

CHANGES AND POTENTIAL RESILIENCE OF FOOD SYSTEMS IN THE NUBA MOUNTAINS CONFLICT



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ACRONYMS

ARS	Area Rehabilitation Scheme
CBO	Community Based Organisation
CDO	Closed District Ordinance
CFA	Cease-Fire Agreement
CPA	Comprehensive Peace Agreement
CSO	Civil Society Organisation
DIAF	Direct and Immediate Access to Food
EPI	Expanded Programme of Immunisation
ES	Environmental Sanitation
ESA	Agricultural and Development Economics Division (FAO)
FAO	Food and Agricultural Organisation of the United Nations
FIFC	Feinstein International Famine Centre, Tufts University
GOS	Government of the Sudan
GUN	General Union of Nuba
HAC	Humanitarian Aid Commission
IARA	Islamic African Relief Agency
ICG	International Crisis Group
IDP	Internally Displaced Person
IFAD	International Fund for Agricultural Development
IGAD	Inter-Governmental Authority on Development
IMF	International Monetary Fund
INGO	International Non-Governmental Organisation
JMC/JMM	Joint Military Commission/Joint Monitoring Mission
LTTF	Land Tenure task Force
MFC	Mechanised Farming Corporation
NC	National Congress
NDA	National Democratic Alliance
NGO	Non-Governmental Organisation
NFSWG	Nuba Food Security Working Group
NIF	National Islamic Front
NMP	Nuba Mountains Programme
NMPACT	Nuba Mountains Programme Advancing Conflict Transformation
NNGO	National Non-Governmental Organisation
NRDRO	Nuba Relief, Rehabilitation and Development Organisation
OLS	Operation Lifeline Sudan
PAC	Policy Advisory Committee
PDF	Popular Defence Force
PHC	Primary Health Care
RDPE	Rural Development and Productivity Enhancement
SCC	Sudan Council of Churches

SKRPU	South Kordofan Rural Planning Unit
SPLM/A	Sudan People's Liberation Movement/Army
SRC	Sudanese Red Crescent
SRRA	Sudan Relief and Rehabilitation Association
SRRC	Sudan Relief and Rehabilitation Commission
UN	United Nations
UN RC/HC	United Nations Resident/Humanitarian Co-ordinator
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
US	United States of America
USAID	United States Agency for International Development
WFP	World Food Programme of the United Nations

EXECUTIVE SUMMARY

Complex emergencies, conflict and insecurity are increasingly being recognised as the most important causes of food insecurity and famine. Responses to such crises generally have a humanitarian or emergency character and mainly focus on immediate priorities such as provision of food aid, shelter and healthcare as well as perhaps the distribution of physical inputs such as seeds and tools in a subsequent phase. Very rarely do such responses attempt to protect and support livelihoods by addressing the complex root causes of the crisis, often because of a general lack of long-term policies and strategies for addressing food security problems in a sustainable manner in protracted emergency contexts. The study presented here aims to examine the experience of the Nuba Mountains Programme Addressing Conflict Transformation (NMPACT) in this context. The programme provides an example of an operational response which has broken from traditional externally driven responses to food insecurity and, drawing on lessons from Operation Lifeline Sudan (OLS), has adopted an approach that focuses on capacity building, sustainable agriculture and market revitalisation, alongside conflict transformation and peace-building.

The case study starts with a brief description of the main characteristics of the region and the origins and evolution of the conflict. The Nuba Mountains are located at the centre of the Sudan in the State of South Kordofan and include Lagawa Province in the current State of West Kordofan. The main inhabitants of the region are commonly known as the Nuba. This is a highly complex mix of people comprising 50 different groups speaking 50 different languages, who despite this great heterogeneity share a number of fundamental common cultural practices and beliefs and who widely recognise themselves as Nuba. The region is also host to a number of nomadic groups of Arab origin as well as the Fallata of West African origin. The roots of the conflict predate colonial intervention, though the policies promoted by the colonial administration contributed to considerably exacerbate the political and economic marginalisation of the people of the Nuba Mountains. Continuing marginalisation and discriminatory land policies introduced by various independent governments heightened feelings of frustration and resentment amongst the Nuba people, many of whom eventually decided to join the SPLM/A, expanding the civil war to the Nuba Mountains in 1985.

The second chapter of the study describes in detail the main livelihoods profiles in the Nuba Mountains, the external shocks to which local food systems have been subjected over the years and the levels of resilience of the local Nuba communities. The institutional context is also examined. The document seeks to identify the complex sets of inter-related but changing factors and actors which have characterised the context of crisis in the Nuba Mountains over the last two decades. Three main livelihoods groups are identified, which include traditional smallholder agriculturalists, pastoralists and horticulturalists, with the farming and pastoralist livelihoods systems being reviewed in detail, including the interaction between the two systems. The study then analyses the impact of external shocks on the two food systems and on food security. Firstly, the consequences of the Unregistered Land Act and the expansion of mechanised farming in the region are discussed, showing how the Act resulted in sustained land grabbing to the detriment of poor farmers and intensified disputes between smallholder farmers and mechanised scheme owners as well as between farmers and pastoralists. The economic and ecological impact of the mechanised schemes in the Nuba Mountains is also reviewed and the link between the land question and the outbreak of the conflict in the region is analysed. The study then examines the impact of the conflict on people's assets

and livelihoods, showing statistics about the marked decline in the availability of basic services as well as major changes in food security levels, including changes in per capita staple grain deficit/surplus, trends in crop production and variations in livestock holdings. Significant differences in the impact of the conflict between areas under government control and areas under SPLM/A control are highlighted. Differences between the two areas are also examined with regard to indigenous coping mechanisms and levels of resilience of local livelihoods systems. Finally, the last part of this section looks at the response of the institutional context to livelihoods vulnerability, describing the policies of both the government and the SPLM/A.

Chapter three of the study looks in detail at the processes leading up to the design of NMPACT. The key features of the programme are presented. NMAPCT was designed as a phased, multi-agency, cross-line programme aimed at enabling all stakeholders to contribute to a Nuba-led response that addressed the short and long term needs of the people of the Nuba Mountains. The programme adopted an approach centred on capacity building, sustainable agriculture and market revitalisation, alongside conflict transformation and peace-building. The chapter then discusses the main lessons learned from the experience of the OLS in the development of NMPACT, focusing amongst other issues on the need to transcend the North-South divide of the OLS operation and establish one single, co-ordinated cross-line initiative.

In the fourth chapter an in-depth analysis of the main elements of innovation in the NMPACT model is carried out, with particular emphasis on the role of the principles of engagement and the ‘political humanitarianism’ of NMPACT. Much of the uniqueness and effectiveness of NMPACT derived from the principles of engagement, which provided the partners with an overall framework to buy into and gave the response a strong conceptual rootedness. The development of the principles stemmed from the common analysis of the partners of the limitations of traditional approaches to complex emergencies founded on the humanitarian principles of neutrality and impartiality and largely limited to relief. The underlying theme of the ‘principles of engagement’ was to integrate the aid framework within a political framework for conflict transformation. Using humanitarian assistance to contribute to conflict resolution and peace building meant applying conditionality and the principles were intended to guide the partners to undertake consistent decision making. The principles are described in detail, including their focus on advocacy and the resulting ‘political humanitarianism’. The close linkage between NMAPCT and the implementation of the Nuba Mountains Cease-Fire Agreement as well as its close co-operation with the Joint Military Commission/Joint Monitoring Mission (JMC/JMM), the international force mandated to monitor the cease-fire, represented another novel development in the history of external assistance in the Sudan in that a humanitarian intervention was expressly linked to a political initiative.

The case study continues with a review of NMPACT’s food security approach, which prioritised capacity building over the delivery of external inputs (food aid and infrastructure) and removal of the constraints to food security (e.g. insecurity, barriers to access to land and market constraints) from the onset of the intervention. This was a reversal of the approach used in other crisis contexts within the OLS umbrella where the focus on emergency or short-term measures continued to prevail and where longer-term interventions to strengthen food security were relatively uncommon. The study uses the Twin Track, an analytical framework developed by FAO to assess the health of a food system in crisis, which is premised on the assumption that food emergencies are social and political constructions. This is employed to carry out a preliminary review of how

NMPACT interventions focused on supporting the long term resilience and the recovery of local food systems beyond emergency responses to immediate and life saving needs while the crisis was still ongoing. The last part of chapter four examines the interface between local institutions and external stakeholders as well as the role of information flows in decision making and policy development. The limitations in delivering the model and the key challenges ahead are also discussed in order to distil lessons for the possible replicability in other complex emergency contexts.

Finally, main lessons from the NMPACT experience are derived which can inform policy and practice in complex emergencies. A special focus is placed on co-ordination, particularly given the fact that this is traditionally difficult to achieve in crisis contexts. NMPACT's experience shows that there is much to gain from strategic co-ordination in complex emergencies, when analysis, discussion, monitoring and review of the situation and ongoing and planned interventions are required. It is important to emphasise, though, that the model of co-ordination offered by NMPACT had a low degree of controversiality since it focused on providing services to partners and facilitating learning and analysis, rather than assuming a strong lead role in decision making or management of security issues. Lastly, the main lessons from the principal elements of innovation of NMPACT, the principles of engagement and 'political humanitarianism', are also discussed.

Much remains to be tested and understood in the context of programming in complex political emergencies. The experience of NMPACT, while of a short duration, shows that there is a clear role for applying long term and systematic development thinking to emergencies and supporting learning and analysis of the deep rooted causes of the main elements of a crisis to generate informed responses. While the need for quick external aid delivery cannot be avoided in the event of major crises or emergencies, there is definitely a need to adopt and adapt alternative models in contexts where such emergencies have become chronic and where there are political elements that need to be tackled to unblock the crisis. Its relevance for the Sudan is particularly high at a moment when peace and confidence building are very much on the agenda and when the situation in Dar Fur risks becoming a chronic emergency, where the international response is strongly driven by the provision of external inputs and has so far done very little to understand local political and livelihoods realities to inform interventions. Whilst the peculiarities of any given situation will always differ, the rootedness of NMPACT in a range of developmental principles mean that it offers lessons for responses in various similar contexts in the region and beyond.

INTRODUCTION AND METHODOLOGY

The International Workshop on 'Food Security in Complex Emergencies: Building Policies Frameworks to Address Longer-Term Programming in Complex Emergencies', organised at Tivoli by FAO-ESA in September 2003, highlighted the need to develop appropriate policies to address and strengthen livelihoods in complex emergencies. Following the conference, FAO-ESA promoted a wide research effort to analyse the links between policy, practice and information flows in three countries under complex emergencies conditions (Sudan, Somalia and the Democratic Republic of Congo), in order to contribute to the development of policy frameworks to address long-term programming in complex emergencies. The study presented here was commissioned as part of this research effort and analyses the experience of the Nuba Mountains Programme Advancing Conflict Transformation (NMPACT) as an innovative model of operating in complex emergencies.

The Nuba Mountains case study is complemented by another study which analyses experiences with livestock interventions in southern Sudan, prepared by the Feinstein International Famine Centre (FIFC) of Tufts University, as well as by a general overview paper on conflict affected areas of southern and central Sudan prepared by Luca Russo. The two case studies aim to address four key issues and seven related research questions identified by the general overview paper. The four key issues highlighted in the paper (Russo, 2004:32) were the following:

- Issue 1: Policy making and priorities in complex emergencies:** in the Sudanese complex emergency context different actors have different policy objectives that are not necessarily short-term or purely based on humanitarian principles;
- Issue 2: Complex emergencies: only humanitarian responses?:** whilst short-term emergency responses have been predominant in the Sudan, some recovery and development interventions were also undertaken with satisfactory results, thereby questioning the rationale of the overall response of agencies and the donor community;
- Issue 3: Information needs and information flows:** the massive flows of information produced in the Sudan were used in a very limited way by stakeholders and were mainly confined to support short term responses. Information flows did not appear to help improving stakeholders' accountability levels. This could be as a result of the quality and relevance of the information but also because of the diverging agendas of information producers and users, which may have influenced the type of responses undertaken;
- Issue 4: The neglected role of local institutions:** the actual and potential role of local institutions (SPLM linked administration, non-state actors and social networks) on food security related matters has *de facto* been ignored by most international stakeholders with repercussions on the relevance and appropriateness of responses.

On the basis of the issues identified above, a number of research questions were formulated (Russo, 2004:32-33), which this case study has endeavoured to address:

- Question 1 What have been the constraints embedded in the humanitarian mandate to a sustained and equitable recovery process? What have been the effects of the underlying political dimension of the humanitarian intervention on the responses undertaken by different actors?
- Question 2 What have been the distinct features that have characterised the promotion of food security related recovery and development responses in the Sudan emergency context?
- Question 3 By looking at typical food security emergency interventions in the Sudan, what factors can be identified as contributing to create the precondition for longer term responses and what elements could have instead affected the recovery process?
- Question 4 To what extent the process of elaborating and implementing (food security related) responses have been shaped by the information flows currently existing in Sudan?
- Question 5 What have been the gaps in terms of information production and analysis and institutional set up that may have somehow constrained the development of responses with a longer-term perspective?
- Question 6 What have been the key food security related responses undertaken at all levels by local institutions? What have the strength and weaknesses of these responses?
- Question 7 What has been the role of international assistance with respect to the support to locally based responses? What elements of the international interventions can be identified as strengthening/weakening those responses?

In addition, the study has used the Twin Track approach, an analytical framework developed by FAO to assess the resilience of food systems in protracted crisis and strengthen them with appropriate interventions. This approach aims to help agencies and institutions responding to food emergencies by facilitating them to consider their interventions in terms of the resilience of the system to withstand shocks in the longer term, well beyond the temporary efficacy of emergency responses to immediate and life saving needs. The framework is organised in terms of two 'tracks' which are considered mutually reinforcing: the Direct and Immediate Access to Food (DIAF), which encompasses interventions that are essential in the immediate and medium terms, and the Rural Development and Productivity Enhancement (RDPE), which consists of elements considered crucial for stability and predictability (see 4.3.1). The framework is used here to analyse how interventions undertaken within the framework of NMPACT were consistent with the stated objective of enhancing Nuba people's self-reliance while also addressing their immediate needs.

The ideas, information and data used to address the research questions are based on a review a large amount of literature, both published and grey, on the Nuba Mountains, particularly related to food systems in the region, and a considerable number of documents on NMPACT. Communication with humanitarian and development workers currently engaged in the region has also been undertaken to probe the research findings.

The analysis has benefited from the long-standing association of the author with the region and her personal first hand knowledge and insights on the Nuba Mountains humanitarian context and the NMPACT experience.

1. BACKGROUND: THE NUBA MOUNTAINS REGION

1.1 Geo-political overview

The Nuba Mountains are located at the centre of the Sudan in the State of South Kordofan and include Lagawa Province in the current State of West Kordofan. South Kordofan State is divided into five provinces, namely Kadugli (the State capital), Dilling, Rashad, Abu Jibeha and Talodi. The region covers an area of roughly 80,000 square kilometres and its current population is estimated at between 1.2 and 1.4 million¹.

The Nuba Mountains region is characterised by rugged and eroded granitic outcroppings, some of which are over 1,000 m high, interspersed and surrounded by low-lying and generally fertile plains covered by heavy cracking clay vertisols locally known as *hadaba*. According to IFAD data (2000:10), more than 50% of the area is covered by *hadaba* soils, which have high potential but are difficult to work, and non-cracking clay soils known as *gardoud*, which are fertile and have good moisture holding capacity. The remaining 50% of the region is covered by sandy soils (*qoz*), that have limited fertility and agricultural potential and by the rocky soils found in the mountains (*karkar*). In almost all of Southern Kordofan State the natural vegetation comprises tree legumes dominated by the *Acacia* family as well as shrubs and annual grasses. The trees constitute an important resource as browse, though it is the range resource base which is most extensively used to raise livestock, most of which migrates seasonally from North Kordofan State (IFAD, *ibid.*). The vegetation however varies with soil type and rainfall pattern. The north and west of the State, where rainfall is less abundant (mean annual rainfall: 372mm), have poor to moderate vegetation which includes scattered *acacia* trees and short grasses and shrubs, while the south and the east of the State, where the mean annual rainfall is 712mm, have denser vegetation comprising *acacia* and other trees and tall grasses (IFAD, 2000 II:5; IFAD 2004a:17).

Degradation is not typical except around water sources and settlements as well as at various sites along the northern boundaries of the State, where deviation of natural vegetation dynamic trends can be observed.

There are no perennial water courses in South Kordofan State, but rainfall provides surface runoff, which forms seasonal streams (*kbors*) that originate in the hills and usually flow between July and September. Precipitation also provides renewable recharge to shallow groundwater aquifers through percolation. There are three main geological formations that provide aquifers: 1) the Baggara basin in West Kordofan (which though only extends to Lagawa Province); 2) basement complex rocks, which underlie a large proportion of the State and have limited hydro-geological potential, since water can only be found in fractures and faults; and 3) recent sedimentary formations which are found along the *wadi* (seasonal river) or *kbors* systems, the yield of which are high during or immediately after the rainy season (IFAD 2004 c:8-12).

¹ In early 2002 representatives from the Government of the Sudan and the Sudan People Liberation Movement/Army (SPLM/A) agreed on a total population estimate in the region of 1.2 million, with approximately 350,000 of these living in the SPLM/A areas at the time (Office of the UN RC/HC, 2002f:86). However, NMPACT partners later that year estimated that the overall population figure is more likely to be close to 1.4 million, taking into account population return after the signing of the Cease-Fire Agreement in January 2002 (Office of the UN RC/HC, *ibid*:7).

Temperatures in the plains are high throughout the year, with daily minima rarely falling below 15°C and daily maxima often exceeding 35°C; in the hills the altitude somewhat reduces these levels. Evotranspiration rates are high, exceeding precipitation for about 10 months a year, and the relative humidity rates are low, exceeding 50% only in July, August and September (Babiker *et al.*, 1985:9).

1.2 Population

The Nuba Mountains provide a bridge between the north and the south of the Sudan in cultural and ethnic terms. Their main inhabitants, commonly known as the Nuba, represent a cluster of originally disparate, culturally diverse, black African ethnic groups who started to settle in the mountains of South Kordofan over 500 years ago, primarily in an effort to avoid the incursions of slave traders. The term Nuba was originally used by local Arab groups to refer to the original inhabitants of the Nuba Mountains, who tend to call themselves by their hill or tribal name, to simplify their ‘bewildering complexity’ of cultures (Nadel, 1947:2). Today more than 50 different groups with 50 different, often unrelated, languages and dialect clusters recognise themselves as Nuba. Stevenson (1984:8) clustered the 50 languages into 10 primary groups as follows:

- 1) **Kawalib/Moro:** Kawalib; Heiban/Laro/Otoro; Shwai/Tira/Moro/Fungor (with Kau and Nyaro);
- 2) **Talodi/Masakin:** Talodi; El-Liri; Mesakin; Achirun/Tacho/Torona (with the Kuku-Lumun dialect cluster);
- 3) **Lafofa:** Lafofa; Amira;
- 4) **Tegali/Tagoi:** Tegali/Rashad/Kajakja (Tegali sub-group); Tagoi/Tumale/Moreib (Tagoi sub-group);
- 5) **Kadugli/Korongu:** Tullushi/Keiga/Kanga; Korongu/Tumtum Miri/Kadugli/Katcha/Tumma;
- 6) **Timain:** Timain; Keiga Jirru/Teisei-Umm Danab;
- 7) **Katla:** Katla/Julud; Tima;
- 8) **Nyimang:** Nyimang; Affiti (eastern part of Jebel Dair);
- 9) **Hill Nubian:** Dair/Kodoro/Ghulfan and dialects of some small western hills (Tabaq, Abu Jinuk); Dilling/Westren Kodoro/Karku/Wali;
- 10) **Daju:** Daju of western Kordofan (near Lagawa); Liguri; Shatt.

Many of the names used by Nuba groups which are not related to one of the hills originate from Arabic and often have a pejorative meaning, e.g. *Kawalib* (dogs), *Ghulfan* (pagan, uncircumcised) or *Masakin* (poor). The Moro and the Otoro (who belong to the Kawalib/Moro’s linguistic group) are the largest groups, while the Tullushi, the Tima and the Tabaq are some of the smallest (Harragin, 2003a:3).

Despite the apparent racial, ethnic and linguistic diversity of the Nuba, there are homogeneous elements amongst the different groups that can be referred to as ‘Nuba culture’ (Saeed, 2001:11). These include traditional religious beliefs (e.g. in the *kujur*, the tribal priest or traditional healer with magical powers), marriage rules and sowing and harvesting festivals among others.

Culturally and economically the majority of the Nuba are settled farmers, though they share the region with Arab cattle herders, mainly Baggara Hawazma and Shanabla as well

as the nomadic Fallata of West African origin (known elsewhere as Fulani). The area has always been recognised as one of the richest and most fertile of the Sudan. In the past, surplus food production was registered on a fairly regular basis, and the area was one of the few in the country to be largely unaffected by the 1984 drought. Unfortunately, the inception of conflict in 1985, the roots of which go as far back as the British colonisation and its unbalanced policies in the region, and its intensification in 1989 have led to a near-total breakdown of the local production system, which has increased the vulnerability of the local population.

1.3 Historical overview: from the British colonisation to the outbreak of the conflict in 1985

The roots of the conflict in the Nuba Mountains can be traced in the history of isolation and unbalanced policies that have affected the region since the Turco-Egyptian times. During the Turkiyya and the Mahdiyya the Nuba were victims of slave raids which pushed much of the population to the hills, away from the fertile clay plains. The British administration made several efforts to bring people down from the hilltops and to regulate relations between the Nuba farmers and the various Arab pastoralist groups who travelled across the region through the Native Administration system. The British however never resolved the dilemma of whether to 'preserve' and isolate the Nuba from the Arab influence or to assimilate them into the North. A policy of isolation prevailed for a while and the Nuba Mountains were created as a separate district from Kordofan under the Closed District Ordinance of 1922, which stipulated that Arab traders, preachers and other northern Sudanese needed a special permit to enter the district. The then Governor of Kordofan, J.A. Gillian, felt that this measure would enable the Nuba to steer their own development and decide on their own terms how they should be integrated with the rest of the Sudan (African Rights, 1995:17). Unfortunately no measure was introduced to stimulate the endogenous development of the region, apart from encouraging small-scale cotton cultivation and setting up a few mission schools. This resulted in the migration of many Nuba men to northern towns and to the Gezira scheme in search of labour, with the ironic effect of bringing the Nuba in close contact with the North and the Arab-Islamic culture, something which the Closed District Ordinance set out to prevent. The migrants, who inevitably had an inferior status in the North, became the most potent force in promoting Arabic and Islam in the Nuba Mountains.

The Closed District Ordinance was revoked in 1937 and the Nuba Mountains were reintegrated into the northern region of Kordofan under pressure from the Baggara and of the merchants from the Nile valley living in the region (Johnson, 2003:131). Ten years later it was decided that Arabic would become the medium of instruction in the Nuba Mountains, thus integrating the Nuba by default into the northern social and political system. However, the lack of education and the underdevelopment of the region did not allow the Nuba to play an active role in Sudanese politics and put the Nuba at a structural disadvantage vis-à-vis northern Sudanese (African Rights, *ibid.*:18). An aggressive campaign of assimilation to the North dating back to this period put the Nuba under pressure to conform closely to northern culture and convert to Islam. Nuba Muslims were often the most zealous promoter of such change. Although such pressures strained the relation between the Nuba and the North, the Nuba did not join the fight of the Southerners, who first went to war against the government in 1956 as the Anyanya movement, mainly because of the limited political awareness of the Nuba at the time and

of the largely anti-secessionist feelings of those who were politically active. The first all-Nuba political party, the General Union of Nuba (GUN), was formed in 1963 to represent Nuba interests in the central government, but its political platform was significantly different from that of the Anyanya.

In the 1970s the abolition of the Native Administration and the introduction of new land laws *de facto* deprived many Nuba of their land in favour of non Nuba groups and rendered traditional mechanisms of intra- and inter-tribal conflict resolution ineffective. Wealthy northern merchants invested in large mechanised farming schemes on what was previously Nuba land, while local Arab groups invested in small-holders schemes (see 2.2.1 and 2.2.2 below). The mechanised schemes also cut across the transhumance routes of Baggara nomads, who in order to avoid being fined for trespass frequently re-routed their herds through Nuba farmland. With the absence of a system to settle disputes, armed confrontation started to escalate in the region. The lack of education opportunities for young people further compounded the feelings of frustration and marginalisation amongst Nuba youth at the beginning of the 1980s. Many Nuba increasingly became sympathetic to the plight of the Southerners and decided to support the new civil war when it erupted in 1983 under the leadership of the Sudan People Liberation Movement/Army (SPLM/A). The people of the Nuba Mountains entered the civil war in July 1985 led by late Cdr. Yusuf Kuwa, who was an elected Member of Parliament at the time and was the head of an underground Nuba movement called *Komolo*. They joined with the SPLA to bring about fundamental change and a restructuring of the country.

The first incursions of the SPLA in the Nuba Mountains in 1985 sparked a strong reaction from the elected government of Sadiq al-Mahdi, which started to arm Baggara militia as well as Nuba youth forcibly conscripted in the Popular Defence Force (PDF). The militia began a violent and aggressive campaign against Nuba civilians who were indiscriminately accused of supporting the SPLA struggle. In 1988 the government started a policy of systematic elimination of educated Nuba and village leaders, which resulted in an increase in the number of recruits for the SPLA. In 1989 Yusuf Kuwa returned to the Nuba Mountains with a large SPLA force and established a permanent SPLM/A presence in the region, promoted strong political mobilisation and reorganised the civil administration in the areas under SPLM/A control (Johnson, *ibid.*:132). From the late 1980s the Nuba Mountains have been divided between two administrations, namely the government, which held most of the farmland on the plains as well as the urban centres, and the SPLM/A, which held the crowded hilltops (see map in Annex II).

2. LIVELIHOODS SYSTEMS AND FOOD SECURITY IN THE CONTEXT OF CRISIS IN THE NUBA MOUNTAINS

2.1 Main livelihoods profiles in the Nuba Mountains

The Nuba Mountains population can be broadly subdivided between rural and urban, with the urban population constituting about 22.5% of the total (UNFPA/CBS, 1999²). In the rural areas three main livelihoods groups can be identified: 1) traditional agriculture smallholders, who constitute approximately 60% of the State's rural population and traditionally practice subsistence farming based on the cultivation of sorghum combined with livestock raising; 2) pastoralists, who amount to 30% of the State rural population and are mostly transhumant, following seasonal migration for grazing when they own large herds; and 3) horticulturalists, who represent some 8% of the rural population and are mainly concentrated around the *wadis* in the north and adjacent to larger settlements, where they practice agriculture and intense crop cultivation, including irrigation, as well as providing labour for the mechanised schemes in the State (IFAD, 2000 I:14). It is important to note that while smallholder traditional farming occupies most of the State's rural population, mechanised farming occupies more than half of the fertile plains within the region (AACM, 1993:165). The farming and pastoral systems prevalent in the region are analysed in detail below.

2.1.1 The farming system

The livelihoods system of the Nuba groups is centred on farming, both in the mountains and on the plains. Four main agricultural systems prevail in the region:

- 1) smallholder traditional farming;
- 2) mechanised smallholder schemes;
- 3) large scale mechanised farming; and
- 4) horticultural production.

As said above, the majority of South Kordofan farmers practice traditional smallholder agriculture, which include the following characteristics: small farm areas; subsistence and labour intensive production; no use of machinery, fertilisers, improved varieties or crop protection and primitive production techniques (AACM, *ibid.*:166). On the central clay plains and in the eastern and southern parts of the State, a typical Nuba farm is divided into three different fields: house farm (*jubraaka*), hillside (near) farm and far farm, according to the literal translation of the vernacular terms used in most Nuba groups (Harragin, 2003a:6). The *jubraaka*, though the smallest, is the most intensively cropped and it is usually the responsibility of women, who also contribute to the other fields. The near farm is often about two km from the village, while the far farm can be much further (AACM, *ibid.*). Crops involve swift maturing varieties of sorghum, maize and beans, as well as groundnuts. Historically, the hills have been the main areas of Nuba settlement and cultivation, chiefly as a result of Arab slave-raiding attacks in pre-colonial times which made the plains too dangerous to settle and forced the Nuba to flee to the hills for protection. However, following the British colonial 'pacification' and until the beginning of the conflict in 1985, a trend developed that saw people move down from the hills and become increasingly dependent on the far fields in the clay plains. On the hills people

² These data relate to GOS controlled areas. The percentage of urban population in the State should therefore be lower if considered that in the SPLM areas, which amount to approximately 20% of the State (UNCERO, 1999), there is no urban centre.

have been relying on a system of intensive cultivation based on terraced fields to control water flow and soil erosion, manuring of house fields and to some extent near fields, and collection of fodder for their animals. The far fields are cleared by fire and planted with slow-maturing sorghum coupled with sesame and beans (Manger *et al.*, 2003a:8).

Soils suitable for the cultivation of the basic food staples of the Nuba Mountains are limited. As described in 1.1. the soils are broadly divided by local people into fertile clay soils in the plains (*badaba*), sandy/clay pediment soils found at the foot of the mountains (*gardud*) and rocky soils in the mountains (*karkar*). None of these is able to sustain uninterrupted cultivation without the use of artificial fertilisers, which are unaffordable even for major commercial farmers in the area. As a result farmers leave the land fallow for a few years to recover and cultivate a different plot cleared under a 'shifting agriculture' regime. Clay soils need to be left fallow for at least the same length of time for which they have been cultivated, while sandy soils need three times as long under fallow as under crop and therefore most of the cultivation takes place on clay soil (Harragin, 2003b:4). Table 2 overleaf summarises the characteristics of traditional smallholder farming by Nuba groups. It is important to remark that data largely refer to pre-war conditions and that in particular the size of the farms under crops has significantly reduced as a result of the conflict (see 2.3.1 below).

The Nuba economy has traditionally been geared toward subsistence, i.e., producing sufficient food for survival, though people also cultivate cash crops for sale in local and regional market places. Major Nuba cash crops are sesame, groundnuts, *hibiscus*, cowpeas and watermelon, but cash crop cultivation has historically been limited by lack of technology as well as by market constraints. Price fluctuations and lack of control over markets make excessive reliance on cash crops a risky strategy, so farmers have traditionally included cash crops alongside staple food crops as part of a basket of agricultural produce. After independence, new cash crops were introduced by successive Sudanese governments, primarily cotton, but most of these were not successful and became significantly less important during the late 1970s and early 1980s. Horticulture has appeared in areas with suitable soil and water, primarily in eastern parts of the region, but market constraints have again limited its expansion. Charcoal production is another source of cash income, while a critical alternative to cash cropping is labour migration, both within the region and Khartoum and other major Sudanese towns (Manger *et al.*, *ibid.*).

Smallholders mainly rely on household members for their farming requirements. The capacity of a family to meet its own farming needs depends on the household size, but factors such as wealth, holding size and the extent of mechanisation also contribute significantly. Although the family is the basic unit of production, on the far farms family labour is often supplemented by assistance from neighbours, mainly through reciprocal communal working parties called *nafirs* (SKRPU, 1980f:82). The *nafir* is an obligatory institution whereby relatives and neighbours of a family help each other execute labour intensive activities. Recruitment into the *nafir* is based on locality and kinship ties. The importance of non kin is particularly high when the family moves to a new settlement. In this regard, the institution of *nafir* has played a central role in supporting displaced Nuba families in areas where they had no relatives to count on. *Nafir* participants do not receive any cash payment, but are rewarded in kind (mostly beer, porridge, tea and coffee; a small animal is slaughtered to attract more participants on larger plots). The *nafir* is a distributive mechanism which allows members of the same settlement to express their belonging to a community through reciprocal labour support (Salih, 1984:193).

Table 1: Nuba traditional smallholder farming system on the plains

Characteristics	House farm (<i>jubrakka</i>)	Near farm	Far Farm
Topography and soil	Footslopes and hillsides on sandy clays and loams in the vicinity of the household	Footslopes and hillsides on sandy clays and loams located less than 1-2 km from the household	Plains of primarily cracking clays located 1-10 km away (commonly 5 km)
Crops raised	Early season sorghum, maize, millet, beans, okra, gourds, squash, melons, red peppers, cucumber, tobacco, <i>hibiscus</i>	Medium maturing sorghum and sesame (mixed/sole crop), cowpeas and groundnuts (intercrop)	Late maturing sorghum, sesame (mixed/sole crop), cowpeas and groundnuts (intercrop); watermelon and cotton
Area planted	0.1-1.0 <i>feddans</i> (0.04-0.42 ha)	0.75-2.75 <i>feddans</i> (0.32-1.16 ha)	Average 6 <i>feddans</i> crops/6-7 <i>feddans</i> bush fallow area
Pattern of cultivation	More or less continuous cropping with manuring every year. Plot usually fenced	Long periods of continuous cropping made possible by limited manuring. Exhausted sites left fallow for 5-15 years. Plots often fenced	Bush fallow system. Sesame or cotton first year, with 5-10 years sorghum followed by variable fallow period of 5-10 years
Land preparation	Weed clearing and short and long handed hoes, some bush and grass burning and rock clearing/removal	Similar to <i>jubrakka</i> . Crude terracing to clear the site of rocks, contain run off and reduce manure and soil loss	New land cleared with axes and hoes, old grass sometimes burned to kill new germinating weeds
Time of planting	Early to late June	Early to late June	Mid-June to late July
Time of weeding	Late June, mid-July and mid-August	Mid-July and mid-August	Mid-July and mid-August
Time of harvest	Early to mid-September	Early to mid-September	December to January
Typical yields	240-320 kg/ <i>feddan</i> (570-760 kg/ha)	120-200 kg/ <i>feddan</i> (290-480 kg/ha) sesame. 280-360 kg/ <i>feddan</i> (670-860 kg/ha) groundnuts	Variable: sorghum 250-560 kg/ <i>feddan</i> (600-1,300 kg/ha)
Crop disposition	Mainly for household consumption prior to main sorghum harvest	Market as well as current season consumption	Sorghum mainly for food, other crops for food and cash
Labour source	Both sexes, but mainly women	Adult men and women (family labour)	Both sexes, mainly adults, dominated by communal working groups (<i>nafir</i>)

Adapted from AACM, 1993:168.

The smallholder agricultural system varies slightly for the Arab family farms which predominantly occupy sandy *qoz* plains in the west of the State. The typical farming Arab household has only two fields: the *jubraka* and a main far field. The Arab *jubraka* is similar to the Nuba one; crops include early varieties of maize and sweet sorghum, cowpeas, okra, tomato, *hibiscus*, cucumber, watermelon, peppers and sweet vegetables. The far field has an average area of five *feddans* (2.1 ha) and it is two to five km away from the settlement. The main crops are millet (60%) and groundnut (30%), while sesame and *hibiscus* are minor crops. Cowpeas and watermelon are often intercropped with millet. Labour on the farms is mainly contributed by the family. The system follows a bush fallow rotation in which four to five crop years are followed by up to 16 years of bush fallow (AACM, 1993:166).

Both Nuba and Arab smallholders have traditionally been keeping some animals: goats are the most common among the Nuba (though some also have cattle), while sedentarised Arab groups tend to have sheep and cattle. In some cases their herd sizes can be considerable. Animals provide milk and meat as well as fertiliser for plots. They are important for wealth accumulation, with disease and access to pasture as limiting factors. Success and failure in the management of animals is a major factor creating differentiation among Nuba households. Successful animal keepers could make agreements with the Baggara nomads on their seasonal migrations to northern Kordofan, thus better exploiting available resources, or some Nuba could even establish themselves as nomads, joining a Baggara camp, though the war has curtailed these strategies (Manger *et al.*, 2003a:8). The conflict has also severely affected herd ownership patterns and today most farming households are virtually stockless (see 2.2.2 below).

Traditional smallholder farming has been complemented by mechanised crop production in parts of the State. Mechanised schemes, which have involved clearing large plots of land, have not been successful and most large schemes have failed. Major reasons for this failure have been the use of follow-on mono-cropping practices, mainly for sorghum and cotton production, with minimal inputs and inappropriate technology (IFAD, 2000 II:13). The impact of the introduction of the mechanised schemes on the livelihoods of Nuba and other groups in the region is discussed in detail below (see 2.2.1).

Constraints to marketing have always been significant in South Kordofan State, particularly given the lack of an adequate road network and market outlets and of appropriate techniques to process or store food. A further factor which prevents smallholders from maximising the gains of their production is the system of rural credit which dominates in the region, known as *sheil*. The *sheil* system consists of money lenders or merchants who make seasonal advances in cash or in kind to farmers who in turn agree to repay a set amount of produce at a predetermined price (AACM, *ibid.*:241). This form of credit is perceived as exploitative of farmers, since these usually sell their crops at prices that are undervalued and devoid of inflation and receive consumer goods at high current prices. *Sheil* merchants make profits in the region of 40% to 60%. In addition to the exploitation of the farmers, the *sheil* system is also blamed for hindering agricultural growth in the traditional sector, since it gives producers little incentive to increase output as a higher proportion of their gains would go towards the repayment of increased loans (AACM, *ibid.*). Due to the difficulties farmers face in obtaining formal credit (often because of lack of collateral since few farmers have secure land titles), the *sheil* system remains vital to the seasonal financing of agricultural operations.

2.1.1 The pastoral system

Apart from settled farmers, South Kordofan State is also inhabited by groups of nomadic Arab pastoralists for part of the year. The pastoralists are primarily Baggara Hawazma cattle keepers and Shanabla camel herders and to a lesser extent nomadic Fallata of West African groups (mainly keeping cattle). These groups move over long distances, spending the rainy season in the sandy areas of northern Kordofan and moving southwards into the Nuba Mountains during the dry season, travelling as far as Shilluk land in Upper Nile Province for dry season grazing. These North-South migrations take them through the Nuba Mountains, where they interact with the local Nuba groups.

The cattle herding nomadic groups amount to about 25% of South Kordofan's population, but they own 80% of the livestock (IFAD, 2000 III:5), though conflict and drought have significantly affected livestock holdings over the last decade (see 2.2.3 below). The nomads follow six main migration routes (*marabeel*; sing.: *murhal*) in South Kordofan, each of which is about 180 km long in either direction. Each seasonal one-way journey takes about six weeks, depending on the availability of water and pasture along the *murhal*. Nomadic groups therefore spend approximately three months a year on transhumance. In normal rainfall years most nomadic groups end up staying in North Kordofan for about three months before returning to the Nuba Mountains, while in years of poor rainfall they only travel to the northern parts of South Kordofan, where they stay for just six weeks before returning south (IFAD, *ibid.*). Before the conflict the most used routes were between El Buram, Kadugli and Dilling and Talodi, Heiban and Habila. Most of these routes were abandoned during the war, when most nomadic groups used a route between El Liri, Kalogi and Dallami. Since the signing of the cease-fire agreement in 2002 (see 3.2 below), some groups have been resuming transhumance along the old routes.

The relation between the nomadic Arab groups and the settled farmers in the Nuba Mountains has been characterised by both peaceful co-existence and confrontation. From a perspective of interacting production systems, settled farming and pastoralism are highly complementary. Until the 1970s in different parts of the Nuba Mountains pastoralists and farmers tried to capitalise on their interaction to maximise the use of available resources. Arab pastoralists were allowed into the Mountains and other farming areas after the harvest was collected and usually stayed there until the first rains. They grazed their livestock on the harvested fields, thus fertilising them, and helped the villagers transport their grain to the market with their camels. In some cases production and commercial links between farmers and pastoralists developed, fodder and grazing could be exploited after cultivation, and even draught linkages were developed between them. Pastoral nomadic populations were therefore fully integrated in the sedentary political economy (Manger *et al.*, 2003a:9). However, patterns of political marginalisation and economic exploitation of Nuba communities have caused current relationships in the region to be characterised by conflict rather than complementarity. The last decade and a half of war has further undermined the viability of previous regulatory agreements. Like the settled communities, but for different reasons, pastoralists have also suffered from the establishment of mechanised agriculture schemes (see 2.2.1), and also tend to be marginalised within wider Sudanese society.

2.2 External shocks on food systems and food security

2.2.1 The consequences of the Unregistered Land Act and the expansion of mechanised farming in the region

The land tenure system in the Nuba Mountains has traditionally been based on customary holdings. The system started to undergo important changes with colonial rule. The British accepted customary rules over land, but the title to land was vested in the government. During the colonial rule the first cotton schemes were introduced in the region both with the aim of growing cheap cotton for the British textile industry and to increase colonial revenues by involving Nuba people in the production of a cash crop which could enable them to pay the poll and crop taxes (Salih, 1984:194). The colonial administrator also superimposed on the existing multi-faceted Nuba tribal hierarchy a system of Native Administration (*Idara Abliia*) which was entrusted with the tasks of collecting taxes and arbitrating local disputes, including over land access, ownership and use. Whilst the introduction of the cotton schemes attracted northern Jallaba traders to migrate to the Nuba Mountains to deal in manufactured goods (Salih, *ibid.*:195), land acquisition by merchants was limited during the colonial time.

After independence the colonial land tenure management system was abolished and tribal leaders were replaced predominantly by northern administrators. Furthermore, the state started to confiscate land to the advantage of wealthy and powerful individuals, who started to invest heavily in agricultural schemes in the 1960s. The Jallaba took control over large portions of Nuba cultivable land, something which created strong resentment amongst the Nuba who started to show signs of revolt during the mid-1960s (Salih, 1995:74). The Mechanised Farming Corporation (MFC) Act of 1968 established that 60% of land had to be allocated to local people and that no-one could have more than one farm, each of which was to be allocated in lots of between 500-1500 *feddans*³. This proviso was though ignored and some outside landowners ended up with more than 20 farms. According to O'Brien (quoted in Harragin, 2003b:13), 50% of Habila leaseholders were merchants and only 11% had previously been farmers.

The promulgation of the Unregistered Land Act in 1970, which abolished customary rights of land use, led to deregulation and further seizing of land for agricultural schemes which cut into prime land of small farmers and nomadic pastoralists. The Act provided that all unregistered land of any kind (cultivable, pasture, forest, etc.), occupied and unoccupied, would become the property of the government and be deemed registered as such (LTTF, 1986:4, emphasis added). The Act did not define the legal status of the current land users and gave the government ample powers of eviction. Compensation for the displaced farmers was discretionary rather than compulsory and often consisted in a choice between inferior land outside the scheme or keeping the existing plot but paying rent for it (Harragin, *ibid.*:16). Understandably, very few people were prepared to pay for land they considered theirs.

The Unregistered Land Act provided a legal basis for land acquisition for large scale mechanised agricultural projects (LTTF, *ibid.*). By 1993 2.5 million *feddans* (1,050,000 ha) were under mechanised farming and it is estimated that today the figure is in the range of 3-4 million *feddans* (1,260,000 – 1,680,000 ha), i.e. between 9% and 12% of the total area of South Kordofan (Harragin, *ibid.*:13). Considering that all the schemes are on the fertile

³ The MFC was replaced in 1995 by the Department of Rainfed Agriculture in the Ministry of Agriculture.

clay plains, the best soils in the region, which amount to about 21% of the total area of the State, it means that half of the total area of the plains is taken up by the schemes.

Table 2. Major schemes in South Kordofan State as of 1993⁴

No.	Name	Size (feddans)	Comment
1	Habila	400,000	Not including Kortala
2	Sarajiya/Jadeid	360,000	Abu Jibeha Province
3	Tiara	300,000	Abu Jibeha Province
4	Mitaimir/Haluf	280,000	Abu Jibeha Province
5	Abbasiya	230,000	Rashad Province
6	Korthala Extension	200,000	Abu Jibeha Province
7	El Beida	200,000	Talodi Province
8	Umm Lubia/ El Azraq/Karandel	170,000	Part Rashad/Part Abu J.
9	Garada	140,000	Abu Jubeiha Province
10	Tosi	9,000	Talodi Province
11	Umm Shara	3,000	Lagawa Province
12	Durangas	3,000	Lagawa Province
13	Nabagaya	3,000	Lagawa Province
14	Abash	3,000	Lagawa Province
15	Gangaro Tiwal	2,500	Lagawa Province
16	Zabagha	1,500	Lagawa Province
17	El Arak	1,000	Lagawa Province
	Total	2,306,000	

Source: Harragin, 2003b:15 (based on State Ministry of Agriculture data, Dilling, and AACM, 1993:180)

The introduction of the Law of Criminal Trespass of 1974 made for even more restrictive rights of access for pastoralists and smallholding farmers to land under schemes. Shortly after the enactment of the Unregistered Land Act, the Native Administration was also abolished with the Local Government Act of 1971, which instituted Executive Councils and subsidiary District Councils and rural, village and nomadic camp councils in all the provinces of the country. *De facto*, though, the lower levels of the new system became operational only in a few areas and often were only partially functioning (LTTF, *ibid*). Land tenure issues therefore continued to be administered by traditional leaders who no longer had a legal basis to allocate land and solve disputes.

The absence of a regulatory body resulted in sustained land grabbing and intensified disputes between farmers and scheme owners and farmers and pastoralists, transforming traditional tribal animosities into political conflicts, latterly involving the use of modern weapons. The recognition of customary rights was undermined even further by the Civil Transaction Act of 1984, which prohibited the recognition of customary land rights in court. The cumulative effect of the Act and measures which had preceded it was to transfer control over land to people with connections with those in power and progressively impoverish rural people (Ajawin and de Waal, 2002:121; Shazali, 2004:2). In

⁴ Other schemes include: Umm Dual, Salamat and Maftul (Talodi) and Umm Shaura, Chaika and El Azraq (Boram, the latter allegedly shared with Aulad Heiban Misseriya) in GoS areas; Al Ferish (Tira, 300 *feddans*), Kodi (Kauda, 130 *fa*), Dunger (Heiban, 400 *fa*), Sennar (Kawalib, 300 *fa*), Lado (600 *fa*), Kurci (Nogorban, 100 *fa*) and Zabagha (Wali, 300 *fa*) in SPLM areas (Harragin, *ibid*:15).

the Nuba Mountains, many northern merchants invested in the large mechanised farming schemes in the region, whilst local Arab groups invested in small-holders schemes. The alienation of prime land to outsiders created major resentment amongst the Nuba population and brought in new elements in Nuba politics. The trend continued at increasing pace throughout the 1970s and the 1980s. Nuba villages became surrounded by the mechanised schemes, which produced cotton as well as food crops, with village farmers often ending up being fined for trespass. Most of the schemes were initially concentrated around Habila, in the northern part of the State, but by 1984 they had encroached on Nuba land in most of the clay plains in the region (Salih, *ibid.*:75).

Economically the large mechanised schemes yielded considerable profits for many of their owners. In 1979 a calculation of the distribution of incomes on the schemes in the Nuba Mountains between the owners and the workers, i.e. between capital and labour, made by Leif Manger during his long term fieldwork with the Lafofa Nuba (Manger, 1994), found that 53 percent went to the owner and 47 percent to the workers. However, there were only one or two owners, compared with several hundred labourers, so the difference in income distribution was dramatic. The skewed income stream, coupled with the increased vulnerability of the once self-sufficient but now wage-dependent rural poor, further strengthened the already dominant position of northern merchants. Conversely, local farmers (and poor migrants from the south) became poorer and increasingly dependent on the schemes for their livelihoods (Manger *et al.*, 2003a:10).

The argument used by the government to justify alienation of Nuba land to wealthy (often absentee) external landowners was that only these individuals could afford to invest in the land. However, these investors only invested (and continue to invest) enough to reap a short-term profit. In environmental terms, very little has been reinvested in improving the land. Ecologically, the impact of the schemes has been disastrous for the Nuba. The Nuba practice of 'shifting cultivation' used on traditional smallholders' farms has been ignored on the schemes, where rules for crop rotation and fallow periods have not been respected by the owners and the managers of the schemes. Farm managers cultivate the fragile soils to exhaustion before moving on to a new plot, in the process depriving the local community, who originally owned the land, of its only remaining source of income – agricultural wages. The land is devastated and even if it were returned to local ownership, it would need intensive rehabilitation (reforesting, long fallow periods, etc) before its productivity could be restored (Manger *et al.*: *ibid.*).

Settled farmers were not the only victims of mechanised farming. The mechanised schemes also cut across the transhumance routes of Baggara nomads, who in order to avoid being fined for trespass frequently re-routed their herds through Nuba farmland. In particular, a large number of World Bank supported mechanised farming projects were set up between 1973 and 1993 by the Mechanised Farming Corporation on pastoralists' transhumance routes. This resulted in a lot of conflict between farmers and herders who deviated from traditional routes into Nuba smallholders' land to avoid fines. The most serious problems took place around Habila scheme, which according to IFAD data (2000 III:25) today extends across 750,000 *feddans* (315,000 ha).

The abolition of the Native Administration left an institutional vacuum to settle land disputes locally and customarily. Government courts often took the side of the Arab Baggara against the Nuba. Many dispossessed farmers started to seek labour on the schemes or to migrate to northern towns. The lack of educational opportunities for young people further compounded the feelings of frustration and marginalisation

amongst Nuba youth at the beginning of the 1980s. It is against this backdrop that the Nuba became sympathetic to the plight of southern Sudanese, though their grievances were different, and that many decided to support the new civil war when it erupted in 1983 under the leadership of the Sudan People Liberation Movement/Army (SPLM/A).

2.2.2 The outbreak of conflict in 1985 and its consequences on people's assets and livelihoods

The inception of conflict in 1985 and its escalation in the 1990s led to widespread destruction of traditional sources of livelihoods and massive internal displacement, with few Nuba retaining access to their traditional farming land. This became a key factor in what has become a situation of recurrent food insecurity. Many Nuba ran to the hilltops, where they had no access to the productive clay soils found in the plains. Many areas saw their harvest yields drop approximately ten times (NFSWG, 2001:9). People were forced to cultivate their main farms on the rocky slopes, in plateaux or next to the mountains, where the soil quality requires heavy labour and where there are restricted areas suitable for cultivation. Livestock rearing also reduced significantly, since insecurity in the plains made access to pasture land and water points very difficult, especially in the dry season. Looting of cattle also lowered livestock holdings in the areas of the region most affected by the conflict (see 2.3.1 below). The loss of livestock was further accelerated by the limited access to livestock drugs in areas where fighting was most intense.

The conflict in the Nuba Mountains dramatically changed the pattern and availability of labour opportunities in the region. From the late 1980s the Nuba Mountains have been divided between two administrations, namely the government, which covered most of the farmland on the plains as well as the urban centres, and the SPLM/A, which covered the crowded hilltops and mountainous terrain. The communities who have been most affected have been those living in SPLM/A controlled areas. Before the war, men would migrate to towns, agricultural schemes and northern markets to look for work. Those who stayed for long periods would send back remittances, but the war cut off this option for those living in SPLM/A areas, since access to areas under government control was impeded. Access to formal goods markets was also curtailed by the war in SPLM/A areas. northern traders exploited the isolation of SPLM/A areas by selling goods at high prices in the so-called 'Arab markets' that would take place in the SPLM/A areas randomly and without a regular pattern whenever northern traders ventured into SPLM/A areas with their goods.

The war also led to a total collapse of social services, including health and education. The number of health facilities and their quality declined markedly over the 1990s. Similarly, children's enrolment ratio dropped as a consequence of the war. Insecurity discouraged education and health professionals from working in the region and the high level of displacement within and out of the State disrupted the provision of basic services. The tables below illustrate some of the changes occurred as a result of the conflict⁵.

⁵ The data from 1992 refer to the old boundaries of the South Kordofan State reorganised by the Federalism Act of 1991, which comprised the following provinces: Kadugli, Dilling, Salaam (equivalent to today's West Kordofan State), and Rashad (equivalent to today's Rashad, Abu Jibeha and Talodi Provinces of South Kordofan). For reasons of expediency, unless stated, the analysis has excluded 1992's Salaam Provinces and today's Lagawa Province and is limited to the five provinces which constitute South Kordofan State today.

Table 3. Changes in availability of hospital beds and population/bed ratio

Province	No. hospital beds 1992	No. hospital beds 2002	No. PHUs 1992	No. PHUs 2002
Kadugli	200	134	439 (includes Salaam Prov.)	139
Dilling	120	98		
Rashad	300	259		
Abu Jibeha				
Talodi				

Sources: AACM, 1993:233; IFAD 2004b:G-14; Office of the UN RC/HC 2004a:13.

The data refer only to government controlled areas. In SPLM areas there are no hospitals. The table below shows the differences in availability of health structures between government and SPLM areas.

Table 4. Differences in health structures between GOS and SPLM areas

Type of structure	Ratio population/ structures GOS areas	Ratio population/ structures SPLM areas
Hospitals	128,647	(no hospitals in SPLM areas)
Health Centres	36,972	123,508
Primary Health Care Units	7,980	10,014

Sources: AACM, 1993:233; IFAD 2004b:G-14; Office of the UN RC/HC 2004a:13; Office of the UN RC/HC, 2002a (population data).

Currently in the whole of the SPLM/A-controlled areas of Nuba Mountains, there are only three doctors, four medical assistants and six trained nurses.

In the education sector, data seem to indicate that the number of schools in the region has actually increased since the inception of the conflict. However, it is not clear how many of the 615 primary schools listed by the State Statistical Department (2001, quoted in IFAD 2004b:G-15) actually function. Enrolment rates in the region have though dropped dramatically, declining from 60% in 1992 (State Ministry of Education data, quoted in AACM, 1993:234) to 34.6% in 2002 (Directorate of Planning, Ministry of Education data, quoted in World Bank, 2003 II:17). The education sector also suffers from lack of qualified teachers, teaching material and equipment (IFAD 2004 3:G-15). In the SPLM areas local estimates by Nuba NGOs put the Gross Enrolment Ratio in primary schools at 38%, though enrolment declines progressively from 43% in grade 1 to less than 1% in grade 6 (UNICEF/AET 2003, quoted in Office of the UN RC/HC, 2004a:10). However, there are only 28 formal primary schools in the SPLM areas out of 95 (with a total student population of 21,983 pupils), which are well constructed and have qualified teachers. The remaining 67 are bush schools where classes are held under the trees, teachers are untrained and classes do not go beyond grade 2, except for two schools which reach grade 3. An estimated 33,000 children do not have access to any form of education and there are no secondary schools in SPLM areas (Office of the UN RC/HC, *ibid.*).

The conflict also created widespread displacement. The total pre-war population in South Kordofan State was 1,287,525 (1983 census⁶) and it is estimated that about 400,000 Nuba

⁶ The data include Salaam Province, today's West Kordofan State

people left their areas of origin between 1989 and 1992 (NFSWG, *ibid.*:8). In 2003 it was estimated that 636,000 Nuba internally displaced people lived in government controlled areas only (IOM/UNDP, 2003:15). This figure may however have changed recently as Nuba Internally Displaced Persons (IDPs) have started returning to South Kordofan State following the signing of the Cease-Fire Agreement in January 2002 and of the Comprehensive Peace Agreement in January 2005.

Economic isolation has been a tactic of the civil war. Those living in the SPLM controlled areas had virtually no access to markets, which were mainly located in the GOS-held towns. Some traders did manage to sneak into SPLM areas but they did so at great risk and thus charged exorbitant prices for their goods. This means that people were not able to secure essential items such as soap and salt which affected hygiene and thus health. It also meant that there was no way to trade cattle for grain in poor agricultural years or grain for livestock when surpluses existed as a hedge for the future. People could not buy clothing and blankets and therefore were not protected from the cold winter months. Lack of proper clothing also prevented many girls from attending school. Women could not purchase jerry cans to collect water and had to use heavy clay pots, adding to their workloads (Office of the UN RC/HC, 2002a:32).

Besides people, the war had a significant effect on the environment. The fact that very little terrace cultivation was practised and that many areas, particularly in SPLM controlled territory, were and still are very overcrowded has led to the leaching of minerals from the soils, which in turn has caused increasing levels of iodine deficiencies and high incidence of goitre. The cutting down of trees for building and firewood and the crowding of goats and cattle on the slopes has also had a negative impact on the environment (Office of the UN RC/HC, *ibid.*:33).

The war was characterised by serious violations of international human rights and humanitarian principles. In many cases civilians were the prime targets of the violations. Raids on villages, farms, settlements and households, expropriation of livestock, abductions, systematic rape, killing and maiming of civilians including the use of landmines, were reported in the region and thoroughly documented by external observers (cf. African Rights, 1995). During the second part of the 1990s the conflict in the Nuba Mountains started to attract widespread international attention both because of the reported human rights violations and because of the blockade on humanitarian assistance imposed by the Government of the Sudan (GoS) on the population living in SPLM controlled areas. In GoS controlled areas people had access to external assistance including food relief throughout the 1990s.

2.3 Changes in food security levels and resilience of food systems

2.3.1 The changes in food security levels over the 1990s in GOS and SPLM areas

The main repercussions of the long years of armed conflict with its consequent displacement of population and destruction of infrastructure have been felt in the agriculture and livestock sectors and thus in the food security situation. Production itself has been affected by conflict and the previously existing agricultural and livestock support services have been eroded to the extent that they now barely exist. Pests and diseases affecting both animals and crops are an unwanted consequence of this (Office

of the UN RC/HC, 2002a:27). Land use patterns have changed, pushing an increasing number of people into distress cultivation on the mountains slopes, especially in SPLM controlled areas, where a clear relation between the emergence of intensive production systems and the security situation can be observed (Manger, 1994:10).

Land holdings have significantly reduced. In the fertile government controlled areas of eastern South Kordofan State, where holdings have always been bigger than the rest of the region, also because of the lower population pressure, IFAD (2004a I:53) estimates that the average cultivated area has decreased from 34.9 *feddans* (and a maximum of 148) in 1985/86 to an average area of 30.4 *feddans* (and a maximum of 127) in 2002/03. In 2000 in the surplus area of El Buram, original villagers were cultivating 3-5 *feddans*, while displaced households only had access to a home garden (*jubraka*) of 0.5-1 *feddan*, leading to food shortages for 60-70% of the total village households (IFAD, 2000:10).

Crop production has also decreased and the ratio between production and consumption has sharply changed in GOS areas. The table below compares data extrapolated from the South Kordofan Rural Planning Unit (SKRPU) for 1980 and from IFAD for 1997/98.

Table 5. Per Capita Staple Grain Deficit/Surplus in GOS areas

	1980	1997/98
Average per capita production (kg)	187	103
Average per capita consumption (kg)	139	130
Staple Grain Balance (kg)	47	-27

Source: SKRPU, 1980 6:127; IFAD, 2000 I:17⁸.

In the SPLM areas, the amount of land cultivated and the yield per *feddan* has decreased for all crops since the war started. The table below shows the trend for sorghum.

Table 6. Trends in crop production (sorghum) in SPLM areas

Average household	Pre-war	1999	2001
Land cultivated (<i>feddans</i>)	5-7	1-3	½ -1
Yield of sorghum per <i>feddan</i> (90 kg sacks)	4-5	2-3	1.5-2.5
% total energy requirement available to HH (if all eaten)	190%	27%	11%

Source: Office of the UN RC/HC, 2002a:27.

Table 6. above shows that prior to the conflict the average household was able to secure almost double its food needs from sorghum alone. This allowed a household many options in terms of trade and also meant that there were plenty of labour options available for poor households. By 1999 production had decreased substantially but most households could still meet about 1/3 of their needs from sorghum consumption, with other needs being met from other food sources. However, by 2001 both yields and the amount of land available had decreased even further, mainly because of insecurity preventing access to land on the plains and because of the resulting increased competition for land on or near the slopes. The decline in yields was undoubtedly due to decreasing soil fertility as 2001 was a very good year in terms of rainfall (Office of the UN RC/HC, *ibid.*). Farmers reported to a UN assessment mission that they no longer

⁷ SKRPU data refer to 70% of current Southern Kordofan State. However, the areas not included in the analysis are the eastern provinces, which usually have higher productivity than the State average.

⁸ IFAD household data assumes an average household size of 10 (IFAD, *ibid.*:15).

left fields fallow or rotated crops and therefore the variety and the quantity of crops grown had decreased. The increased competition over land and the abandonment of the 'shifting cultivation' pattern was a direct result of the displacement of communities from the plains and the insecurity which obliged them to farm not too far from their home bases in the mountains (Office of the UN RC/HC, *ibid.*).

Livestock holdings in the region also decreased significantly as a result of conflict. UN data (Office of the UN RC/HC, *ibid.*:28) estimated that in SPLM areas holdings had dropped by at least 60-70% from pre-war levels, with significant losses being observed in GOS areas as well. Of those households in SPLM areas who still have livestock, an average holding seems to be around 0-1 cattle, 3-4 sheep/goats and a few chicken. Most households lost all cattle, both because insecurity in the plains made access to pasture land and water points, essential in the dry season, very difficult, and because of the limited access to livestock drugs in areas where fighting was most intense. Looting of cattle has also been a common feature of the conflict. Since large holdings of cattle acted as a target, an increasing number of families chose to keep their herds very small by increasing livestock offtake. This has had implications for livestock production, particularly milk for children, but also undermined coping strategies as cattle were traditionally considered a vehicle to preserve wealth as they could be traded for grain in poor harvest years (Office of the UN RC/HC, *ibid.*).

The tables below summarise main changes in livestock holdings as a consequence of the conflict in two sample areas in SPLM and GOS controlled territory.

Table 7. War related changes in livestock holdings, Ngorban County (SPLM areas)

Economic status	No. Cattle			No. Shoats			% in community		
	Pre-conflict	1999	2002	Pre-conflict	1999	2002	Pre-conflict	1999	2002
<i>Rich</i>	50-100	4-10	4	35-50	6-10	5	35-45	6-14	10
<i>Middle</i>	30-50	2-3	2	20-30	4-6	3	18-30	15-20	15
<i>Poor</i>	10-20	0-1	0	10-20	1-3	0	22-30	25-35	75
<i>V. poor</i>	6-10	0	n.a.	6-10	0	n.a.	6-14	36-49	n.a.

Adapted from UNCERO, 1999:70; CARE, 2002:14

Table 8. War related changes in livestock holdings, Dilling Province (GOS areas)

Economic status	No. Cattle		No. Shoats		% in community	
	Pre-conflict	1999	Pre-conflict	1999	Pre-conflict	1999
<i>Rich</i>	200-300	4-8	50-100	10-20	40-52	13-20
<i>Middle</i>	50-100	3-7	30-50	2-7	30-38	30-35
<i>Poor</i>	10-20	0	10-25	0	15-25	45-55

Adapted from UNCERO, 1999:81

The migration pattern of cattle has also changed. Prior to the war cattle were taken to the northern areas of South Kordofan State and to North Kordofan during the rainy season to protect them from tsetse fly and to look for good pasture and water. During the conflict, insecurity forced people to stop transhumance and to keep their cattle with them at all times. In SPLM areas livestock were reared within village environs, in and

around the base of the hills, giving rise to problems of deforestation and increased competition for water sources. Diseases, lack of veterinary care, including vaccinations, and limited pasture and water sources because of insecure access to the plains have contributed to increase livestock losses over the 1990s.

Changes in relative wealth have also been shown to be significant since the conflict began both in GOS and even more acutely in SPLM controlled areas. Wealth ranking exercises based on crop production, livestock and land holdings show that there has been a complete reversal in wealth categories. In Norgoban County perceptions of those falling into the category of being 'better off' stood at 40% prior to the onset of conflict and had collapsed to just 10% in 1999. On the other hand the percentage of very poor increased from 10% to 42.5% in the same period. In GOS controlled Dilling the rich were perceived to number 46% pre-conflict and this fell to just 16% by 1999 while the numbers of poor had increased from 20% to 50%.

Figure 1.

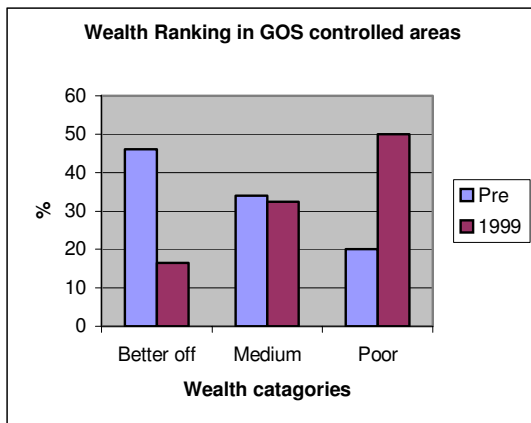
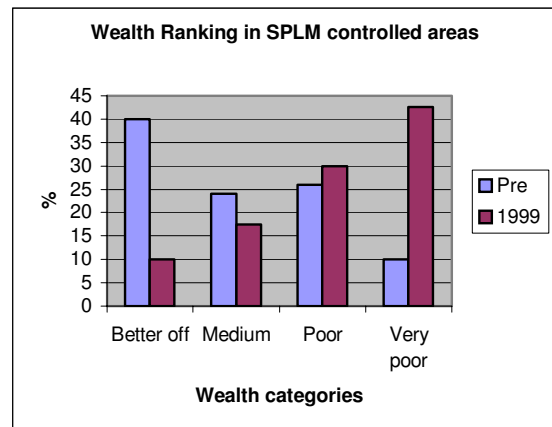


Figure 2.



Data adapted from UNCERO, 1999:70; 81

2.4.2 Indigenous coping mechanisms and the response to external pressure

The net result of the lack of economic opportunity and the pressure on farming and livestock holdings caused by the conflict has been that achieving food security has long been a struggle for most households in the Nuba Mountains, particularly in the months preceding the main harvest. People are attuned to finding ways of getting over problems associated with a shortfall of the cultivated foodstuffs such as sorghum and maize that are central to the diet. Gathering fruits and wild leaves is extensively practiced and since the inception of the conflict there has been an increase in the importance of wild plants as source of food. Nuts, fruits, *Acacia* gums, grass grains and tubers have been widely used by the Nuba population during the conflict, although insecurity greatly limited their collection in parts of the region. Wild foods were mainly collected during the dry season, with yields stored and carried into the rainy season, and were used for household consumption, marketing or barter.

In 2002 a joint UN/NGO assessment with government and SPLM humanitarian counterparts observed that in the Nuba Mountains the market for gathered foods, fruits, kernels, leaves and roots was thriving (Office of the UN RC/HC, 2002f:154). Some of

the products such as *ardeb* (*Tamarindus indica*), *tabaldi* (*Adansonia digitata*), *nabak* (*Ziziphus spinacristi*) and *lalob* (*Balanites aegyptiaca*) were taken by traders to Khartoum and even exported to other countries. Men, women and children were all involved in the collection of the fruits, though this has traditionally been predominantly a women's task. Much of the produce would be used for barter, either for imported goods or for grinding sorghum. In 2002 1 *malwa*⁹ of *gongolese* (*Adansonia digitata*) could be exchanged for 1 lb of sugar or 0.16 kg. of coffee (Office of the UN RC/HC, *ibid.*). Alternatively, the fruits could be sold for cash.

Table 9. Wild foods most commonly sold in the Nuba Mountains

Scientific name	Arabic	Type	Quantity	Price Ls.
<i>Adansonia digitata</i>	Gongolese	Fruit	1 sack	60,000
<i>Balanites aegyptiaca</i>	Lalob	Fruit	1 <i>malwa</i>	1,200
<i>Balanites aegyptiaca</i>	karnaca	Kernel	1 <i>malwa</i>	3,000
<i>Borrasmus ethiopicus</i>	doleib	Fruit	1	250
<i>Borrasmus ethiopicus</i>	doleib	Shoot	1	250
<i>Corchorus olitorius</i>	mulokiya	Leaf	Bundle	250
<i>Diospyros mesphilliformis</i>	jugon	Fruit	Handful	1,250
<i>Grewia mollis</i>	bagham	Fruit	Handful	250
<i>Grewia tenax</i>	gadem	Fruit	1 sack	60,000
<i>Gynandropsis gynandra</i>	tamalieka	Leaf	Bundle	250
<i>Hyphaene thebiaca</i>	dom	Fruit	5 pcs	500
<i>Lamnaea cornuta</i>	moleita	Leaf	Bundle	250
<i>Philosigma reticulatum</i>	kharroub	Potash	100g.	250
<i>Portulaca oleracea</i>	rigila	Leaf	Bundle	250
<i>Senna augustifolia</i>	kawal	Fermented leaf	Half handful	
<i>Sesum augustifolium</i>	weka	Fruit	1 <i>malwa</i>	1-2,500
<i>Tamarindus indica</i>	ardeb	Fruit	1sack	45,000
<i>Vitex sp.</i>	umtagulgul	Fruit	double handful	1 250
<i>Ximenea amaericanum</i>	Abu khamir/medika	Fruit	double handful	250
<i>Ziziphus spina christi</i>	nebak	Fruit	1 sack	50-60,000

Source: Office of the UN RC/HC, 2002f:155.

Collection of wild foods has not been the only coping mechanism used by Nuba people in SPLM controlled areas during the conflict and its immediate aftermath. A small amount of mudfish is also available in September and October when the seasonal stream are filled with water. Hunting of wild game used to be practiced, but its incidence has reduced since the beginning of the conflict. In some areas charcoal making has also been prominent, although this activity is more significant in GOS held areas where there is more access to woodland on the plains. Prior to the war casual labour opportunities in towns, agricultural schemes and northern markets were an important strategy to cope in times of food stress, particularly during the hunger gap (May – August). However, the isolation of people in the SPLM areas during the conflict restricted practice of this use of local labour markets, where the type of work available included cultivation (which on the hills required higher amount of labour than in the plains), building, collecting water, preparing food and portering (NFSWG, 2001:10). Kinship support has also traditionally

⁹ One *malwa* is equivalent to 3.3 kg.

been a key element of the resilience of the Nuba system, understood as the capacity of the system to absorb shocks and adapt to the changes it has been undergoing so as to still essentially retain the same functions, structures, services and knowledge. In SPLM areas during the conflict the chiefs of a community would collect up to 90kg of cereals from the medium and rich wealth groups after the harvest. The food would be handed over to the Country Administrator who would store it for distribution to the displaced, the returnees, the poor and the very poor during the hunger gap. The contribution of the better off would be voluntary, with each household determining the amount to contribute (UNCERO, 1999:75). The table below illustrates the estimated percentage contribution of major food sources to the annual average diet of the poorest households in the sample county of Nogorban in SPLM areas.

Table 10. Percent annual food distribution for the poor and the very poor in Nogorban County (SPLM areas)¹⁰

DESCRIPTION	JAN.- APRIL	MAY – AUGUST	SEPT-DEC
Own crops	25.7%	4.4%	29.8%
Wild foods	4.3%	5.4%	2.4%
Petty trade and exchange	0.5%	2.2%	1.2%
Fish	-	-	2%
Livestock products	-	0.2%	-
Food from labour activities	-	4.8%	2.4%
Kinship support	0.5%	1.5%	-
TOTALS	31%	18.5%	37.8%
Annual Surplus	-	-	4.8%
Annual Deficit	2%	14.5%	-

Source: UNCERO, 1999:75.

In the GOS controlled areas, during the conflict, coping strategies in the rainy season included consumption of wild leafy vegetables and various tree leaves and migration for agricultural labour, mainly weeding on mechanised farms. During the dry season many people migrated to towns and to mechanised farms to seek employment, leaving the old and some women behind. Women would also go to Kosti, Abu Jibeha and other towns and work as maids or be engaged in any other available employment. Reduction in the number of meals per day, especially in the “hungry gap” period from May to September was common. Cutting trees for firewood, poles for building and for charcoal making were all widely practised, causing widespread destruction of natural tree cover and leading to a reduction of infiltration of rainfall, which in turn was responsible for flash flooding and soil erosion. Kinship support mechanisms were also used, but as the conflict had impoverished all wealth groups, there was little surplus for people to share (UNCERO, 1999:83). However, food aid from international agencies was available to people in GOS areas throughout the conflict to help them maintain an acceptable food security level.

In the SPLM areas, conversely, the Nuba population received only negligible food aid from a small number of international NGOs which were willing to defy the imposition of the humanitarian blockade imposed by the government on SPLM controlled areas (see 3.1). Such agencies operated through local institutions, the capacity of which was severely

¹⁰ The disaggregated totals refer to the overall annual requirement subdivided equally over three periods, i.e. 33% required food for each period.

limited to assist the very high number of food insecure people living in SPLM areas. An assessment by the Nuba Food Security Working Group conducted between February and May 2001 estimated that 84,500 people in the region were destitute and lived on a day-to-day basis, with life threatening hunger looming on them during the hunger gap period in the rainy season (NFSWG, 2001:18). The report, prepared by a number of Nuba officials and international food security experts, played a crucial role in supporting the advocacy campaign which led to the end of the humanitarian blockade in SPLM areas and to the signing of the Cease-Fire Agreement in Burgenstock in January 2002.

2.4 The institutional context's response to livelihoods vulnerability

During the conflict the level of food security related responses undertaken by local institutions was very limited. In SPLM/A areas the Civil Authorities developed a welfare strategy which envisaged local purchase of grain and seeds for distribution to the 'most needy' households to supplement other sources of food. The strategy only covered people who were facing the risk of extreme malnutrition that could lead to death or forced migration. The Civil Authorities, an elected body, represented the organs of local government equivalent to decentralised government departments or ministries.

Most of the assistance was though brought in and provided by the Nuba Rehabilitation, Relief and Development Organisation (NRRDO), a local NGO set up in 1995 (with strong ties with the SPLM/A and the Civil Authorities) which enjoyed funding and technical support from a variety of international donors and organisations. NRRDO also undertook limited extension programmes for farmers, but the extent and the quality of both the food relief provision and the agricultural technical support remained extremely limited. NRRDO played a crucial role in discouraging international organisations from delivering excessive quantities of food aid in the area in the wake of the cease-fire and advocated for local purchase of food and seeds as much as possible. In this regard, NRRDO played a crucial role in shaping the design of the Nuba Programme Advancing Conflict Transformation (NMPACT) and its food security strategy (see 4.3).

In government areas the local Ministry of Agriculture relied heavily on the provision of food aid by WFP and other international and national organisations such as the Sudanese Red Crescent (SRC), WFP's main implementing partner in the region, to address the needs of IDPs as well as local communities. The quality of the extension services of the Ministry had been progressively deteriorating over the years and qualified and committed personnel could be found in several parts of the Nuba Mountains sitting idle in the local branch offices of the Ministry devoid of resources to support the local population in their farming or livestock keeping efforts. International assistance in terms of food aid though came to a halt at the end of the 1990s. WFP stopped its operation in the area as a result of the killing of four staff members in June 1998. The agency had been criticised for only assisting populations in GOS areas because of the government ban on delivering aid to SPLM/A area. This approach was believed to be encouraging population movement from SPLM areas into GOS areas. The incident sparked much debate amongst international organisations, many of which later decided to withdraw from government controlled areas until the government agreed to lift its ban on aid delivery to SPLM areas, while others started operating in SPLM areas without permission.

It is important to remark that local authorities on both sides always emphasised that security issues were the primary cause of livelihoods insecurity in the region, which had traditionally been characterised by food surplus in the years before the conflict. In this

regard, the cease-fire that was finally brokered in 2002 brought tangible improvements to the quality of life of the people in the Nuba Mountains because increased security allowed people increased access to land and improved trade and access to markets. The concerted action of a number of national and international agencies in supporting livelihoods rehabilitation and strengthening the local food economy in the months following the signing of the cease-fire proved crucial in averting a food security crisis in different areas of the Nuba Mountains.

3. THE NUBA MOUNTAINS IN THE CONTEXT OF THE EMERGENCY RESPONSE IN THE SUDAN

3.1 Analysis of the evolution of external interventions in the Nuba Mountains over the 1990s

Following the escalation of the conflict in 1989, the Government of the Sudan expelled all international NGOs from the Nuba Mountains in 1991 while at the same time intensifying the offensive against the SPLM/A. Soon afterwards the government imposed a blockade on any relief supplies entering any area under SPLM/A control. The decision was unprecedented in the Sudan, since all other areas under SPLM control were covered by the Operation Lifeline Sudan, which distributed relief supplies from its operational base in Kenya¹¹. Aid was though allowed in government controlled areas, particularly in support of the government controlled 'peace camps' where Nuba people were forcibly relocated *en masse* out of the Nuba Mountains. The massive forced relocation of the Nuba led human rights organisations to denounce the government policy in the Nuba Mountains as one of 'ethnic cleansing' (African Rights, 1995:120). Camp occupants included people enticed into government held towns, particularly through the offer of food aid which was unavailable on the hilltops controlled by the SPLM/A, people abducted by government forces or people living in SPLM/A controlled areas overrun by the government (African Rights, *ibid.*:121). The UN estimated that by 1999 there were 72 peace villages in South Kordofan State, with an estimated population of 173,000. UN agencies and a very limited number of NGOs provided assistance to about 105,000 people in 41 peace villages, which were identified as the most vulnerable amongst those affected by displacement (United Nations, 1999).

The humanitarian blockade and the work of humanitarian agencies in government controlled areas of the Nuba Mountains during the 1990s attracted the criticism of several human rights organisations (Minority Rights International, African Rights, Africa Watch, Human Rights Voice, Amnesty International and Justice Africa amongst others) and sparked much debate within the humanitarian communities in Khartoum and Nairobi. The aid provided by the agencies in GOS areas was seen as instrumental to the government policy of depopulation of the areas under SPLM/A control and consequently as a factor in the conflict. The situation was aggravated by the fact that government soldiers and allied militia in the Popular Defence Force (PDF) had taken to harass or even kill civilians caught transporting medicines or food into SPLM areas (Rahhal, 2001:52). UNICEF, which led OLS in SPLM controlled areas, was seen as not doing enough to challenge government policy and to protect vulnerable civilians, particularly women and children, something that human rights organisations found unacceptable on the part of the world agency mandated to protect women and children (African Rights, *ibid.*:332). UNICEF, on the other hand, felt that if it challenged the government on the issue of the Nuba Mountains, this could have jeopardised UN programmes elsewhere in the Sudan, both North and South. Other agencies like WFP, CARE and later UNDP were sharply criticised for their involvement in the peace villages (African Rights, *ibid.*:333).

¹¹ Later on the blockade was extended to SPLM controlled areas in southern Blue Nile and to National Democratic Alliance (NDA) controlled areas in Eastern Sudan. In both cases, though, the population affected by the blockade was considerably smaller than that of the Nuba Mountains and in both areas people had the possibility of moving cross-border to other countries to obtain supplies, something which was not possible in the Nuba Mountains. Several international agencies were also able to set up logistical bases in border countries to deliver unauthorised aid to the affected populations in the two regions.

The blockade to humanitarian assistance in SPLM areas lasted for more than ten years whilst assistance to government controlled areas continued unabated throughout the 1990s, though for most agencies interventions were mainly restricted to emergency activities such as food aid and seeds and tools distribution, support to Primary Health Care (PHC) and water provision near the main towns, where the security situation was better. Table 12 shows the agencies involved in the GOS areas of South Kordofan in 2000 and their main activities. Activities in the food security sector are listed in bold.

Table 11. Humanitarian interventions in GOS areas in 2000

Agency	Main activity
National	
AMA	Handpumps rehabilitation; basic education; distribution of school material; seeds and tools distribution
<i>Dawa</i>	Basic education
IARA	Clinic
<i>El Bir</i>	Hospital support; PHC training; basic education; school feeding; seeds distrib.; vet campaigns; reproductive health; youth/♀ support
SIDO	Basic education
SCC	Food aid distribution; seeds and tools distribution
SRC	Immunisation campaigns; PHC training; school feeding; seeds and tools distr.
Intl.	
CARE	Environmental sanitation (ES); handpumps construction and rehab; boreholes
DED	Schools rehab; ♀ vegetable gardens; ♀ income generation; ♀♂ awareness; community dev.; conflict transformation; institution building; youth programmes
FAO	Seeds and tools distribution
FAR	Environmental sanitation; <i>hafirs</i> and handpumps construction and rehab
Global 2000	Filters distribution; integrated disease control; emergency medical kits distribution; Guinea Worm eradication; health education and promotion
SC-US	ES; handpumps construction and rehab; essential drugs distribution; emergency medical kits distribution; Expanded Programme of Immunisation (EPI); food aid distribution; seeds and tools distribution; ♀vegetable gardens
UNDP	Handpumps construction and rehab; adult literacy; schools rehab; health infrastructure rehab; community farms; goats distr.; seeds and tools distrib.; livestock development; storage infrastructure; vet campaigns; ♀vegetable gardens; ♀♂ awareness raising; community development; conflict transform.; institution building; income generation; micro-finance; small scale industries
UNICEF	ES; filters distrib.; handpumps construction and rehab; basic education; schools materials distrib.; schools rehab; teacher training; clinic; integrated disease control; essential drugs distrib.; emergency medical kits distrib.; EPI; Guinea Worm eradication; health education and promotion; health infrastructure rehab; PHC training; health services development; seeds and tools distrib.; ♀ income generation; ♀♂ awareness raising; reproductive health; community development; institution building
WFP	Food aid distribution
WHO	Integrated disease control; EPI; Guinea Worm eradication; health education and promotion; health policy and management; health services development

Source: Office of the UN RC/HC, 2000.

All the national organisations operating in the region, with the exception of the Sudan Council of Churches (SCC) and arguably the Sudanese Red Crescent (SRC), were Islamic relief agencies. Indigenous Nuba organisations complained that these agencies were using relief, particularly food aid, to control and Islamise the Nuba. More importantly, it was felt that food was being used as a magnet to force Nuba people out of the SPLM/A controlled areas with the promise of food in the ‘peace camps’ (Rahhal, 2001:52). But the work of the international agencies received criticism in equal measure, particularly in the case of the two agencies with the biggest programmes in the region, UNICEF and UNDP. Both agencies came under intense criticism by the OLS Review (Karim *et al.*, 1996) commissioned in 1996. The Review quoted the words of an aid worker who commented:

‘We have to question whether our work is pulling people from the other side (i.e. the SPLM areas). It bothers me that we are only working on the government side. I know what we are doing is supporting a government programme, building up peace villages and supporting the Popular Defence Force. This has to be balanced on the other side. We are doing good work, but there are bigger political issues that need addressing’ (Karim *et al.*, 1996:216).

The Review criticised UNICEF for promoting its Child Friendly Village Schemes in 29 villages in South Kordofan, in a context where internal warfare had placed children at great risk. The Review wondered to what extent the UN was ‘*aware of the realities facing the beneficiary populations and the degree to which development initiatives had been explicitly delinked from the political context in which they operated*’ (Karim *et al.*, *ibid.*).

The Review was even more concerned about a programme UNDP was implementing directly with GOS in the Nuba Mountains, the Area Rehabilitation Scheme (ARS) in Kadugli. The main aim of this programme was to support agricultural rehabilitation in order to tackle the problem of inadequate food production, to ‘*pave the road for sustainable development*’ and to ‘*reduce dependence on emergency assistance in areas affected by civil strife*’ (UNDP, 1996). The approach and the strategy of the ARS were intensely criticised by the OLS Review and much concern about the impact of the programme was also expressed by a number of international humanitarian workers and donors operating in the Sudan (Philippe Borel, Bernard Harborne and others, personal communication, 1999). The OLS Review observed that the objectives of the ARS included supporting the local Peace Administration to ‘*resettle returnees in peace villages and then promote agricultural development to strengthen their attachment to land*’ (UNDP, 1996:1 quoted in Karim *et al.*, 1996:217). The OLS Review Team concluded that given that the Nuba had been dispossessed of their land, the strategy suggested a disturbing ignorance of local realities and that the programme represented a ‘*de facto accommodation by the UN with disaster-producing policies of the government*’ (Karim *et al.*, *ibid.*).

Throughout the 1990s the international responses in the SPLM controlled areas was essentially limited to a restricted numbers of international NGOs funding the main indigenous organisation operating in the area, the Nuba Relief, Rehabilitation and Development Organisation (NRRDO), which was largely unable to meet the acute needs of the local Nuba population, which became progressively more food insecure as shown in 2.3.1 and 2.3.2 above.

The increasing use of humanitarian aid as a weapon of war as with the blockade of assistance to the SPLM/A areas and the experience of UNICEF and the UNDP ARS in GOS areas highlighted the need for a more conflict sensitive approach to programming

in the region. Towards the end of the 1990s, the Office of the UN Resident and Humanitarian Co-ordinator (UN RC/HC) for the Sudan took it upon itself to try and develop a co-ordinated response for the region, after a period when it promoted intensive efforts to gain access to the SPLM controlled areas. After years of high-level pressure, which included the involvement of the UN Secretary-General himself in 1998, with an *impromptu* visit to Khartoum, the UN was finally granted access by the Government of the Sudan to the SPLM areas to make an assessment in 1999, though a proper humanitarian intervention did not begin until 2002.

The findings of the 1999 inter-agency mission, which visited both SPLM and GoS controlled areas, emphasised that assistance to the Nuba Mountains population be best provided through a comprehensive, multi-sectoral, multi-agency rehabilitation programme addressing both SPLM and GoS-controlled areas, implemented outside the Operation Lifeline Sudan (OLS) structure, both for reasons of expediency, given the government's strong opposition to extending OLS to the Nuba Mountains, and to identify a response that was more appropriate to the Nuba Mountains context. The political and security situation in the Nuba Mountains prevailing at the end of the 1990s was such that a humanitarian response was required that took into account the difficulty of operating in a complex political environment where humanitarian aid was being used as a weapon in the conflict. Notwithstanding the difficulty and the reluctance of some of the partners in experimenting with a new humanitarian approach in the Sudan, it had become apparent to many of the actors involved that only a concerted effort based on policy dialogue with the parties to the conflict and with key external players could have unblocked the impasse around the provision of humanitarian assistance in the region.

3.2 The Nuba Mountains Programme Advancing Conflict Transformation: key features

Following the 1999 assessment, a consultative process with a wide range of international NGOs and UN agencies with interest in the Nuba Mountains was started at the end of January 2000 under the leadership of the Office of the UN Resident and Humanitarian Co-ordinator, to design the Nuba Mountains Programme (NMP) Umbrella Document.

The process was highly inclusive and several meetings were held with all partners involved in the Nuba Mountains, Khartoum and Nairobi with the aim of building a common platform amongst actors, both national and international, who had long been working on the opposite side of the political divide. After a year-long consultation process with programme partners, a joint programme document was endorsed in May 2001, where emphasis was placed on the development of a set of principles of engagement to be adhered to by all agencies. The implementation of the NMP was however hindered by the stalemate over the issue of access to SPLM controlled areas, which continued to be denied by the government despite repeated promises to the highest levels in the UN. The NMP agencies therefore decided to focus their efforts on advocacy directed at western diplomats to facilitate unblocking the humanitarian impasse in the Nuba Mountains, particularly in light of the fact that a food security crisis was maturing in SPLM controlled areas.

The advocacy action was a major factor in catalysing senior diplomatic interest that in January 2002 resulted in the brokering of a Cease-Fire Agreement (CFA) between the Government of Sudan and the SPLM. The NMP consultation process was extended to

all the agencies with an interest to operate in the Nuba Mountains region and benefited from the strong involvement of Nuba partners from various civil society organisations who helped shape the design of the programme. The new initiative came to be known as the Nuba Mountains Programme Advancing Conflict Transformation (NMPACT). NMPACT was designed as a phased, multi-agency, cross-line programme aimed at enabling all stakeholders to contribute to a Nuba-led response to address the short and long term needs of the people of the Nuba Mountains. Its overall strategic goal was, and remains: *‘To enhance the Nuba people’s capacity for self reliance within a sustained process of conflict transformation guided by the aspirations, priorities and analyses of the Nuba people themselves’*. As specified in the strategic goal, the primary target groups of the programme were the Nuba communities, especially in areas of greatest needs. NMPACT recognised the importance of involving all peoples living in the Nuba Mountains area in the programme and of providing opportunities for their participation. However, given the focus of the conflict and the historical marginalisation of Nuba communities in the region, the overall goal was formulated to give special emphasis to the Nuba people’s role in guiding the programme (Office of the UN RC/HC, 2002b:3).

The programme constituted a major breakthrough in that it became the first and only programme to be subscribed to by both the Government of Sudan and the SPLM while the conflict was still in an active state. The GoS Humanitarian Aid Commission (HAC) and the SPLA/M Sudan Relief and Rehabilitation Association (SRRA) - later renamed the Sudan Relief and Rehabilitation Commission (SRRC) – were included as equal partners in the NMPACT Co-ordination Structure together with an international Programme Co-ordinator. Such an institutional set up was unprecedented in the Sudan’s humanitarian context, where the two official counterparts were perceived to be unhelpful at best and generally obstructive. However, the full involvement of HAC and SRRC in the co-ordination structure gave them a strong sense of ownership of the programme, towards which they consistently showed strong commitment and interest in facilitating its speedy implementation. The Co-ordination Structure was also made up of field co-ordinators in both the GOS and the SPLM areas who worked equally closely with their respective HAC and SRRC counterparts. Many regard the involvement of the warring parties in a single programme and the cross-line focus of the initiative as the most significant achievements of NMPACT (Office of the UN RC/HC, 2003:11).

The extensive consultation process that had accompanied its development produced a large amount of consensus. By the end of 2003, nine UN agencies, 16 international NGOs (INGOs) and 24 national NGOs (NNGOs) were on-board and had endorsed the programme. Seven of the partners took an active role in becoming Sectoral Focal Points for the NMPACT programming sectors, which included: Agriculture and Food Economy, Education, Health and Nutrition, Water and Environmental Sanitation, Livelihoods Rehabilitation and Peace Building. The Sectoral Focal Point displayed different levels of commitment and leadership, but overall provided invaluable technical inputs to the Co-ordination Structure. Last but not least, the Co-ordination Structure was able to benefit from the technical support of two advisors specialised respectively in Agriculture and Food Economy and in Land and Natural Resource issues who were assigned by USAID to support the implementation of NMPACT.

The extensive consultation process undertaken to design NMPACT also actively involved a high number of donors in drawing up the programme framework. This approach proved to be extremely useful in gaining the buy-in of the donors from the start and to ensure that key elements of the programme be funded as implementation

began. Although funding gaps remained important for some agencies, particularly within the UN family, the level of funds allocated to NMPACT partners was highly significant, totalling in excess of USD 18 million in its first year of implementation (Office of the UN RC/HC, 2002c).

The highly participatory approach adopted by NMPACT was reflected also in the design of a policy making structure that would support the Co-ordination Structure in orienting collective decision-making. A mechanism was created that allowed all implementing partners (i.e. all participating Community Based Organisations – CBOs, NGOs, donors and UN agencies together with the official counterparts HAC and SRRC) to meet systematically at a neutral location in the Nuba Mountains in what was called the ‘NMPACT Partners’ Forum’. The Partners’ Fora were a crucial element in the strategy promoted by NMPACT to advance local ownership and conflict transformation (see 4.5 below).

3.3 The OLS lessons learned and its application to the NMPACT framework

The proposal of a single cross-line programme formulated by the inter-agency assessment mission in 1999 was unprecedented in the context of humanitarian response in the Sudan and as such required the buy-in of the two warring parties as well as the other partners involved. OLS had been operating for more than a decade with two separate structures in GOS and SPLM controlled areas and there was a high level of mistrust between the international organisations working on the two sides of the political divide, let alone the parties at war. Nonetheless, the mission report had showed very clearly that the Nuba Mountains region lent itself well to experimentation with a new model of external assistance that attempted to bridge the political divide and foster reconciliation between communities at the grassroots level. Besides this, it was clear that a single, co-ordinated operation would have maximised the benefits of aid for the local population as costs would be greatly reduced.

The task of lowering the level of suspicion between the warring parties and the international partners working on the two sides of the political divide proved to be a major obstacle in itself and required a considerable investment in staff time on the part of the Office of the UN Resident and Humanitarian Co-ordinator and the personal involvement of the UN Resident and Humanitarian Co-ordinator himself to ensure that the consultation process was genuinely participatory and that consensus around the initiative was maximised amongst the potential partners. Plans were re-adjusted several times but the strong involvement of Nuba partners from various civil society organisations in the design stage with support from various international development partners led to the formulation of the NMPACT framework, which with its primary focus on supporting national ownership of all humanitarian interventions in the Nuba Mountains was successful in attracting the interest and the participation of a high number of national and international actors in the programme.

NMPACT was able to capitalise on the lessons learned from Operation Lifeline Sudan and to build on the criticism that this had received from various quarters (Karim *et al.*, 1996; African Rights, 1997). OLS was developed as an access mechanism to allow a rapid response to a critical humanitarian crisis in the South at the end of the 1980s, and it then gradually became an umbrella for co-ordinated programming as well, while NMPACT set out from the start as a joint co-ordinated programming framework. The main lesson

learned from the OLS was obviously to transcend the North/South divide and to establish one single, co-ordinated cross-line initiative. NMPACT therefore constituted a departure from the mode of co-ordination offered by the OLS in that it was the first substantial attempt to bridge the long-established division between agencies based out of Khartoum and Nairobi. The change in approach enabled the programme to attract the involvement of a high number of NGOs, many of which had refused to join OLS and which were not part of its Consortium. By the end of 2003 only two NGOs operating in the Nuba Mountains (Medicins Sans Frontieres and Samaritan's Purse) had not subscribed to the programme along with the International Fund for Agricultural Development (IFAD), which developed a large scale programme in government areas only and decided to remain outside the NMPACT framework, although all the three agencies liaised closely with the NMPACT partners, attended the Fora and provided the partners with logistical support when needed.

The Co-ordination Structure designed by NMPACT departed from the OLS model also in the way it involved the official government and SPLM counterparts. Relations between OLS and its humanitarian and political counterparts had often been strained, both in the North and in the South, with the government and the SPLM frequently being obstructive and displaying dissatisfaction for the operation (Karim *et al, ibid.*:35-41). The NMPACT strategy of fully involving HAC and SRRC together in the co-ordination and implementation of the programme proved to be winning. By working together around a common platform HAC and SRRC neutralised each other's more extreme positions and engaged with the international partners in a very constructive manner. Bringing together key actors working on the two sides of the political divide into the programme helped in creating a new environment of trust and collaboration that spilled over to other areas of assistance in the Sudan.

Another distinctive difference between NMPACT and OLS was that co-ordination was based upon a set of principles of engagement (see 4.1 below). These principles were developed by the NMPACT partners and Nuba representatives and provided a solid programmatic framework. It was felt by the partners that co-ordination would be more efficient and better informed if the parties and the partners committed themselves to respect a series of principles in the implementation of their work. The NMPACT Programme Co-ordinator would have the role of promoting adherence to the principles through specific initiatives and regularly monitoring the performance of the partners against them as work progressed.