchased.

The projects are highly appropriate for a set of clearly targeted beneficiaries. The non-completion of the four-week plan in the DEC six month operating period is not a failure since HelpAge International clearly had a participatory planning model that required careful reconsideration of initial proposals and has since completed the building programme. As this work was essentially rehabilitation in a garrison town, the cautious approach to project implementation is welcome. The evaluation saw completed resettlement with 280 tukuls finished and inhabited and latrine programme partially finished in February 1999. Despite delays in equipment procurement caused by flooding and transport disruption due to war related activities, in August and September, 1998 the programme although behind target was progressing well.

Logical framework presentation of planned goals and achievement is a model of good practice. The effectiveness and timeliness of the operation beyond the distribution of household goods, was essentially HelpAge International lobbying to provide access for a clearly defined group of elderly persons to relief food, including WFP's general ration.

Arrangement for delivery saw HelpAge International co-operating with a a number of other NGOs including Oxfam and ICRC. Value added is difficult to judge but the careful participatory planning indicates a willingness to long-term planning. HelpAge International was a successful advocate for displaced elderly.

MSF (UK)

MSF (UK) does not implement directly, but transfers funds to other members of MSF of which three are currently operating in Sudan: MSF (Belgium); MSF (Switzerland) and MSF (Holland). MSF (France) was no longer present. The MSF group has been working in south Sudan since 1988, mainly in the field of health, with a particular concern for kala azar, but also involved in supplementary and therapeutic feeding. In addition to medical interventions, MSF places a large emphasis on advocacy, drawing attention to violations of human rights.

The MSF 48-hour plan, dated 18th May, identifies two possible areas of intervention in which MSF is already operating: Bahr el Ghazal (MSF Belgium) and Western Upper Nile (MSF Holland). Of the two, most attention was given at this stage to Bahr el Ghazal where the suggestion was that the DEC allocation would support the existing nine MSF primary health care programmes in the fields of health, supplementary and therapeutic feeding and measles vaccination. "There is an urgent need for MSF to start new therapeutic feeding in Panthou, Ajiep and Thiekthou".

In view of what was known at the time about the severity of the emergency in that area and the fact that MSF was already present, this plan was well founded and indeed the fact that MSF Holland subsequently took over three feeding stations to help out MSF Belgium in that area indicates that such an intervention would have been appropriate at the time, particularly in view of the high mortality rates.

An update of the 48-hour plan dated 1st June 1998 switches emphasis to Western Upper Nile, where MSF had conducted a nutritional survey in Leer Town and nutritional assessments in Leer, Duar and Nimne regions. The random survey of 462 children in Leer, using weight for height data, showed global malnutrition of 32.5 per cent and severe malnutrition of 6.5 per cent. Both of these are catastrophically high. The other surveys, using MUAC data showed global malnutrition rates between 40 per cent and 60 per cent in Leer. The nutritional assessments also showed that food stocks were very low and that many people lacked seeds and tools.

In the four-week plan of action of 18th June 1998, MSF had decided to support the food seeds and tools programme in the Leer District of Western Upper Nile. In fact the distribution had started on1st June. MSF argued that Western Upper Nile had been neglected at the expense of the media focused Bahr el Ghazal. Western Upper Nile had suffered conflict at the end of 1997 and early 1998 so that nutritionally the people in the area were severely stressed at this time. Subsequently, MSF Holland was forced to close its operations in the area soon after the distributions because of insecurity, suggesting that the intervention was fortunately timed.

The distribution was carried out between 1st June and 15th July and was co-ordinated with WFP and UNICEF. Distributions of seeds and tools were timed to coincide with general food distributions so that people were less likely to eat the seeds intended for planting. DEC monies were used to purchase sorghum, maize and cowpea seeds for 14,500 families. MSF had to pay for transport by plane from Lokichoggio to supplement the WFP's limited transport capacity. Transport costs dominated the expenditure. The timing of the distribution would have been excellent if the rains had not been delayed planting.

This intervention, intended to provide the means of production and self-sustenance, should have encouraged longer-term recovery of nutritional status for the population. There were, however, four problems. First, the breakdown of security caused some of the people to move from their home area. Second, MSF was unable to check germination rates or the broader effectiveness of the programme, though, *prima facie*, it seems to have been well-founded. Third, the WFP-provided food ration is not adequate and does not reach the 2,100 kilocalories recommended by UN organisations and NGOs. Fourth, though MSF made a significant contribution to the seeds provided for the area, owing to the actual needs for the area being inaccurately represented in negotiations with UNICEF, the amount supplied was inadequate.

In response, MSF believe that their nutritional surveys have drawn attention to the acute need in an area which is remote from the perceived main centre of the famine in Bahr el Ghazal.

Merlin

Merlin is a medical relief agency for volunteer professionals and works during severe emergencies, handing over, when possible, to a successor agency. At the time of the appeal,

Merlin was working in Wajir, Kenya, on malaria and in Tambura, Sudan, on sleeping sickness.

Preparation of the 48-hour plan began with an information search to find a niche in emergency medical work such as therapeutic feeding or public health. In the four-week plan of 17th June, Merlin intended to work on Primary Health Care (PHC) in Yirol, with supplementary and therapeutic feeding. Yirol was proposed by OLS as a suitable site and OLS agreed to give membership of OLS to Merlin. An update on 19th August showed that Merlin had instead decided to start work in Adet, an area of severe need. Based on an initial survey of nutritional status, Merlin planned a centre for 2,000 supplementary and 100 therapeutic places, with the intention of serving under 5s. In fact, the expected number of patients did not arrive, possibly because they were attracted by the larger rations and extra allocations at nearby sites. Possibly the sampled population, near the airstrips, was atypical. Oxfam provided water and sanitation for the centre (20 litres per person day of water, and one latrine for 20 users).

The therapeutic feeding centre treated 84 people with a mortality rate of 2.8 per cent over the project lifetime and the temporary medical centre treated an average of 70 patients per day. When the number of malnourished children was seen to be low (one quarter of the anticipated) older children, adolescents and adults were admitted. Merlin anticipate that there may be a continuing need for feeding and medical care during 1999 because the harvests have been poor. The second planned feeding centre was not opened.

Oxfam (GB)

Oxfam has been active in Sudan during the whole existence of OLS, working in both GoS and SPLA controlled areas, with programmes in famine response and famine prevention.

The Oxfam 48-hour plan of 18th May 1998 proposed projects in both GoS and SPLA areas. The main emphasis was on food provision; general ration distribution; support to WFP; supplementary and therapeutic feeding; and water supply to complement food distribution. Famine prevention activities in agriculture and livestock were relatively less important. Oxfam intended to base its programmes on existing programmes and areas of activity. They

acknowledged the intensity of need in northern Bahr El Ghazal but argued that southern Bahr El Ghazal and the Lakes area also had major needs.

On 17th June 1998, the four-week plan was substantially similar to the 48 hour plan, but with additional information from field investigations. Oxfam was negotiating with OLS and WFP about ways of supporting those agencies' logistics and transport capacity using DEC funds - UK £ 500,000.

Proposed programmes in the southern sector:

1. Northern Bahr El Ghazal – emergency water and sanitation, supplementary SCF and World Vision activities. This would support the 22 WFP food distribution sites. UK £ 220,565.
2. Rumbek County – seeds and tools; support to CH workers, food monitors, animal health auxiliaries; veterinary services. UK £ 118,443.
3. Agangrial and Rumbek Town – supplementary and therapeutic feeding. UK £ 130,981.
4. Western Yirol – supplementary and therapeutic feeding. UK £ 114,209.
5. Northern and Eastern BEG – livestock/veterinary. UK £ 110,000.

Proposed programmes in the northern sector:

1. Terekeka – dry rations, supplementary feedings, seeds, blankets, and mosquito nets. UK £ 1,584,694.
2. Bentiu, Unity State – emergency water, sanitation, shelter. UK £ 46,420.
3. Ed D'aien, Southern Dafur – IDP emergency intervention, water, housing and cooking pots. UK £ 56,553.

There were twelve components to the final programme of which the main were:

Emergency water, Northern Bahr el Ghazal	UK £ 509,090
Supplementary feeding, Rumbek and Yirol	UK £ 501,990
Emergency food distribution, Terekeka	UK £ 405,329

Livestock emergency support, OLS	UK £ 161,863
Road repairs, Eldoret to Loki	UK £ 135,622
Emergency logistics support for Oxfam	UK £ 130,263

The large reduction in the cost of Terekeka programme in which food purchase and transport had been the dominant costs is notable. This was due to the local purchase of cereals from the Juba markets instead of purchase and transportation from other areas in Sudan. Delays to this programme were hampered by disputes between Oxfam and WFP over numbers of beneficiaries. Heavy rains in September caused roads to be impassable but Oxfam negotiated with WFP to transport food by barge from Juba. An eventual re-registration was conducted which was extremely difficult, particularly travelling to rural areas with security an issue and passes required from the authorities. This completed registration identified 31,000 beneficiaries out of a total population of 72,000, targeting women-headed households, children less than five years, old married women who were de facto heads of households and war displaced people. The target population was higher than the initial 4-week plan of 23,000 beneficiaries, thus a half ration was given rather than the original plan. The many delays lead to the food distributions commencing in November with a second distribution completed by the time of this evaluation. A further two distributions will continue in the next months, with the aim to prevent movement of populations prior to the planting for the next season. A nutritional survey carried out in January indicated the nutritional status of children under five years was extremely good with a global malnutrition rate of less than 6 per cent. The staff felt that the children of this age group were a poor reflection on the nutritional status of the community as a whole because children were given priority in the household food basket with many having access to milk.

Repairs to the Eldoret – Loki road within Kenya were a benefit to the whole OLS programme as well as the DEC elements. UK £ 40,463 was spent in expanding the hard standing at Lokichoggio airstrip. This was to facilitate rapid turnaround of the increased airfleet, to ensure two or three rotations per day and to maintain the condition of the goods stored ready for loading. Capacity at the airstrip had been a critical bottleneck in logistics.

Similarly, a food distribution modalities support person was appointed to allow better understanding of vulnerability in relation to food and to improve the effectiveness of general ration distribution (UK £ 9,824).

Oxfam was notable for its contribution to advocacy at various levels and in conjunctions with other (I)NGOs.

Save the Children (UK)

Save the Children (SCF) has worked continuously in north and south Sudan since 1979 and was a founder of OLS. SCF UK has been working in Northern Sudan since 1985, in South Darfur with southern displaced people since 1992 and in Wau since 1995. With a presence in Wau since 1995, SCF UK is the longest established (I)NGO in this area, and has a good understanding of the complexities in this region. The SCF UK development programme in Wau was mainly focused on education.

During the last decade, SCF has worked on food security, needs analysis, food distribution, water and health, for communities and IDPs/refugees, livelihood projects, seeds and tools, community survival kits and non-food items. During the last two years, SCF had spent UK £ 4.4 million each year in the Sudan.

In the 48-hour plan SCF suggested that the priority was to keep people in site by food, seeds/tools and non-food item distributions.

Specific proposed programmes were:

1. Wau town – non-food items;
2. Ed D'aien – support to IDPs;
3. Bahr el Ghazal – water for displaced; and
4. Additional resources would allow provision of survival kits, transport, fishing equipment, and provision of high-energy biscuits.

The mid-June four-week plan of action identifies non-food, non-medical items such as community survival kits as an SCF speciality, with a co-ordinating role in OLS. At this stage, the three action areas remained, but with elaboration of the programmes including details of provisions, targeting, monitoring and costing:

1.	South Sudan	443,000 (Bahr el Ghazal)
2.	North Sudan	528,000 (Ed D'aien and Wau Town)

An additional allocation of funds allowed the following expenditures:

Transport	UK £ 151,657	boat, trucks, 4WD
Support	UK £ 144,360	transport, staff, communciations
Community survival kits (3,000)	UK £ 173,821	
Emergency relief items &		
Supplementary food delivery	UK £ 72,754	separate items from kits
Food economy	UK £ 24,277	support to WFP
Seeds and tools delivery	UK £ 137,573	85,194 households
Total	UK £704,442	

North Sudan		
Displaced resettlement Ed D'aien	UK £ 117,976	
Unaccompanied children Ed D'aien	UK £ 45,304	many malnourished
Ed D'aien office costs	UK £ 41,032	
Aweil/Wau (emergency)	UK £ 132,781	non-food, food and medical water
Khartoum office	UK £ 25,196	
Total	UK £362,559	

In the northern sector SCF's Wau 4-week plan was revised, as other funding became available. Some of the funds were diverted from Wau to Aweil in response to needs there with a global malnutrition rate of 25 per cent. SCF was the only (I) NGO operating in this location. There were four components to this programme: selective feeding for malnourished children, non-food item distribution, material and rehabilitation support to the hospital and

some basic water and sanitation rehabilitation in Aweil town. In the 4-week plan funding was also requested for an emergency water project in Ed Daien, South Darfur. This was later cancelled as the project could not be completed within the DEC time frame of six months and funding was found from another source. The DEC funds were reallocated to the SCF South Sudan programme. The additional monies available for the southern sector were utilised in Bahr el Ghazal for the purchase of extra non-food items, support to the Food Economy Assessment Unit (WFP), emergency supplementary food delivery, distribution of seeds and tools and additional warehousing.

SCF has been involved with other (I)NGOs in advocacy for the peace process in Sudan.

Tearfund

Tearfund is a Christian agency, part of the Evangelical alliance of the UK, and has been active in Sudan since 1972, working through ACROSS, churches and Christian NGOs, which it supports through donations and staff secondment. More recently, Tearfund wished to gain experience of direct implementation. At the time of the 48 hour plan, Tearfund was assessing needs in Rumbek County with a view to opening a programme and then extending to other areas.

Following this needs assessment and discussion with locally active (I)NGOs, Tearfund has agreed to develop a programme in the Billing area, with supplementary feeding, possibly therapeutic feeding and hospital feeding. Tearfund also shipped 20 tonnes of seed for distribution as famine prevention. The feeding programme complements those run by an indigenous African NGO and IRC community based health programmes. It was intended to open the centre by late July. This intervention is planned on the basis of a consultant's report in mid-May and the co-ordinating activities of Rumbek County Joint Relief and Rehabilitation Committee.

Subsequently two further dry feeding supplementary feeding centres were set up in Rumbek Town (July) and Malualkon (north Bahr el Ghazal) in October. In Rumbek Town, Tearfund took over the running of the centre previously set up by Oxfam. By November the number being fed, which had reached about 1,600 in total, had started to fall. The Malualkon centre is

now carrying out a seeds and tools distribution programme. The use of mobile distribution to small centres was an interesting characteristic of Tearfund feeding methods and helped to maintain people in small settlements, close to their houses, saving women's time and energy, reducing the likelihood of disease and reducing friction, relating to women's absence, within households.

World Vision

World Vision has supported work in Sudan since 1972 and has been operational since the early 1980s. It was a founder member of OLS. Current working areas in May 1998 were Tory, Gogrial and Yambio counties and included a wide range of integrated activities.

As a 48-hour plan, World Vision planned to establish three or four new feeding centres with safe water supply, PHC, survival kits and work on food security.

World Vision conducted nutritional surveys in Tonj County in June showing global acute malnutrition rate of 30 – 35 per cent and severe malnutrition of 9 – 10 per cent, having also identified even more severe conditions in Gogrial County during April. Therefore in the four-week plan, four therapeutic feeding centres were to be opened, two in each county with associated water and health facilities. The targets were primarily malnourished adults. Each therapeutic feeding centre could deal with up to 500 children, though the norm is for a maximum of 100.

Luonyaker Therapeutic Feeding Centre was supported by DEC funds, with 915 registered children (though not all at the same time). The death rate was 2.1 per cent with highest figures in July and October. Defaults occurred from September. The therapeutic centre closed in December. Supplementary feeding continued. In September the peak number of supplementary feeding of 900 was reached.

Because DEC funding was insufficient, other sources of funding was used for PHC and health/hygiene education. In conjunction with UNICEF, WV fed 60 – 70 unaccompanied children in the therapeutic feeding centre.

World Vision was successful in raising awareness of the developing famine emergency.