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D. AYOD & WAAT

1. BACKGROUND[10]

Ayod District is inhabited by an estimated 80,000 Gawaar Nuer. North of Ayod lies Fangak District with a further 67,000 people of the Laak Nuer, however, due to the limited supplies that s could be sent to Ayod and Waat, Fangak was not covered by the programme. Waat has a reported population of 100,000 Lau Nuer. With an average family size ten persons per family, it is estimated that there are some 8,000 Gawaar households administered from Ayod and 10,000 Lau households administered from Waat.

The area is characterised by a sandy ridge and knolls running from north to south, either side of which stretch the flat clay plains of the "toic" and intermediate lowlands, the seasonally flooded grasslands used by the Nuer as pasture during the dry season. The ridge, known as the Duk Ridge is the eastern flood levee of the Bahr el Zeraf, which itself is the eastern boundary of the Sudd swamp. Here the people live, cultivate and graze their livestock during the rains avoiding the flooded areas to the east and west. Cultivation is tenuous as the ridge is only a few metres or even centimetres above the level of the plain and the fields are prone to waterlogging.

The Nuer are transhumant whose primary food source is livestock but for whom the cultivation of grain is an important annual activity during the rains between May and October. This year, the average farm size was found to be 2.2 feddan per household, planted mainly with sorghum. Cowpeas, maize and beans were intercropped together in small plots near the homesteads.

> *"Sorghum is planted at least three times in each wet season. A crop of quick maturing varieties is planted as early as possible, usually close to homesteads or on small patches of higher ground. Once the soil has become wet enough for easy cultivation, a second crop of taller, slower-maturing varieties is planted in larger fields. This normally provides the bulk of the crop for the year. Finally a later crop, or the same quick maturing varieties sown early in the season is planted..."*[11]

Whilst in 1988 severe flooding of the ridge caused widespread hardship, in 1989 crops in Ayod grew well although were limited in extent by a lack of seeds and tools. The area around Mogogh did not do so well, and Waat suffered crop failure due to drought. The people of the deficit zones would have relied on

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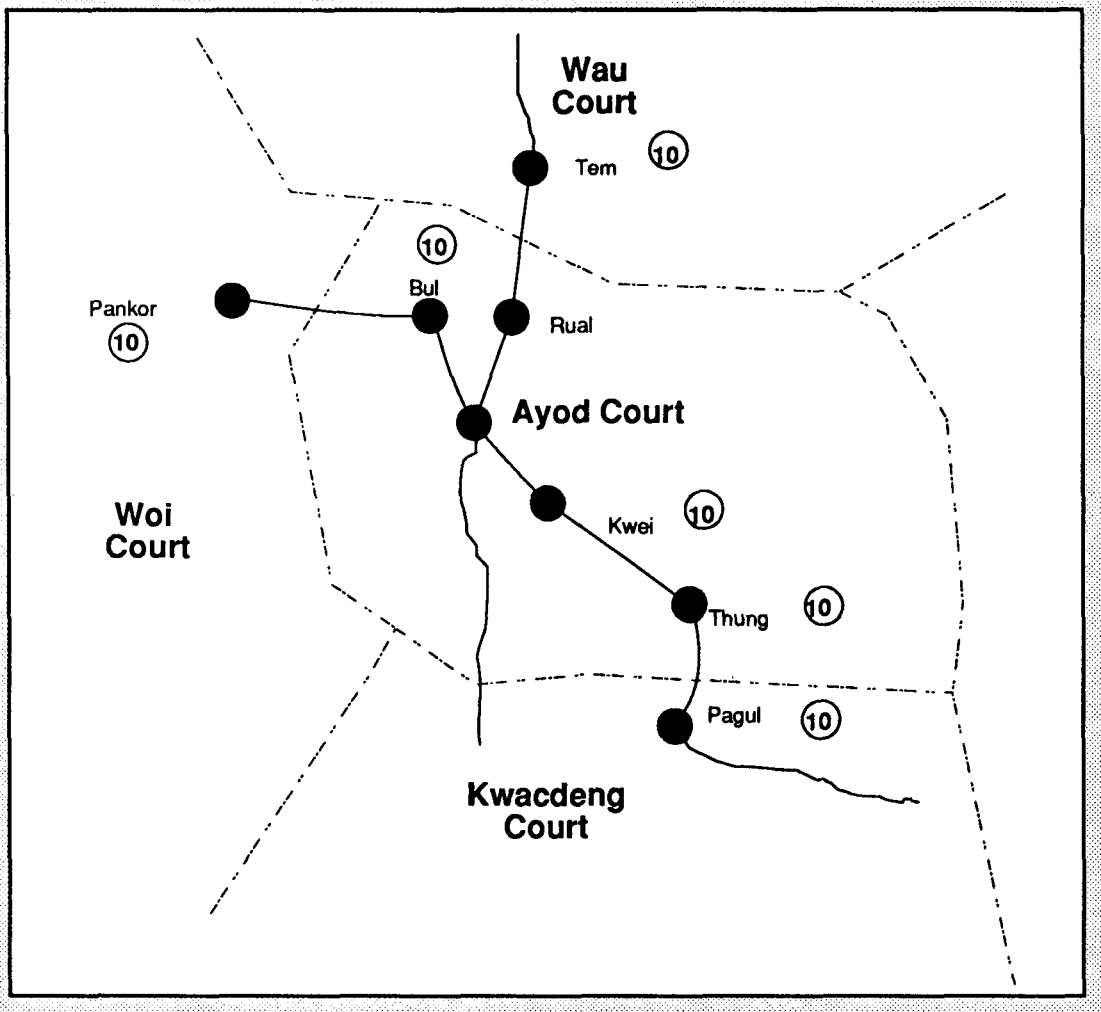
[10] For further detailed information, see Investigation into Rural Production Capability, UN/SRRA, June 1990

[11] The Jonglei Canal, Impact and Opportunity, Howell P., Lock M. and Cobb S. Eds, Cambridge University Press, 1988.

Map 10

AYOD SURVEY AREAS



10 Number of Farmers Surveyed

10 Km

Court Centre Boundary

those of Ayod to assist them, however, in January 1990 the government military convoy passed down the Duk Ridge on its way from Malakal to Juba and left in its wake burnt houses, grain stores and pillaged herds. Thus the Ayod, Fangak and Waat Nuer started the 1990 crop season less well off than might have been expected and were targeted for seed and tool inputs.

2. SURVEY TECHNIQUE

60 farmers, both men and women, were interviewed by a team comprising SRRA agriculturalists from Torit in August in six villages in addition to 7 officials. This is 50% of the court centres (ie primary centres), perhaps 7% of the villages and 10% of the populations of each village. Waat was not sampled due to time and personnel constraints and as its distribution system is considered very similar in nature to Ayod.

Due to the absence of transport and waterlogged paths, the team visited villages close to Ayod town, the furthest being some 10 km from the centre (See Map 8). However these villages represented four of the seven Courts of Ayod District. Within each village the Sub-Chief and where possible the Court President or Executive Chief were interviewed as well as ten farmers, some randomly chosen and others, it appears, choosing the survey team themselves. A major source of potential discrepancy resulted from the difficulty of translating described amounts of seeds into kilogrammes: one enumerator might be writing a cupful as 50g another as 500g.

3. THE AYOD & WAAT SEED & TOOL PROGRAMME

3.1 Arrivals

Unicef supplied Ayod and Waat with seeds and tools as a supplement to those available in the area. A total of 28 MT seed and 20,000 tools were allocated to Ayod and 16 MT seed and 3,000 tools were allocated to Waat. The first road convoy arrived in April bringing 4 MT seeds and 3,252 tools to Ayod and the full allocation of 16 MT seeds and 3,252 tools to Waat. After this the roads became impassable although several attempts were made to get trucks through. One of the major impediments to road travel is the Jonglei canal which fills with water early in the rains and which the road crosses at Puk Tap, some 80 km south of Ayod. By mid-June the Twin Otter began to airlift to Ayod, having been delayed by lack of flight permission for Ayod. The Otter flew an average 1 MT per day to Ayod and Nasir whilst also flying to all other locations in southern Sudan for OLS programmes. Due to their weight, tools were not given as great emphasis as seed on the airlift.

By the end of July it was indicated that further inputs would be of little use as the planting season was by then well past, despite the late rains of 1990. In addition, the SRRA advised that food should be sent rather than seed as there was a

danger that the seed would be consumed. In effect the amount of available local seed would indicate that there was little danger of people consuming the relief seed, unless they valued it less than their own, which is possible. Only 12 MT or 41% of the seed and 7,000 or 29% of the tool allocation had been delivered to Ayod and the remaining seeds and tools were distributed in north Bor District or remain in the store there.

TABLE 35

UNICEF INPUTS TO AYOD & WAAT

	Ayod		Waat	
Item	Pledged	Received	Pledged	Received
		MT		
Sorghum	10.0	3.29	15.00	15.00
Maize	9.4	5.65		
Beans	0	0.08		
Cowpeas	0	0.25		
Pigeonpea	0	0.05	1.00	1.00
Greengram	1.0	1.00		
Groundnuts	6.0	1.3		
Sesame	2.0	0		
Vegetables	0.09	0.12		
Total	28.49	11.74 (41%)	16.00	16.00 (100%)
		Pcs		
Malloda	9,750	3,660	1,500	1,500
Hoe	4,452	1,312		
Panga	2,056	1,848	1,752	1,752
Sickle	0	106		
Axe	9,750	0		
Total	20,358	6,926 (29%)	3,252	1,752 (100%)

3.2 Distribution Planning & Implementation

The items were received at Ayod by the SRRA representative, and placed in the school house, which doubles for a store. He then sent messages to the chiefs of the eight Court Centres, who sent representatives to Ayod. These representatives and the SRRA sat in committee every time items arrived and agreed on equitable distribution, according to population, amongst other things. Then the representatives informed the Court Presidents/Executive Chiefs who arranged groups to walk into Ayod and collect the allocation for the court. The items, once in the court centre were then divided amongst the court sub-chiefs who then divided them amongst the village headmen under their jurisdiction. The village headmen then divided the items amongst the family heads of the village. At each level the distribution attempted to be equitable, but the survey team found

that a complex order of agreements and substitutions occurred such that one court would receive more tools and another more sorghum and another more maize and the same was reflected at farmer level. Farmers who had not received at one distribution were given priority in the next and so on.

TABLE 36

	DISTRIBUTION TO PRIMARY CENTRES		
Item*	Ayod	7 Court Centres	Total
		Kg	
Maize	595	385	3,290
Sorghum	750	700	5,600
Greengram	60	63	500
Groundnut	160	163	1,300
All	1,565	1,311	10,742

*NB all other items arrived loose in bags and were distributed equally to each court chief in cupfuls.

3.3 Record Keeping

Apart from the delivery notes that come with the items delivered, no other record of receipts was found at Ayod. The distribution plan was drawn up on a scrap of paper. No stock ledgers were kept and there were no records of store issues or receipts by beneficiaries. Unicef did not provide ledgers or paper to the SRRA at Ayod and none was requested by the SRRA. Form 1 was provided to the SRRA secretary, but these were not used as he received no instructions on their use. The best use for Form 1 was found to be as cigarette papers.

The Court Presidents (or Executive Chiefs), Sub-Chiefs and Village Headmen are not in the habit of keeping written records but were able to list exactly what had been given to whom from memory. They saw no reason for needing written records as all distribution was the subject of committee meetings and therefore all interested parties were able to witness the planning process. It should be noted that no one complained of unequal treatment, even though survey interviews were confidential.

4. RECEIPTS

4.1 Percentage of Households Benefiting

The survey findings indicate that 98% of respondents received seed of some sort and 60% received tools. If one were to multiply the average receipt of 2.5 Kg by the current estimate of the population the result would be an amount nearly double that provided. We can therefore either assume sampling error induced by the proximity of sample sites to Ayod itself or an error in total population.

Respondents referred to "those who did not get" and SRRA state that those who lived within easy walking distance of Ayod may have been favoured with more of the limited supplies than those further away. This is partly put down to the fact that those who had suffered most from the depredations of the military convoy were those living in and around Ayod and others who had settled near to Ayod in order to receive small amounts of food aid from there. In addition since the chiefs *did not know* when the supplies were going to cease (ie how much they could expect in total), they gave to those in reach, planning to give to the rest from the subsequent consignment.

TABLE 37

PERCENTAGE OF FARM FAMILIES RECEIVING BY VILLAGE SURVEYED

Item	Tiem	Pankor	Boul	Pagul	Thung	Kwei	All
			%				
Maize	100	100	90	100	100	100	98
Sorghum	40	30	0	20	50	10	25
Beans	0	0	0	0	0	0	0
Cowpeas	70	0	30	20	10	90	37
Pigeonpeas	0	0	0	0	0	0	0
Greengram	10	10	0	10	20	10	10
Groundnuts	40	40	0	30	50	10	28
Vegetables	70	40	70	70	60	70	63
Seed	100	100	90	100	100	100	98
Hoe	80	50	40	20	30	90	52
Malloda	80	40	40	60	60	40	53
Panga/Axe	90	50	80	40	60	70	60
Sickle	20	10	0	10	30	0	12
Tools	90	50	40	60	60	90	60
n	10	10	10	10	10	10	60

4.2 Average Receipts

As noted, the average amount received per farm family surveyed was 2.5 kg seed and two tools and ranged from 0 - 17kg seed and 0 - 7 tools. Although most people got something, it is still unclear as to why one person was entitled to 17kg, it is assumed that it was a person representing a number of family units (wives, relatives etc.). Those who received most also seemed to be those who were able to keep or purchase most local inputs. Again this may be put down to the persons importance from which follows a large family and possibly preferential treatment. It was unfortunate that the survey did not include a question on family size and structure in order to clarify this matter, although family size is noted by some enumerators in some cases. Why did Tiem farmers get so much compared to Boul? It can only be explained by suggesting that the Tiem population is smaller than that of Boul.

TABLE 38

Item	Tiem	Pankor	Boul	Pagul	Thung	Kwei	All
	AVERAGE RECEIPTS PER HOUSEHOLD						
			Kg				
Sorghum	1.6	0.4	0	0.08	0.7	0.3	0.51
Maize	2.0	1.4	0.48	0.48	1.2	1.73	1.2
Beans	0	0	0	0	0	0	0
Cowpeas	0.98	0	0.2	0.004	0.05	0.58	0.3
Pigeonpea	0	0	0	0	0	0	0
Greengram	0.2	0.03	0	0.1	0.03	0.3	0.1
Groundnuts	1.2	0.65	0	0.18	0.36	0.05	0.4
Vegetables	0.28	0.06	0.007	0.01	0.07	0.006	0.006
All	6.26	2.54	0.69	0.85	2.41	2.97	2.52
			Pcs				
Malloda	1.1	0.7	0.4	0.2	0.3	1.1	0.6
Hoe	1.1	0.3	0.5	0.8	0.6	0.4	0.6
Panga	1.0	0.5	0.8	0.5	0.6	0.9	0.7
Sickle	0.3	0.1	0	0.1	0.3	0	0.1
All	3.5	1.6	1.7	1.6	1.8	2.3	2.0

We can assume that perhaps around 5,000 farm families (60%) received around 2.5 kg and 2 tools.

5. TIMING OF INPUTS

50% of the farmers said the seeds and tools were timely, a fairly high number considering that most of the items arrived in June and July. However, 46% of the sample received their inputs in May, ie from the first consignment that came by road and this is no doubt due to their proximity to Ayod town. It is they who said they were satisfied with the timeliness of the seed/tools. There was also a perceived unwillingness to be critical of the programme lest future donations might be compromised.

6. CONDITION & QUALITY OF INPUTS

Almost all the items delivered were said to be of good quality and in good condition. However eight of the seventeen who received groundnuts complained that they had been severely affected by weevils and germinated very poorly. The same was mentioned by a few regarding Katumani maize. One respondent said that the panga she had received was of poor quality.

7. SUITABILITY OF TYPES AND VARIETIES PROVIDED

A few people mentioned that cereals were preferable to vegetables and that sorghum was the most important crop and a fair number said that Katumani maize was quite unsuitable for local growing conditions. This is significant: the area is predominantly sorghum growing, yet the original allocation pledged almost as much maize as sorghum.

Most respondents were unable to comment on the performance of the varieties provided as they had only just planted the seed, but all said that particularly in a year when rains were so late, the short maturity of most of the seeds was probably beneficial. Some farmers noted that their local varieties of sorghum already appeared more drought and flood resistant than that provided from abroad. Again farmers were clearly unwilling to criticise and many said that the relief items were all perfectly suited to their needs.

8. SUFFICIENCY AND LOCAL SUPPLIES

All respondents stated that the seeds were very welcome but were insufficient. However the presence of fair amounts of local seed and tools, either saved from the 1989 harvest or bartered from Bor District and from "the Dinka" (probably the Nyarweng at Puk Tap) is encouraging. An average of 24kg of local seed per family was recorded (primarily sorghum), with a range from 0 to 105 kilos. All families had at least one agricultural tool, many of which were acquired from local blacksmiths, mostly in the last two-three years.

Combining relief and local supplies, each family had a total of some 27 kg seeds and three hand tools.

TABLE 39

LOCAL SEED & TOOLS PER HOUSEHOLD

Item	Tiem	Pankor	Boul	Pagul	Thung	Kwei	All
			Kg				
Maize	1.3	2.8	2.8	1.9	7.2	5.7	2.66
Sorghum	30.5	10.9	9.9	6.3	16.4	32.2	17.69
Cowpeas	0.9	1.5	0.8	0.3	0.9	0.9	0.87
Groundnuts	0.3	0.2	0	0	5.0	0	0.92
Sesame	0	0.1	0	0	0	0	0.02
Okra	0.1	0.1	*	0.1	*	*	0.05
Pumpkin	0.6	0.1	*	*	*	*	0.12
All seeds	33.6	16.6	13.4	8.5	30.5	39.6	23.7
			Pcs				
Hoe	0.3	0.5	0.3	0	0.3	1.3	0.4
Malloda	1.1	0.5	0.3	0.3	0.6	0	0.52
Panga/Axe	0.7	0.2	0.5	0	0.6	1.4	0.48
Sickle	0	0	0	0	0.3	0	0
All tools	0.2	1.2	1.1	0.3	1.8	2.7	1.4

* negligible amount

TABLE 40

TOTAL SEED & FEDDANS PLANTED PER HOUSEHOLD

Location	Feddan 1990	Relief seed	Local seed	Total seed	Apparent seed rate
		Kg	Kg	Kg	Kg/Feddan
Tiem	3.34	6.16	33.6	39.76	11.9
Pankor	3.02	2.62	16.6	19.22	6.4
Boul	1.64	0.68	13.4	14.08	8.6
Pagul	0.85	0.81	8.46	9.27	10.9
Thung	1.55	2.4	30.52	32.92	21.0
Kwei	2.9	2.56	39.59	42.15	14.5
Average	2.2	2.54	23.7	26.24	11.9

The feddanage quoted represents the area under crop as of date of survey, August 1990. Local seed is total available to the farmer in 1990 some of which had already failed as it had been planted in May and June and Ayod did not receive adequate rains until mid July. The implication is that the higher the apparent seed rate, the greater the losses of early planted crops. Those with most local seed had also

lost most through early planting. The late arrival of much of the relief seed probably meant that it was amongst the surviving crops.

9. STATE OF THE CROPS

The survey team were not able to cover a very large area to interview farmers or observe crop status.

Rains in 1990 came very late to the whole of northern Jonglei and Upper Nile. Cultivation usually starts in May and continues into June, this year it was reported that a number of plantings had been attempted but most had failed. The rains did not come to Ayod until July. Crops were once more planted, and as the rains increased in intensity and the annual flood began to waterlog the soil, many plants, being at an early and vulnerable stage succumbed. Maize is particularly vulnerable to waterlogging, whereas sorghum can withstand it for some time. Areas of fair harvest have been reported, equally reports have been received of crop failure around Mogogh. Many of the Lau Nuer from Waat cultivated in Ayod District or next to the Sobat or Khor Fullus. It seems that this was not a good season for those who did cultivate at Waat.

Estimated yields for Ayod could be very tentatively set at 2 sacks per feddan for all plantings together, a reflection of the difficulties faced this year. With an average farm size of 2.2 feddan that would give each family 4.4 sacks (396kg). With 8,000 farm families a total tonnage for the district (Ayod only) could therefore be set at 3,168 MT of which perhaps 182 MT or 7% was produced from the inputs provided by Unicef. NB. this estimate does not include Fangak or Waat. (If the 12 MT provided was planted at a rate of 12 kg/feddan then total production from the relief seed would have been 182 MT which is 6% of the estimated total 3,178 Mt) An optimum yield would be 5 sacks per feddan.[12]

10. CONCLUSION

The seed and tool programme in Ayod was insignificant in quantity and in production. It cannot be said to have made any great impact on food security, although the provision of an average of two tools per family in the areas near Ayod may have had an effect on ability to husband what small crops are available. Future interventions will probably be best directed towards attempting to preserve any existing stocks of local seed through seed preservation programmes and in providing tools.

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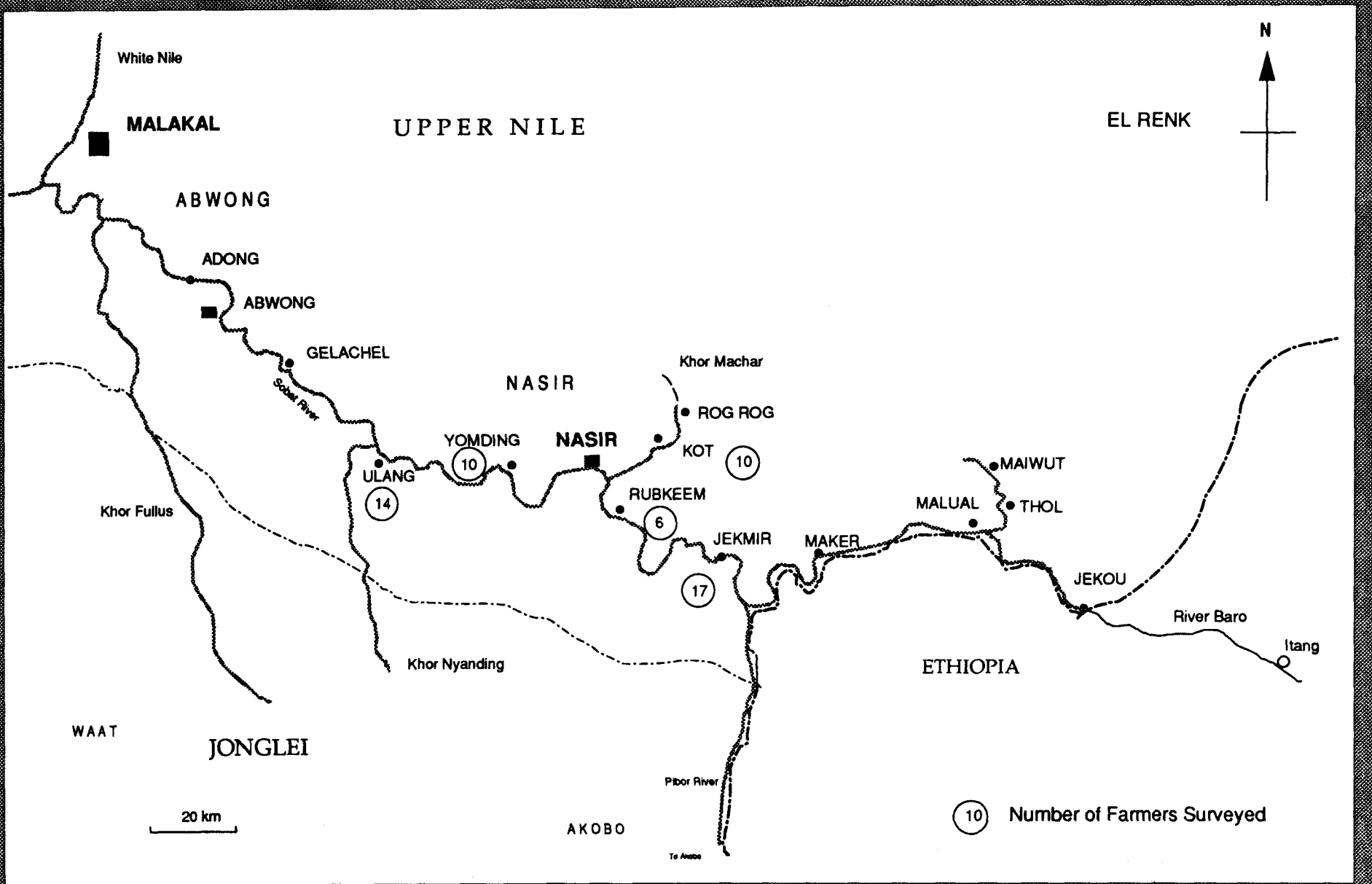
[12] The Jonglei Canal, Impact and Opportunity, Howell P., Lock M. and Cobb S. Eds, Cambridge University Press, 1988.

Map 11


White Nile
MALAKAL
UPPER NILE
EL RENK
N
ABWONG
ADONG
ABWONG
GELACHEL
Sobat River
NASIR
Khor Machar
ROG ROG
YOMDING
NASIR
KOT
10
10
ULANG
14
RUBKEEM
6
MAIWUT
MALUAL
THOL
Khor Fullus
JEKMIR
MAKER
17
JEKOU
River Baro
Itang
Khor Nyanding
ETHIOPIA
WAAT
JONGLEI
Pibor River
20 km
AKOBO
10 Number of Farmers Surveyed
SOBAT

E. SOBAT (NASIR, ABWONG & AKOBO)

1. BACKGROUND[13]

Sobat has a census population of some 206,000 Nuer, (approximately 20,600 households). In addition Akobo is listed as having a population of 83,424 (11,921 households). The land is characterised by extensive flat alluvial plains of black cracking clay intersected by shallow river valleys with sandy levees. "The lack of slope, the heavy and impermeable soils and comparatively heavy rainfall (between 750 and 1,000 mm during a rainy season of from 6 - 7 months), combined with drainage systems which are rarely sufficient to carry large accumulations of rain water mean that most of the land is subject to some degree of flooding and waterlogging during the rains." (Natural Resources and Development Potential in the Southern Provinces of the Sudan, GOS, 1954).

The Jikany Nuer have permanent settlements along the major water courses on the alluvial banks which are a few centimetres higher and generally flood-free. The ground has more permeable soils, a slight slope and better drainage and it is here that cultivation takes place. The lower lands are subject to severe flooding during the rains, though in the early part of the rainy season there are also periods of drought and are almost waterless during the dry season. The Jikany and Lau Nuer utilise this land for dry season grazing of Hyparrhenia and Setaria grasses, for hunting game and for collection of wild foods such as Lalob from the Higlig tree (Balanites aegyptiaca).

The population is concentrated in the rains along the rivers Baro, Akobo, Pibor and Sobat and along the seasonal watercourse banks of the Khor Fullus and the Khor Wakau. Cattle and small stock are the primary interest of the people, but cultivation also plays a major part and grain is a household staple, whether grown or purchased. Fishing is another important food source, especially during the early rains. Main crops are sorghum and maize with some pumpkin and tobacco grown in small homestead plots. Along the Sobat to the south east of Nasir, people grow mainly maize and plant twice a year. To the west of Nasir the primary crop is sorghum, planted only once.

Although Sobat area has received only minimal inputs from OLS and associated agencies due to its inaccessibility, it was reported that numbers of people returned to the area from the Ethiopian refugee camps during the late dry season in order to cultivate. It should be remembered that although a considerable distance for many, the river allows relatively free transport in and out of Ethiopia and Itang, the first camp reached from this direction is the only market of any significance to which the people have access. This is in addition to its

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[13] For further detailed information, see Investigation into Rural Production Capability, UN/SRRA, June 1990

being a source of relief food. Thus movements to and from Itang must be treated not just as indicators of distress.

2. SURVEY ACTIVITIES

The survey team selected three of the eight main court centres in Nasir District and within these a number of settlements were sampled. In all 57 farmers were interviewed in 5 main villages and their satellites, ie 37 % of the court centres and 5% of the farm families in the sampled villages. Neither Abwong nor Akobo Districts were sampled due to its distance from Nasir. (Map 9)

Sampling error resulted initially from a sample too small to reflect the variations found (they were not expected to be so great) and from a number of other aspects of the technique employed.

Transport was a major constraint, the only means being along the rivers by boat. This limited the team to a) settlements along the river Sobat and Khor Wakau and b) to a distance of some 100km from Nasir, ie. it was not possible in the given time to visit Abwong, Khor Fullus, River Pibor or Jeckau. It should be noted that the majority of the people were indeed to be found in their permanent settlements along the river banks, but that many were beyond the survey's reach and possibly also beyond the reach of the seeds and tools programme based out of Nasir town.

None of the enumerators spoke Nuer and none of the respondents Arabic, thus translation was used and some confusion resulted. We noted that a surprising number of people were encountered who had received relief items and it was quickly learned that the translators had been rejecting those farmers who did not receive. the translators were of the local SRRA and were keen to show how effective had been their programme. The translators also added a good deal of additional colour to the replies of the survey respondents.

Some farmers returned from Itang refugee camp with seeds which they variously referred to as relief or as their own, this was another source of confusion.

As in other areas there was difficulty in ensuring that all enumerators agreed on the local units of measure, as there seem to be few universally accepted units. People talked of Kura (enamel bowl), cups, glasses, sacks, tins etc. A tin has been variously set at 12 - 18kg, a kura at 2 - 4 kg etc.

A major enumeration problem that only became clear after the team had returned to Kapoeta was the apparent confusion about a persons status: a village headman, a family head or a family unit? A village headman might answer that he received 10 -15 kg seed and five tools, these would be for between 5 and ten households, but it seems that some enumerators recorded 10 kg as the allocation to a single farmer.

3. THE SOBAT SEEDS & TOOLS PROGRAMME

3.1 Arrivals

Sobat area was supplied with seeds and tools by Save the Children Fund UK and by Unicef. The SCF items were taken overland to Pochalla by SCF/SRRA and then the allocation for Sobat was transported by SRRA through Ethiopia to Nasir, arriving in May 1990. The consignment included one UN boat and engine which, it later turned out, was one of the major means of carrying not only seeds and tools to Abwong, but also EPI teams, agricultural survey staff etc. The Unicef items for Nasir, Abwong and Akobo, too late to go by road across the waterlogged plains (these roads were closed by rain by April 1990), were despatched by air to Nasir for the entire Sobat area between May and July 1990.

Although less than the total Unicef allocation was delivered the airlift was an impressive effort. A total of 30 MT seed and 2,750 tools were sent by SCF and 40 MT seed and 5,160 tools by Unicef. This was 100% of the SCF allocation and 62% of the Unicef seeds and 26% of the Unicef tools allocation.

TABLE 41

SCF (UK) & UNICEF INPUTS TO SOBAT AREA

Donor	Item	Pledged	Actual
		Kg	
SCF (UK)	Sorghum	30,000	30,000
Unicef	Sorghum	40,000	23,280
	Maize	23,000	16,390
	Greengram	1,000	100
	Vegetables	537	577
Total		94,537	70,347 (75%)
		Pcs	
SCF UK	Hoe	2,750	2,750
Unicef	Malloda	11,500	5,160
	Axe	3,300	0
	Panga	3,100	0
	Hoe	2,000	0
Total		22,650	7,910 (35%)

3.2 Distribution

The items were divided from Nasir into two parts for Nasir and from Abwong. 35% was sent to Abwong by small boats with UN outboard engines carrying 500 kg at a time. The remaining 65% was distributed from Nasir itself. The SRRA Secretaries in these two centres then called all the executive chiefs from their area to send representatives to sit on a distribution committee. As in Ayod, the items arrived piecemeal and meant a distribution of small amounts every week or so and no doubt caused great difficulties during discussions as to how the items should be divided up. As in Ayod, the Chiefs and SRRA did not know how much their total allocation would be. The chiefs or their representatives then arranged for the items to be collected by canoe or on foot and taken to the court centre where they divided the allocations between their subchiefs who divided them to their village headmen who in turn divided the items amongst the family heads.

Decisions as to who got what were based on numbers of households, needs and suitability. Thus although the SRRA records include an equal distribution of each item to each court, the reality was different, with some getting more sorghum then maize etc. The items were stored in the old higher secondary school at Nasir as well as in the SRRA office store. At the court centres the items were distributed as soon as they arrived.

3.3 Record Keeping

The SRRA kept no store ledger but did have written records of receipts and of distribution to primary centres. However, the distribution documents are so precisely equal for each court and list against each item numbers of beneficiaries based on an ideal amount to be supplied to each, that they can only be considered plans as opposed to reality. Beyond that no other records were kept, but all chiefs, sub-chiefs and village headmen were able to account for all the items they received in terms of how much arrived and to whom it was distributed. Few of the officials were literate and even if they were they had no stationery and indeed have always organised distributions amongst their peoples without using written records. Their memories tend to be prodigious. No complaints were heard from any person as to the fairness of the distribution system.

4. RECEIPTS

4.1 Percentage of Repondents Benefiting

The survey found 79% of the respondents had received seed and 56% tools. Those who did not receive are those next in line when the next amount arrives. Unfortunately we do not project any more arrivals for 1990, but the chiefs did not know that until the teams informed them.

TABLE 42

PERCENTAGE OF HOUSEHOLDS BENEFITING FROM INPUTS						
Item	Jekmir	Kot	Rubkeem	Yomding	Ulang	All
			%			
Seed	88	92	90	60	67	79
Tools	81	75	60	0	33	56
n	17	10	6	10	14	57

4.2 Average Receipts Per Household

If total relief seeds and tools had been equally distributed to every farming family in Nasir, each would have received 1.5 kg sorghum and 0.5 kg maize and 0.3 tools. In effect the survey found an average of 2.7 kg sorghum, 3.3 kg maize and 3 tools. This is an exaggerated figure if we consider the number of families supposed to inhabit Nasir District, most probably due to survey error, notably the problem of identification between a village headman and a family head, failure to interview those who did not receive and proximity to Nasir. However, if we consider that those we interviewed were heads of EXTENDED FAMILIES, who might be said to be responsible for around three FAMILY UNITS (mothers with children living in a separate tukul), then we could very tentatively say that an average family unit received 2 kg seed and 1 hand tool.

TABLE 43

AVERAGE HOUSEHOLD RECEIPTS BY LOCATION AND TYPE

Item	Jekmir	Kot	Yomding	Rubkeem	Ulang	All
			Kg			
Seed:						
Sorghum	1.6	5.2	0.2	6.5	0.7	2.7
Maize	2.1	5.1	3.4	6.3	1.25	3.3
Beans	0	0	0	0	0	0
Greengram	0.3	0.2	0	0	0	0.1
Vegetables	0.3	0.1	0.02	0.11	0.11	0.13
All	4.0	10.6	3.62	12.91	2.6	6.23
			Pcs			
Tools:						
Hoe	0.7	0.75	0	1.3	0.4	0.7
Malloda	1.2	0.75	0	1.1	0.2	0.7
Panga	1.2	0.5	0	0.7	0.7	0.7
Axe	1.1	0.17	0	0.3	0.1	0.4
Sickle	1.1	0.42	0	0	0.1	0.4
Slasher	0.4	0	0	0	0	0.1
All	5.7	2.59	0	3.4	1.5	3.0
n	17	10	6	10	14	57

5. TIMING OF INPUTS

The items provided by SCF arrived and were distributed in April, which was considered by the farmers to be a good time. The bulk of the Unicef inputs arrived in June and July. Although these were very late and 100% of respondents said so, they also pointed out that much of their first two attempts at planting had failed due to the late rains and that the small Unicef inputs had been planted in july and had survived.

6. QUALITY AND CONDITION OF INPUTS

All the farmers and chiefs commended the quality and condition of seed and tools.

7. SUITABILITY OF TYPES AND VARIETIES PROVIDED

All farmers said that the inputs were useful and would not be drawn as to whether vegetables were a priority item for them, saying in almost all cases that the items were all equally necessary. Very few farmers were able to comment on the performance of the various varieties provided. The Paramount Chief of the Gaajok at Kot noted that the maize was a good, tall type and was nearly ready for harvest after one and a half months. A number of people noted that although marginal, their local varieties were better able to stand up to the extremes of drought and waterlogging that are common along the Sobat.

8. LOCAL SEED & TOOL SUPPLIES AND SUFFICIENCY OF RELIEF INPUTS

Local seed supplies were found to be not insignificant and people said that they had more than they had last year in 1989: the average found was 8.8 kg seed, mostly saved from last year or bought/borrowed from within the area. Some had been brought from a location north of the Machar Marshes (Maiwut?). Tools were in very short supply and those seen were much worn. The blacksmith in Nasir, to whom the SCF blacksmith tools had been supplied, had probably not yet had time to make very many tools and was also said to be suffering a lack of suitable metal.

TABLE 44

AVERAGE LOCAL SEED & TOOL SUPPLIES PER FAMILY

Item	Jekmir	Kot	Yomding	Rubkeem	Ulang	All
			Kg			
Sorghum	1.80	19.25	9.60	7.25	6.15	7.90
Maize	4.50	11.13	15.50	12.65	8.60	9.70
Cowpea	0	0	0	0.02	0.15	0.03
Beans	0	2.08	1.05	0	0	0.55
Greengram	0	0.09	0	0	0	0.02
Groundnut	0	6.25	0	0	0	1.25
Sesame	0	0	1.50	0	6.25	1.36
Vegetables	0	0.04	0.35	0	0	0.07
Total	6.30	38.84	28.00	19.92	21.15	20.88
			Pcs			
Hoe	0.18	0.42	0.8	0	0	0.21
Malloda	0.18	0.67	0.6	2.0	1.6	0.98
Panga	0.06	0.17	0.1	1.1	0	0.31
Axe	0.18	0.42	0.21	0.6	0.1	0.28
Sickle	0	0.08	0	0	0	0.01
Rake	0	0.08	0	0	0	0.01
Total	0.60	1.84	1.71	3.7	1.7	1.80
n	17	10	6	10	14	57

TABLE 45

TOTAL SEED & FEDDAN PLANTED

Location	Feddan	Relief Seed Kg	Local Seed Kg	Total Seed Kg	Apparent Seed Rate Kg/Feddan
Jikmir	2.91	7.9	6.3	14.2	4.9
Kot	4.03	10.6	38.4	49.0	12.2
Rubkeem	1.63	18.2	28.0	46.2	28.3
Yomding	4.85	12.9	19.9	32.8	6.8
Ulang	1.77	2.6	21.2	23.8	13.4
All	2.81	9.0	20.9	29.9	10.6

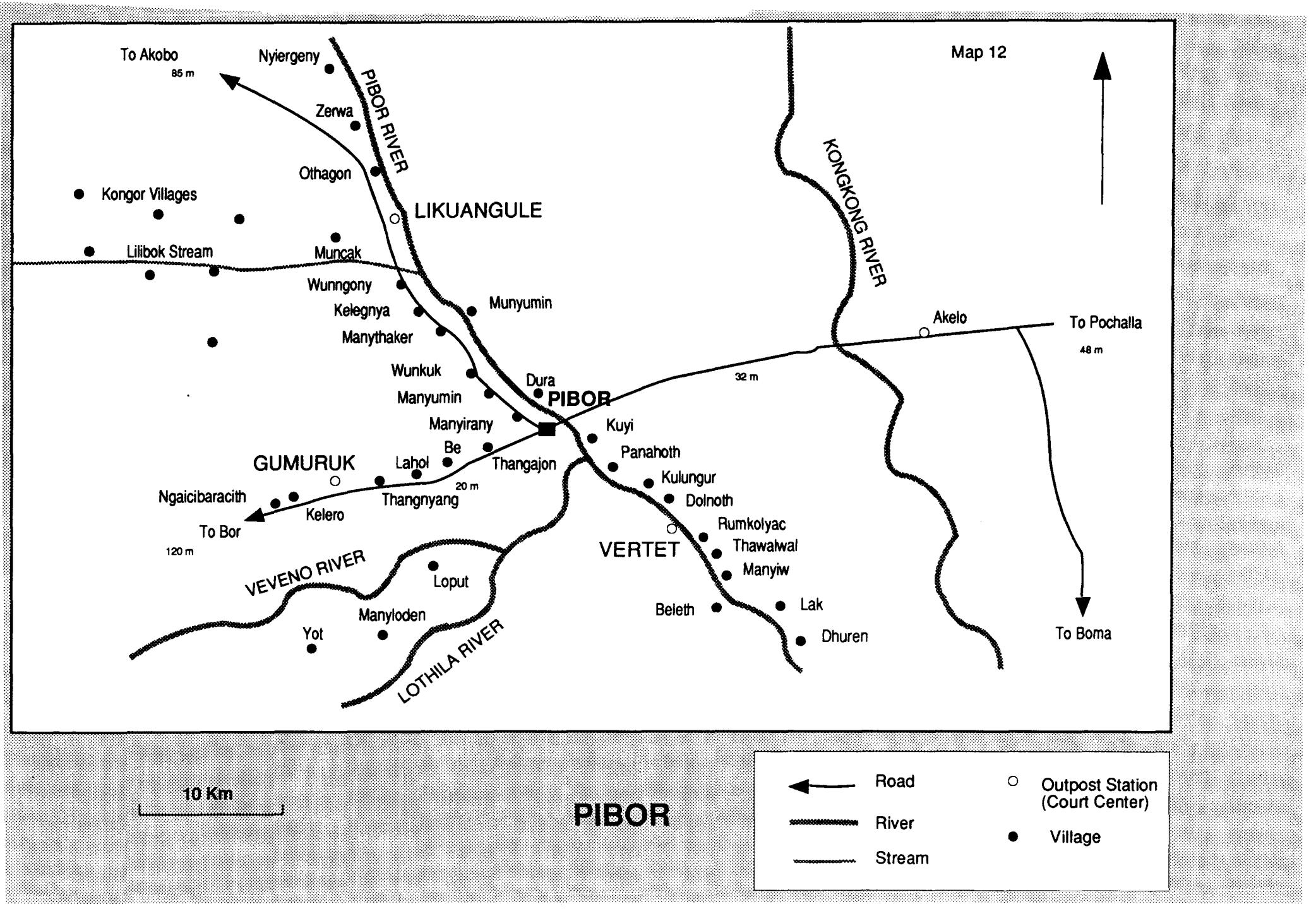
9. STATE OF THE CROPS

The survey team noted small acreages with healthy crops. However the crops observed were young and vulnerable and the team observed the beginning of the creeping floods. In some areas maize had begun to die off and sorghum was beginning to turn yellow. What might have been a normal level of waterlogging which could have been withstood by a crop some two months old and 4 foot high, resulted in severe stress on crops which were generally only a few weeks old and less than one foot high. This was all the result of the late onset of the rains, leading to the loss of two or even three plantings and the final success of the last, small inputs, only to be affected by flood. SRRA reports from Melut that the people were unable to plant altogether.

Estimated yields could be very tentatively set at 1 sack per feddan, a reflection of the very poor rain regime faced this year. With an average farm size of 2.8 feddan that would give each family an average of 2.8 sacks (252kg). A total tonnage for the 20,600 families in the district could therefore be set at 5,191 MT of which some 11% or 594 MT was produced from the inputs provided by Save the Children UK and Unicef. (If the 70 MT provided was planted at a rate of 10.6 kg per feddan, then it could have covered 6,604 feddan which would have produced 594 MT or 11% of the total Sobat production.)

10. CONCLUSION

As a result of the early delivery by SRRA of the SCF (UK) inputs small amounts of seed were distributed to each family that was present in Sobat. However, it is suspected that much of this local and relief seed failed due to the complete absence of early rains. The UN seed, arriving very late for a normal season, arrived in time to be included in the last planting: some of it may have survived. It is probable that the tool input, though limited, had the most important impact. Possibly too, the provision of certain vegetables such as pumpkin and okra helped to increase the amounts of vegetable seed available for the future. Although only a few pumpkins may have been produced, the amount of seeds in each will be a valuable resource for future crops. Future interventions should include continued support to Sobat farmers in the form of seed preservation schemes, seed and tool supply and possibly further support to local blacksmiths.


Map 12
To Akobo
85 m
Nyiergeny
Zerwa
PIBOR RIVER
Othagon
LIKUANGULE
Kongor Villages
Lilibok Stream
Muncak
Wunngony
Kelegnya
Manythaker
Munyumin
Wunkuk
Manyumin
Manyirany
Dura
PIBOR
KONGKONG RIVER
Akelo
To Pochalla
48 m
32 m
Kuyi
Panahoth
Kulungur
Dolnoth
Rumkolyac
Thawalwal
Manyiw
VERTET
Beleth
Lak
Dhuren
To Boma
GUMURUK
Lahol
Be
Thangajon
20 m
Thangnyang
Ngaicibaracith
Kelero
To Bor
120 m
VEVENO RIVER
Loput
Manyloden
Yot
LOTHILA RIVER
10 Km
PIBOR
Road
River
Stream
Outpost Station
(Court Center)
Village

F. PIBOR

1. BACKGROUND

Pibor district is inhabited by an estimated 81,000 Murle (some 13,500 families), of whom, perhaps some 10,000 are hill Murle living on the Boma plateau. In addition around 29,000 Anuak inhabit the Pochalla area toward the border with Ethiopia (5,000 families).

The plains Murle located around Pibor Post are a transhumant community whose main production activity is cattle rearing, although farming plays some role in food security. The people move to the higher sandier ground adjacent to five major rivers and move out to the plains with their cattle when wet season floods recede. The hill-Murle of Boma (Ngalam Section) are sedentary cultivators and own livestock which are husbanded by the plains-Murle in exchange for grain and other crops.

The Anuak are primarily subsistence cultivators living along the Bo and Akobo rivers, although being closely related to the Shilluk, they abandoned pastoralism in favour of a sedentary life due to excessive cattle raiding.

In addition to farming and herding, the population of Pibor Post depend on fish and wild game - especially the white-eared kob whose seasonal migration across the district just before the rains in May is a much-exploited event. The meat is dried and is used during lean months (dry season December to April) when the herds are low on production. Herbs, wild fruits and nuts are gathered from the bush more during the wet season.

The plains Murle are highly mobile and, in the dry season, move over vast areas from Pochalla to Bor and from Boma to Waat and Akobo. The rains begin around May and during this time the Murle move back to settlements around Pibor.

The main crops are sorghum and maize. Okra, pumpkin, cowpeas and other vegetables are grown around the homesteads in small plots. In 1990 average farm size was found to be 0.8 feddan.

2. SURVEY ACTIVITIES

Sampling took place from Pibor Post and covered the Unicef inputs in that area. Neither Boma nor Pochalla were covered.

56 farmers from villages from the four court centres of Pibor Post (Pibor, Vertet, Gumuruk and Likuangule) were interviewed along with five officials. This is 100% of the court centres 3% of the populations of the villages sampled. Due to flooded paths and a lack of transport (last year there had been boats available) the team interviewed all 56 of the farmers in Pibor itself. This is expected to be the major source of sampling error.

3. THE PIBOR SEED & TOOLS PROGRAMMES

3.1 Arrivals

Seeds and tools were supplied to Pibor by Unicef, transported by road from Bor. An initial consignment of 3 MT sorghum seed and 700 tools were despatched by SRRA Bor, following which a Unicef convoy took 7.4 MT seed and 8,800 tools on 2 April 1990. 3 MT sorghum were delivered by SRRA from Bor in April and 0.6 MT seed and 7,621 tools were delivered by air between April and May. Due to difficult road conditions the first convoy turned out to be the only one and that convoy took only half the load it might have taken had the roads been completely dry. Thus Pibor ended up with only 2/3 of its seed allocation and almost all the allocated tools, the remainder being distributed in Bor.

Agro-inputs were supplied to Pochalla by SCF UK, some 55 MT seed and 2,750 tools. These were taken overland to Pochalla in March 1990. Boma also had a seeds and tools programme organised by ACROSS and SRRA, with ACROSS providing 69 MT seed and 36,000 tools. This was enough for an average of 30 Kg seed and 7 tools per family.

TABLE 46

UNICEF INPUTS TO PIBOR, SCF TO POCHALLA & ACROSS TO BOMA

Item	Pledged to Pibor	Received Pibor	Pochalla	Boma
		Kg		
Sorghum	10,000	5,745	30,000	37,000
Maize	9,080	6,117	15,000	32,000
Cowpea	1,000	996		
Beans			10,000	5,500
Groundnuts				3,975
Greengram	1,000	1,000		
Vegetables	182	280		537
Total	21,262	14,034 (66%)	55,000	69,012
		Pcs		
Hoes	4,000	4,010	2,750	3,500
Mallodas	8,550	8,520		14,900
Axes	2,000	1,789		3,500
Pangas	2,352	2,352		3,500
Sickles	450	450		3,500
Slashers	3,500			
Total	17,352	17,121 (99%)	2,750	35,900

3.2 Distribution Planning and Implementation

3.2.1 Pibor:

The SRRA Secretary apparently called the Paramount Chief of the Murle and his chiefs and together they decided on a distribution plan dividing the items between Pibor, Vertet, Gumuruk and Likuangule as shown in the table below:

TABLE 47

DISTRIBUTION TO PRIMARY CENTRES BY LOCATION			
Location	Seed	Tools	Families*
	Kg	Pcs	#
Pibor	2,155.37	4,182	2,700
Vertet	1,498.69	3,361	2,250
Gumuruk	2,758.86	4,404	4,050
Likuangule	3,455.41	5,174	4,050
Total	9,868.33	17,121	13,050

*estimated by number of sub-chiefs multiplied by an average of 450 families/sub-chief.

TABLE 48

DISTRIBUTION TO PRIMARY CENTRES BY SEED & TOOL TYPE					
Item	Pibor	Vertet	Gumuruk	Likuangule	Total
			Kg		
Sorghum	591	412	772	970	
Katumani	1,197	835	1,566	1,969	
Composite	150	100	140	160	
Cowpea	215	150	278	353	
Greengram					
Vegetables	23	17	29	37	
Total	2,155	1,499	2,758	3,455	9,867
			Pcs		
Hoes	1,010	600	1,050	1,350	
Mallodas	2,150	1,960	2,170	2,240	
Axes	400	386	404	599	
Pangas	522	350	655	825	
Sickles	100	65	125	160	
Total	4,182	3,361	4,404	5,174	17,121

It will be noticed that the distribution of sorghum does not match the amount provided, that is due to the early and separate arrival of 3,000 kg of sorghum delivered by SRRA which was distributed separately and not recorded.

Decisions on who got what were reportedly based on needs as well as total numbers of farming households under each chief. The chiefs then issued their allocations to their subchiefs (an average of 7 in each main area) according to the populations under each, who then distributed the items to village headmen. The headmen distributed to family heads. At this level issues were based on need and in some cases, on "the best farmers". It should be remembered that many plains Murle do not cultivate on any significant scale.

The items were transported from Pibor town to Gumuruk and Likuangule on the heads of the able-bodied members of these two villages and stored for a short time. The people of Vertet and of Pibor itself collected their items direct from the brick store in Pibor town.

3.2.2. Boma:

No visit was made to Boma but a distribution report from Across lists the following:

" The 1990 [Across] seed and tool distribution was based on area percentages of a total target population of 35,700 designating 11 distribution points. These were Maruwa Hills (20%) (Murle), Kasangor (14%) (Jie), Kiawah (10.4%) (Murle), Rumit (10.4%) (Kachepo/Jie), Moyon (10.4%) (Kichepo), Killiatch (8%) (Murle). Majot (7.6%) (Murle), Itti (5.6%), Byiene (4.8%) (Murle), Nyalongaro (4.8%) (Murle) and Naboy (4%) (Murle)." "Distribution [of groundnut and vegetable seed] also included the primary schools and Boma Health centre.

3.3 Record Keeping

The SRRA secretary recorded arrivals and despatches to primary centres in a ledger and also on Form 2. Form 1 was also filled by the secretary and bears little relation to actual receipts found during the survey, being rather an ideal. Chiefs and Sub-chiefs kept no written records but accounted for the seeds and tools from memory.

4. RECEIPTS

The survey findings indicate that 98% of respondents received seeds and 93% tools. The sampling error resulting from meeting farmers from outlying villages in Pibor town is no doubt responsible for this figure.

TABLE 49

PERCENTAGE OF FARM FAMILIES BENEFITING FROM RELIEF INPUTS			
Location	% of respondents receiving seeds	tools	n
Pibor	100	93	29
Likuangule	100	80	10
Gumuruk	100	100	8
Vertet	89	100	9
Average	98	93	56

Form 2 for Pibor, compiled by the SRRA Secretary for Pibor, indicates a total beneficiary population of 1,320 families or 10% of the total area population. (Form 1 indicates an average receipt of 7kg and 6 tools which was not found during the survey). With an average receipt of 2 kg and 3 tools per sampled family the survey estimate is roughly 5,000 farm families or 35% of the population. Receipts varied from 0 - 7kg seed and 0 - 10 tools.

TABLE 50

AVERAGE RECEIPTS PER FARM FAMILY BY TYPE AND LOCATION					
Item	Pibor	Likuangule	Gumuruk	Vertet	All
			Kg		
Sorghum	0.9	0.5	0.71	0.5	
Maize	1.2	0.58	2.06	0.6	
Cowpea	0.3	0.1	0.14		
Greengram	0.06				
Vegetables	0.06	0.02	0.37	0.07	
Total	2.52	1.2	3.31	1.17	2.0
			Pcs		
Malloda	0.8	1.3	0.8	0.7	
Hoe	0.6	0.9	0.5	1.1	
Axe	0.4			0.5	
Panga	0.6	0.6	0.3	0.5	
Sickle	0.3	0.2	0.1	0.3	
Total	2.7	3.0	1.7	3.1	3.0
n	29	10	8	9	56

5. TIMING OF INPUTS

All farmers interviewed said that the arrival time of the supplies (April) was very appropriate as it was at the beginning of the rainy season. However one official pointed out that it would be useful to bring in tools before the rains to enable farmers to clear their fields. It was also noted that it took about one month between the time of delivery at Pibor to the time the farmer actually received an allocation, so it is important to ensure arrival time accounts for the necessary time taken by discussions, portering etc.

6. QUALITY & CONDITION OF INPUTS

No complaints were received of either the quality or condition of the items delivered.

7. SUITABILITY OF TYPES & VARIETIES

Most farmers said it was too early to comment on varieties provided. Several farmers reported that pumpkins were failing to form fruit, this could be due to variety (the variety was imported from Holland and may have a photoperiod different to the regime in the tropics resulting in premature senescence of the flowers) but as no other locations reported similar problems we might assume pest attack (nematodes?) to be the cause. On suitability, one respondent said that vegetable seeds were unnecessary.

8. LOCAL SUPPLIES & SUFFICIENCY OF RELIEF INPUTS

All noted that the amounts provided were insufficient, local leaders were especially concerned about this as they have to divide the limited resources amongst a large population. The average area planted was 0.79 feddan on which 2 kg relief seed would be rather widely spread so although all respondents were adamant that they had no local seed whatsoever, we can assume that some was present. Indeed the enumerators observed several fields where crops other than those provided by Unicef were growing.

9. STATE OF THE CROPS

Pibor area received late and erratic rains and a number of early attempts at planting failed. Once established, the crop, particularly maize, suffered from waterlogging in August. The crops planted on the highest ground have produced a small harvest.

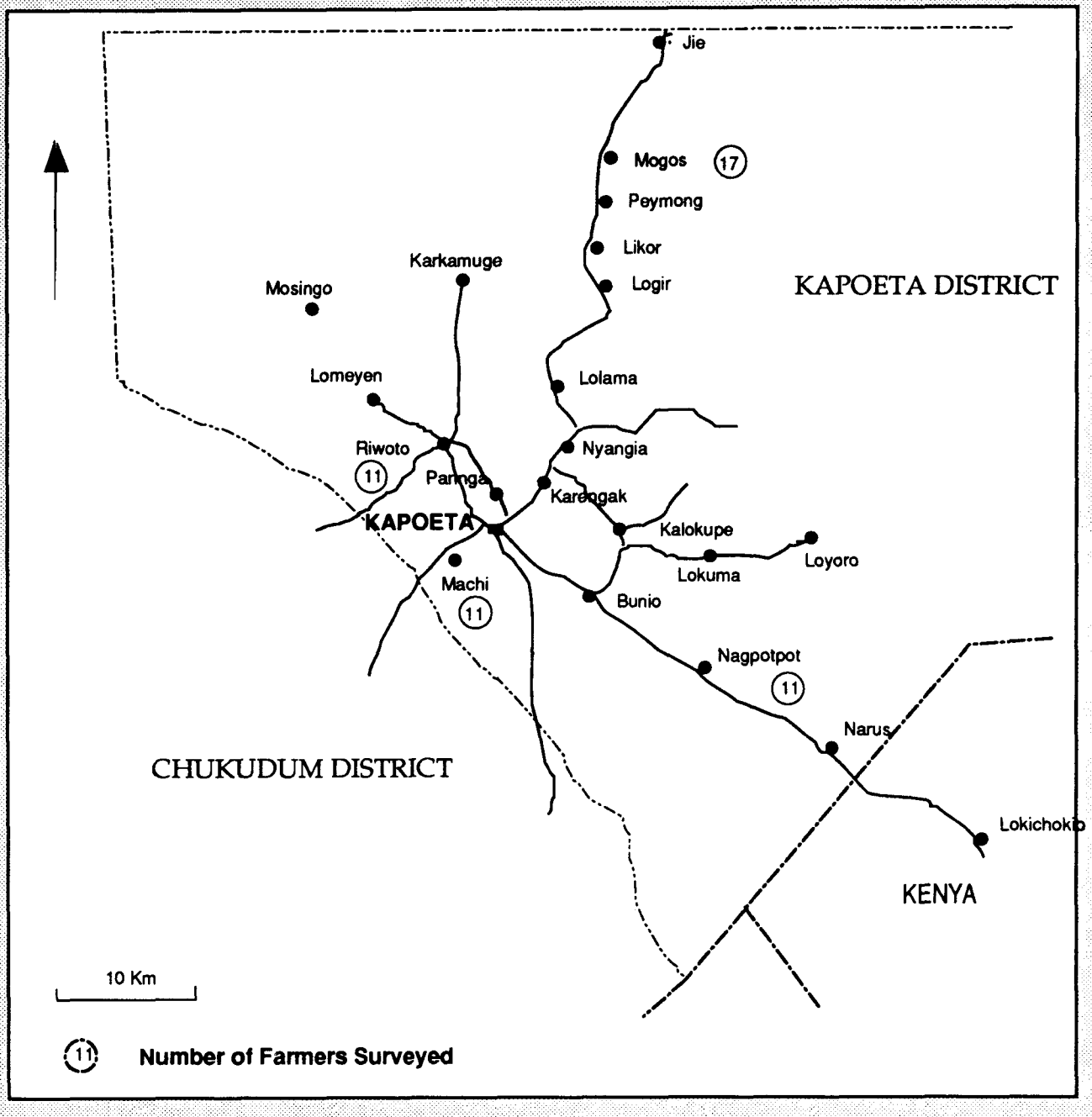
Estimated yields could be very tentatively set at 2 sacks per feddan for all plantings together, a reflection of the difficulties faced this year. With an average farm size of 0.8 feddan that would give a family an average of 0.8 sacks (72kg). A total tonnage for Pibor area could therefore be set at 972 MT of which apparently 100% (!) was produced from the inputs provided by Unicef. More likely, however is the presence of local seed: if the 14 MT provided was planted at a rate of 10kg/feddan then total production from the relief seed would have been 252 MT of a total 972 Mt or 26%. It is important to remember that the primary source of grain for many of the plains-Murle is cattle exchange, therefore it is hard to assess the implications of this harvest estimate.

10. CONCLUSION

The programme did not make much attempt to assist with distribution in Pibor and therefore we cannot say with any certainty that it was effective in providing seed to targeted groups. The data collected in Pibor should be viewed within the constraints of the survey activities: no visits to villages or fields took place and random sampling was not possible.

Map 13

KAPOETA



G KAPOETA

1. BACKGROUND

Kapoeta district has a population of 188,000 people or some 18,000 farm families. The people are of the Tiposa tribe and are pastoralists with cultivation as a secondary occupation. The District is semi-arid with very erratic rains (a mean annual rainfall of below 700mm falling between May and early October ref. 1954) and generally poor vertisol soils except those along the seasonal watercourses which are more fertile. The vegetation is Acacia mellifera type thorn scrub and open grassland on which Tiposa graze their cattle and considerable numbers of small stock. Cultivation is the almost exclusive province of women, the staple crops being sorghum, millet and sesame. Area planted is usually not very large and due to the droughty nature of the area, often represents several plantings.

Although surpluses have been reported from Kapoeta in the past, trade of livestock for grain was not uncommon in the area.

In 1989 World Vision supplied considerable amounts of both relief food and seed and tools. However the harvest was not particularly good due to poor rains.

2. SURVEY ACTIVITIES

The survey began on 21 August and six locations were surveyed. A total of 52 farmers and 6 officials were interviewed. (See Map). Some villages had not received seed and tools at all, as the distribution was not complete at the time of the survey.

3. THE KAPOETA SEED & TOOL PROGRAMME

3.1 Arrivals

World Vision International supplied seeds and tools to the district. A total of 63 MT seed and 28,000 tools were provided, arriving in February 1990. This was added to 1 MT World Vision and 7 MT Unicef seed and 5,000 Unicef hoes carried over from the 1989 distribution to give a total of 70 MT seed and 53,000 tools.

TABLE 51

WORLD VISION & UNICEF INPUTS TO KAPOETA AREA				
Item	World Vision		Unicef	
	1990	1989	1989	Total
		Kg		
Sorghum	45,000	1,075	4,536	46,611
Millet	10,000			10,000
Groundnut	5,000			5,000
Cowpeas	2,000			2,000
Maize			1,470	1,470
Vegetables	1,000		1,224	2,224
Greengram			175	175
Total	63,000*	1,075	7,405	65,480
		Pcs		
Malloda	17,512			17,512
Panga	6,204			6,204
Axe	4,464			4,464
Hoe			4,650	4,650
Total	28,180		4,650	32,830

*Of which approximately 20 MT was distributed in Chukudum District

3.2 Record Keeping & Storage

Items received and sent out were recorded by the SRRA Stores and Equipment personnel as well as by the agricultural staff. They were stored in the SRRA general stores which are high quality brick buildings. There was some confusion as to those items that had been carried over from 1989. A ledger was kept when each allocation was sent to each chief, however the ledger is incomplete. The chiefs did not record receipts or distribution but knew what they had received and given out. They used their own compounds and huts as storage sites.

TABLE 52

DISTRIBUTION TO PRIMARY CENTRES AS OF AUGUST 1990

Location	Sorghum	C. Pea	Millet	G. Nut	Maize	Veg.	All
			Kg				
Machi	2,676	1,570	870	1,700		753	7,569
Riwoto	2,530	1,800	2,050	200		189	6,769
Kapoeta	4,650			400		40	5,090
NCA	4,000					15	4,015
Karkumuge	1,000	125	1,000	100			2,225
Lamurnyang	1,020	405	520	100	50	89	2,184
Mugos	870	540	500	150		80	2,140
Paringa	1,520	150	50	200	100	23	2,093
Pimong	1,740	150	520	150		112	2,027
Karengak	220	400	470	150		80	1,320
Nyangia	900	150	50		150	29	1,279
Likor	1,200		50			20	1,270
Buno	600		50			38	688
Nagpotpot							0
Jie							0
Nachakori	500		30			16	546
Logir							0
Narus							0
Kidepo				100			100
Total	23,526	5,320	6,130	3,250	350	1,484	39,790

TABLE 52 Cont.

Location	Malloda	Panga	Axe Pcs	Hoe	Rake	Total
Machi	1,400	750	240			2,486
Riwoto	460	250	168			878
Kapoeta		150	192			342
NCA						0
Karkumuge						0
Lamurnyang	250	250	144		48	446
Mugos	432		96			528
Paringa	288					288
Pimong	560	150	168			878
Karengak	200	150	48		48	446
Nyangia	648		72			720
Likor	576		48			144
Buno	432					432
Nagpotpot	360	50	96	100		606
Jie						0
Nachakori	360	100	48			508
Logir						0
Narus						0
Kidepo						0
Total	5,486	1,850	1,320	100	192	8,948

3.3 Distribution Planning and Implementation

The Agricultural Officer and World Vision formulated a distribution plan according to population. Items were then distributed by car and truck and also collected by village chiefs. At the time of the survey not all centres had been covered and records showed distribution of only 40 MT seed and 9,000 tools. A further 20 MT seed was despatched to Chukudum District in July 1990.

The chief divided items according to population and need on a family by family basis according to number of people in the family, and need (ie how much local seed was available). A significant quantity was distributed within Kapoeta itself to the "Kapoeta and Machi Schemes". The fact that the items arrived in April and yet many places visited by the survey had still to receive inputs is a matter of some concern.

The Kapoeta and Machi schemes were organised by SRRA and the Civil Administration to promote food production around the town. Each section of town and its traditional leaders was asked to organise land clearance and were then issued with seed and tools in May 1990. These were planted in late June and were tended by the people of the town on a communal basis.

In all locations where items had been received, the people said that distribution had been done in the open and every family present had received something, however small. Those who were not present, which seems to be a fair proportion, did not get anything. The sub-chief at Nagpotpot claimed to have only received 150 kg seed and 15 tools at the time of interview. the records give a figure of 508 tools sent in April; no seed was recorded at all.

The enumerators commented that since women were the farmers, perhaps they should be directly targeted for the inputs. It is not felt, however that they were ignored by their chiefs, the only place where they did not seem to receive so much was Machi.

4. RECEIPTS

4.1 Percentage of Households Benefiting from Relief Inputs

The survey found 48% of respondents who had received relief seed and tools. The remainder were not necessarily overlooked by the programme as the distribution was not complete. This partial completion of the programme means that average receipts and numbers of beneficiaries based on survey results are misleading unless taken in context. We have utilised the average receipts in those villages that were covered for calculation of the overall averages in southern Sudan. If every family had received equally they would have got 4kg seed and 3 handtools.

TABLE 53

	PERCENTAGE OF HOUSEHOLDS BENEFITING					
Item	Machi	Riwoto	Namornyang	Nagpotpot	Mogos	All
Seed	90	63	0	11	17	48*
Tools	90	63	0	11	17	48*

*Although these figures are the same, seeds were often received by different farmers than those receiving tools.

4.2 Average Receipts

TABLE 54

AVERAGE RECEIPTS OF RELIEF SEEDS & TOOLS BY TYPE AND LOCATION						
Item	Machi	Riwoto	Namornyang	Nagpotpot	Mogos	All
Seed:			Kg			
Sorghum	4.7	3.5	0	0.06	0.3	1.85
Maize	2.9	1.3	0	0.03	0	0.93
Millet	0.07	0	0	0	0	0.02
Groundnut	4.5	0	0	0	0	0.99
Sesame	0.1	0	0	0	0	0.02
Greengram	0.22	0	0	0	0	0.05
Vegetables	0.23	0.1	0	0	0	0.07
All seed	12.72	4.9	0	0.09	0.3	3.93
Tools:			Pcs			
Hoe	0.6	0.5	0	0	0	0.24
Malloda	0.6	2.8	0	0	0.2	0.77
Panga	0.8	0	0	0	0	0.18
Axe	0.7	0.85	0	0.1	0.2	0.39
All tools	2.7	4.15	0	0.1	0.4	1.58
n	11	11	10	10	6	50

NB Machi is a displaced persons camp.

5. TIMING OF INPUTS

100% of those outside Kapoeta who had received inputs said that they were late. Only in Machi was there general approval of the arrival time with 63% saying that the items had arrived on time.

6. QUALITY AND CONDITION OF INPUTS

Most respondents said that the quality and condition of items when received was good. A number of farmers said that the malloda was easily bent and that the handle of the Panga splits.

A fair number mentioned that the sorghum had not germinated well, figures from 20% - 50% being quoted.

7. SUITABILITY OF TYPES AND VARIETIES PROVIDED

Generally people were pleased with what had been received and wanted more. Many people stated that their local varieties were more drought and pest resistant than the imported sorghum and maize. The farmers were very pleased with the bulrush millet and said that it grew well and tasted sweet. One farmers mentioned that onion did not grow well in the area, another that groundnuts were not appropriate.

8. LOCAL SUPPLIES AND SUFFICIENCY OF RELIEF INPUTS

All said relief supplies were insufficient. However 91% had local supplies, averaging 29 kg seed and almost two handtools per family. Machi camp was the only location were some of the farmers did not have local seed. Those who had the least local seed were the major beneficiaries of the relief inputs, ie Machi. We should consider, however, that receiving a lot of relief seed might make it unnecessary to procure local seed.

TABLE 55

LOCAL SEED & TOOLS PER HOUSEHOLD

Item	Machi	Riwoto	Namornyang	Nagpotpot	Mogos	All
Seed:			Kg			
Sorghum	2.1	31.8	35.0	44.7	57.5	21.36
Maize	3.9	0	0	0	0	0.86
Millet	0	0	0	0	0.5	0.06
Groundnut	0	0	0	3.3	0	0.66
Sesame	0.1	4.0	4.0	17.4	0.03	5.19
Cowpea	0	1.9	0	1.4	0.83	0.8
Beans	0	0	0	0.4	0	0.08
Vegetables	0.1	0.01	0.11	0	0	0.05
Total seed	6.2	37.7	39.1	63.9	58.86	29.06
Tools:			Pcs			
Hoe	0	0	0	0.1	0.3	0.04
Malloda	0.2	1.4	0.9	1.2	1.3	0.40
Panga	0	0.3	0.3	0.1	0.3	0.04
Axe	0	1.1	0.4	0.3	0.5	0.28
Rake	0.4	0	0	0.1	0	0.11
Total tools	0.6	2.8	1.6	1.8	2.4	1.71
n	11	11	10	10	6	50

TABLE 56

TOTAL SEED & FEDDAN PLANTED PER HOUSEHOLD					
Location	Feddan	Relief Seed Kg	Local Seed Kg	Total Seed Kg	Apparent Seed Rate Kg/Feddan
Machi	6.6	12.7	6.2	18.9	2.9
Riwoto	2.7	3.0	29.6	32.6	12.1
Namornyang	2.0	0	25.2	25.2	12.6
Mogos	2.8	0.3	28.6	28.9	10.3
Nagpotpot	2.9	0.1	38.1	38.2	13.2
All	3.8	3.9	29.0	32.9	8.6

The seed rates listed above indicate that replanting was minimal in the areas surveyed. The seed rate for Machi implies either an exaggeration of land under crop or an underestimation of local seed inputs.

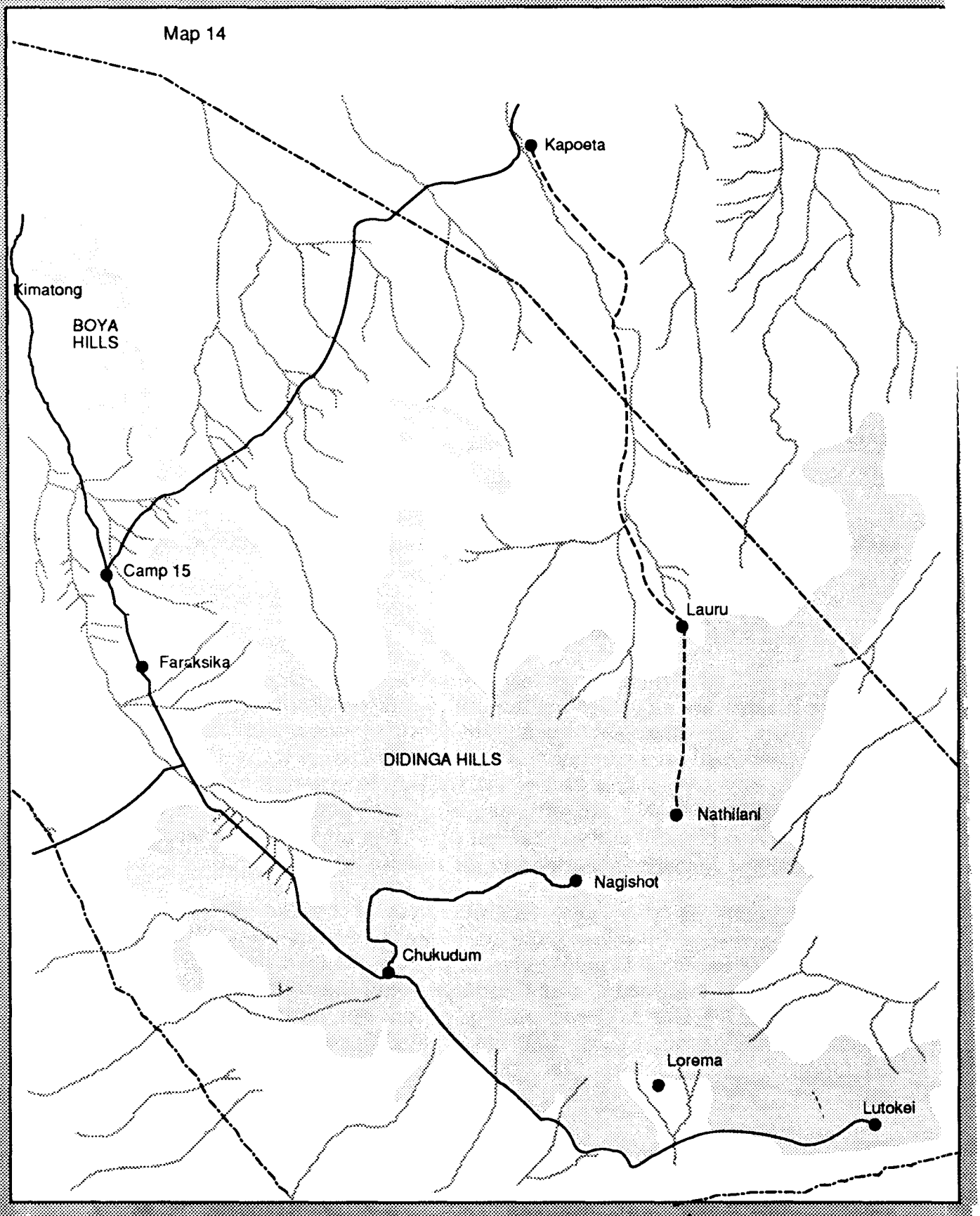
9. STATE OF THE CROPS

The Tiposa tend to plant an early crop while the soil is still dry, a practice that is effective if rains are adequate for the initial establishment phase, as the plants benefit from the nitrogen flush that occurs when the first rains fall. Unfortunately this year had poor early rains and much of this early planting was lost. This is, however, only a part of the strategy to ensure a harvest and loss of this planting is probably not unusual. The later planting that took place in June/July was successful and the harvest projection appears reasonable, at lest in the Kapoeta and Machi schemes and in the Riwoto area.

Estimated yields could be very tentatively set at 2 sacks per feddan for all plantings together, a reflection of the difficulties faced this year. With an average farm size of 3.8 feddan that would give an average family 8 sacks (684kg). For the 18,000 families in the district, a total tonnage could therefore be set at 12,312 MT of which some 8% (942 MT) was produced from the inputs provided by World Vision. (The 45 MT could cover 5,232 feddan at a rate of 8.6 kg/fd, producing 942 MT food)

10. CONCLUSION

The programme was a little slow and coverage seems to be patchy. However the Kapoeta and Machi schemes did produce a considerable crop and will benefit the inhabitants of the area and provide a market to others were crops have failed. More than anything else it appears that the people need tools. Future programmes might consider promoting local tools manufacture as well as providing from outside the country.



CHUKUDUM DISTRICT

H. CHUKUDUM

1. BACKGROUND

The district had a population of some 111,000 people, (18,500 farm families) of whom some 80% live in the lowlands and the rest in the hills. The Didinga tribe, centred around Chukudum are primarily subsistence cultivators and the Boya pastoralists.

The topography of the area is hilly and rains are usually good.

There are two main mountain ranges in the area running from south east to north west, the Didinga and Boya Hills.

Chukudum has traditionally been a supplier of vegetables, sugar cane and grain to the Kapoeta market. Three crops can be grown each year in the highlands and two in the lowlands as follows:

Sowing	Harvesting	Area
February/March	August	Highland
May/June	October/November	Highland/lowland
September	January/February	Highland/lowland

The main crops are sorghum, millet and maize and in the highlands there is usually a wide range of field and horticultural crop types and varieties.

2. SURVEY ACTIVITIES

Surveying took place in late August. Seven locations were randomly picked and a total of 70 farmers and 3 officials were interviewed.

3. THE CHUKUDUM SEEDS AND TOOLS PROGRAMME

The area was originally to receive seeds and tools from Oxfam US, however the programme did not take off due to a number of problems until September 1990. Meanwhile, once it became clear that the people of Chukudum had suffered a failure of the first crop, Unicef and World Vision combined to send inputs to the area in July/August.

3.1 Arrivals

Due to the very confused records for Chukudum area, it is not possible to say what was sent by World Vision and what by Unicef. However a total of 60 MT seed and 6,000 tools were provided, about 40 MT and 6.000 from Unicef and 20 MT seed from World Vision. Items were sent direct to two centres in the District, Chukudum and Kimatong and mostly arrived in late July and August.

TABLE 57

WORLD VISION & UNICEF INPUTS TO CHUKUDUM DISTRICT

Item	Chukudum	Kimatong
	Kg	
Seed:		
Sorghum	10,000	12,848
Maize	1,430	2,970
Millet	2,000	
Groundnut	24,960	
Pigeonpea		2,500
Greengram		904
Beans		2,475
Vegetables	95	41
Total	38,485	21,738
	Pcs	
Hoe	4,000	
Panga	1,200	
Axe	960	
Total	6,160	

3.2 Storage and Record Keeping

Items were stored in the old school houses, which are adequate only from short term storage. Oxfam US had provided stationery to Chukudum centre and a ledger was kept. However ledger figures are difficult to reconcile with that which was thought to have been sent.

3.3 Distribution

As in other locations, each court centre convened a committee consisting of SRRA agricultural officers and local chiefs and sub-chiefs. Distribution decisions were made according to family size and need. The people of Lotukei walked 42 km to collect their inputs from Chukudum.

4. RECEIPTS

4.1 Percentage Benefiting

Only 29% of the sample had received relief seed and 39% tools.

4.2 Average receipts

TABLE 58

AVERAGE RECEIPTS OF RELIEF SEEDS & TOOLS BY TYPE									
Item	Kim.	Chuk.	Lrema	F.sika	Nkwo.	Kkai.	Ltkei.	Ngst.	All
				Kg					
Seed:									
Sorghum	0.75	2.4	5.0	0.2	0	0.75	0.5	0	1.2
Maize	0.9	1.1	3.0	0	2.8	0	1.0	0	1.1
Millet	0.6	0.8	6.5	0.3	0	0	0	0	1.03
Groundnut	0	2.8	2.15	0	0	0	0.5	0	0.68
Sesame	0.1	0	0	0	0	0	0	0	0.01
Cowpea	0.1	0	1.0	0	0	0	0	0	0.14
Beans	0.2	0	0	0	0	0.5	0	0	0.09
P.pea	0.05	0	0	0	0	0	0	0	0.01
Greengram	0.8	0	0	0	0	0	0	0	0.1
Veg	0.29	0.01	0.07	0.01	0.01	0	0.06	0	0.06
Total	3.79	7.11	17.72	0.51	2.81	1.25	2.06	0	4.42
				Pcs					
Tools:									
Hoe	0.2	0.9	0.5	0	0.1	0	0.5	0	0.28
Malloda	0.7	0.4	0	0	0	0	0	0	0.14
Panga	0	0.3	0	0	0	0	0	0	0.04
Axe	0.8	0.3	0	0	0	0	0.2	0	0.16
Sickle	0	0.8	0	0	0	0	0.1	0	0.11
Slasher	0	0.2	0	0	0	0	0	0	0.02
Total	1.7	2.9	0.5	0	0.1	0	0.8	0	0.75
n	10	10	10	10	10	10	10	10	80

5. TIMING OF INPUTS

All respondents said that the seed was late.

6. CONDITION AND QUALITY OF INPUTS

As in Kapoeta, a few complaints were received about the strength of the tools received, but generally people were pleased. Some of the groundnuts sent were rotten on arrival, what proportion is not known, but this was only mentioned by one farmer.

7. SUITABILITY OF TYPES AND VARIETIES PROVIDED

Serena was said to store less well than local grain which, although long maturing, is said to be more resistant to drought and pests. Again the people were pleased with bulrush millet. Farmers were keen to point out that they would have liked finger millet as well, as they say that the local variety is no longer available in the District.

8. LOCAL SEED AND SUFFICIENCY OF RELIEF INPUTS

99% of the sample had local seed and 79% local tools. Thus although relief inputs of seed were small, they complemented a reasonable amount of local seed. Tools however are in short supply and increased inputs of tools would probably have had a significant impact.

TABLE 59

LOCAL SEED & TOOLS PER HOUSEHOLD

Item	Kim.	Chuk.	Lrema	F.sika	Nkwo.	Kkai.	Ltkei.	Ngst.	All
				Kg					
Seed:									
Sorghum	15.2	11.25	15.5	39.5	2.8	35.55	18.5	0.8	17.39
Maize	0	11.8	3.5	21.0	22.1	0	28.0	29.3	14.46
Millet	6.6	10.1	8.5	2.8	0	0	18.5	0	5.81
Groundnut	0	0	1.5	5.6	0	0	6.0	0	1.64
Sesame	4.6	1.9	3.8	4.0	0	0	17.5	0	3.98
Cowpea	0.1	0	0.3	0.06	0	0	0	0	0.06
Beans	0	0	0	1.01	0.6	0	2.8	1.0	0.68
P.pea	0	0	0.2	0	0	0	9.3	0	1.19
Greengram	0	0	0	0	0	0	0	0	0
Veg	0.11	0.51	0.21	0	0	0	0.21	0.01	0.13
Total	26.6	35.56	33.5	73.97	25.5	35.55	100.8	31.1	45.34
				Pcs					
Tools:									
Hoe	0.6	0	1.0	1.4	0.1	0	0.7	0.2	0.5
Malloda	1.6	0	0.3	0.3	0.4	1.0	1.2	0.5	0.66
Panga	0	0	0.9	0.8	0.3	0	0.8	0.4	0.4
Axe	1.4	0	0.4	0.7	0.2	0.5	0.9	0.3	0.55
Total	3.6	0	2.6	3.2	1.0	1.5	3.6	1.4	2.11
n	10	10	10	10	10	10	10	10	80

TABLE 60

TOTAL SEED AVAILABLE & AREA PLANTED

Location	Feddan per H.hold	Relief Seed Kg	Local Seed Kg	Total Seed Kg	Apparent Seed Rate Kg/Feddan
Kimatong	3.8	3.8	26.6	30.4	8.0
Chukudum	5.8	7.1	35.6	42.7	7.4
Lorema	4.7	17.7	33.5	51.2	10.8
Kikilai	3.8	1.3	35.5	36.8	9.7
Faraksika	7.8	0.5	74.0	74.5	9.6
Nagishot	2.5	0	31.1	31.1	12.4
Nakawo	2.7	2.8	25.5	28.3	10.5
All	3.9	4.4	45.3	49.7	12.74

9. STATE OF THE CROPS

Following the late onset of rains in the adjacent districts this year a large number of birds (Quaelia quaelia) migrated to Chukudum area, their breeding season co-inciding with a lack of alternative food in other locations. The first highland cultivation suffered severely from bird damage in June/July, especially sorghum and the August harvest was insignificant.

At the same time, in June, poor rains in Chukudum itself was affecting the second crop in the lowlands. (See Assessments by UN, SRRA, EEC). During these assessments the crop status in Nagishot was found to be excellent, but the lowlands around Chukudum and some of the highlands of Boya had indeed suffered from a lack of rains. It was estimated that the crop would be some 75 - 80% lost, unless rains came. In Lauru and Nathilani the team observed "complete crop failure". in the lowlands some termite damage was observed to maize, causing it to perform badly.

People in the area also reported that they no longer had any Finger Millet, a crop that had previously been an important lowland staple. The last seeds had been lost in the floods of 1988.

Estimated yields could be very tentatively set at 2 sacks per feddan for all plantings together, a reflection of the difficulties faced this year. With an average farm size of 3.9 feddan that would give each family 8 sacks (700kg). The 18,500 farm families in the district could therefore have produced a total tonnage of 12,987 MT of which some 6% (850 MT) was produced from the inputs provided by World Vision and Unicef. (The 60 MT provided would have covered 4,724 feddan at 12.7 kg/feddan which would have produced some 850 MT food).

10. CONCLUSION

The main problem with assessment of the Chukudum programme is that we cannot say exactly what was sent there. It is clear that the inputs were very late and efforts should have been made to supply the area sooner. The problems experienced by Oxfam were not formally announced until late in the season, whereupon Unicef and World Vision diverted supplies. Even despite being supplied with some 60 MT seed, the average receipts per family and per village are very variable and further investigation might be worthwhile.

SECTION 4 :
FINAL POINTS

FINAL POINTS

To reiterate the conclusions presented in the summary section of this report, the following points are considered apposite:

1. There remains a major deficit of agricultural tools in SPLA/M-administered southern Sudan.

2. The potential for local seed preservation is great and should be given priority consideration.

3. Any future projects should design simple universal ledger -type record keeping systems and ensure these are kept at all appropriate levels.

4. Future projects would benefit considerably from having specific personnel assigned to specific jobs, both from the SRRA and counterpart agency.

5. We should continue to work closely with traditional authorities and women in assessing and implementing programmes in southern Sudan.

6. Serious consideration should be given to the northern districts (Upper Nile, Bahr el Ghazal, northern Jonglei).

In undertaking this survey, the 17 SRRA staff and counterparts learned a great deal about agricultural systems all over southern Sudan and about techniques of data collection and analysis. The aim of strengthening the capacities of indigenous agricultural officers has thereby been met and if asked to write up a plan for another such programme,team members would, no doubt, have a number of suggestions to help ensure a smooth and effective programme right through from initial planning to final evaluation.

APPENDICES

SEEDS AND TOOLS PROGRAMMES IN SPLA-CONTROLLED SOUTHERN SUDAN

MONITORING & REPORTING SURVEY

As Discussed at the Agricultural Sub-Committee Meeting
30 June 1990

1. Programme Goals

a) FINAL GOAL: Food Security for people of SPLA-controlled areas.

b) INTERMEDIATE GOAL (Strategy): Supply and Distribution of seeds and tools to a quantified number of farm families.

2. Survey Objectives

a) Ensuring that the goal of provision of seed and tool supplies to farm families has been met and providing this information to the donors.

b) Assessing the performance of the logistics involved in provision of agro supplies to farm families as well as assessing the record-keeping and reporting procedures utilised. Part of this information will be useful for planning a possible seed bank programme for next year.

3. Procedure

a) Sampling: Desirable sampling would be 10% of farm families, 10% of villages, 10% of main centres. However reality will be around ten households in each of an average of 7 villages in each District. At least one of these villages will also be a main centre.

Kapoeta	6 villages	x 10 families	=	60 farmers
Torit	10 villages	x 10 families	=	100 farmers
Bor	6 villages	x 10 families	=	60 farmers
Nasir	7 villages	x 10 families	=	70 farmers
Pibor	5 villages	x 15 families	=	75 farmers
Ayod	6 villages	x 10 families	=	60 farmers
Kajo Keji	10 villages	x 10 families	=	100 farmers
Total	50 villages	= 525 farmers		

The actual percentage represented by the sample will be established once the survey is complete, but will be approximately 8% of villages and around 1% of farmers.

b) Timing: The final report should be ready by mid-August Each area will be surveyed for approximately one week as per the attached survey schedule and surveying will start in Torit on 11 July.

c) Personnel: There will be a supervisory team which will work with each team for the initial two to three days of surveying in each area. This will be made up by Acuil Malith, SRRA Agricultural Co-ordinator and Mabior Deu, SRRA Planning Co-ordinator and will be joined by Humphrey Were, Unicef Project Officer, Torit & Agriculture Co-ordinator, Patta Scott-Villiers, Unicef Tracking and Evaluation Officer and Albino Oketch, SRRA Agricultural Logistics Officer.

There will be three teams covering six areas. Apart from being assisted by the supervisory team, these teams will also include staff of the NGOs responsible for seed and tool provision in each area. World Vision will be invited to help oversee and survey in Kapoeta area, CRS, Diocese of Torit and Unicef in Torit area, Unicef in Bor, Ayod, Nasir and Pibor areas.

The teams will consist of the following personnel:

TORIT:	Alesio	SRRA Agric. Officer Torit
	Arcangelo	" " " "
	Manex	" " Assistant "
	Edwin	" " " "
	Delphino	" " " "
	(Dominic)	" " " "
	(John Miller)	" " " "
	Father Garry	Diocese of Torit
	Humphrey Were	Unicef Prog. Officer Torit

Team Leaders: Alesio/Were/Garry
Data collation: Alesio, Arcangelo, Dominic

BOR:	Ezra	SRRA Agric. Officer Bor
	Garang	" " " "
	Ojara	" " " Torit
	Albino	SRRA Agric. Logicstics
	Ruth Oloo	Unicef Agric. Monitor
	Tom Sampson	" " "

Team Leaders: Albino/Ruth
Data collators: Ojara, Ezra, Garang

NASIR:	Angelo	SRRA Agric. Officer Nasir
	John Miller	" " " Torit
	Wol	" " " Kapoeta
	Luka	" " " "
	Eli	" " " "
	Patta	UNICEF Tracking Officer

Team Leaders: Angelo/Patta
Data Collators: Eli, Luka, Wol

PIBOR:	Alier	SRRA Agric. Officer. Pibor
	Dominic	" " " Torit
	Manex	" " " "
	Delphino	" " " "
	Tom Sampson	UNICEF Agric. Monitor
	Humphrey Were	UNICEF Prog. Officer

Team Leaders: Alier/Were
Data Collators: Dominic, Manex, Delphino

AYOD:	Alesio	SRRA Agric. Officer, Torit
	Arcangelo	" " " "
	Ojara	" " " "
	Ezra	" " " Bor
	Garang	" " " "
	Ruth	UNICEF Agric. Monitor

Team Leaders: Alesio/Ruth
Data Collators: Alesio, Arcangelo, Ojera

KAPOETA:	Eli	SRRA Agric. Officer, Kapoeta
	Luka	" " " "
	Wol	" " " "
	Albino	" Agric. Logistics
	Mark Lewis	World Vision Field Officer

Team Leaders: Eli/Mark
Data Collators: Eli, Luka, Wol

KAJO KEJI: To be discussed

d) Enumeration: Each team will first interview the Branch Agricultural Officer to ascertain details of arrival and despatch of seeds and tools and random check waybills and store ledgers. In addition the agricultural officer will clarify the means of distibution planning and actual distribution to primary centres from the main centre.

Each team will then pick a number of primary centres for sampling. This will be done on a stratified random sample basis. At the primary centre the local authority (agricultural assistant or chief) will be asked similar questions to those asked of the Branch Officer.

As a result of the interview at the primary centre the team will choose A number of villages by stratified random sampling. At the village the team will interview the sub-chief or other authority using the same questionnaire as above. The supervisory team will take responsibility for asking chiefs and sub chiefs their opinions of a possible seed bank project. The team will then split into groups of two who will each interview three to five farmers.

4. Collation

Three or four members of each team will be responsible for primary collation of the data in terms of calculating average number of farmers who received assistance, average quantity received and proportion of relief to local seed. Forms and summaries will then be available to those compiling the final report.

5. Final Report

Data will be analysed and the final report will be compiled by the team leaders of each team alongside the supervisors in Kapoeta between the 9th and 15th August. It is hoped that the large room in the Kapoeta Unicef house might be made available for this task. The final typing and layout will be undertaken by the Unicef Tracking Officer in Nairobi.

6. Transport

The survey will rely on the existing flight schedule of the UN Twin Otter to ensure personnel movement - changes in the schedule may result in confusion of the itinerary. A detailed request for personnel flights is attached.

In addition two vehicles will be required in Torit, Bor and Kapoeta for personnel transport. It is sincerely hoped that Achuil's vehicle is repaired by the start of the survey on 11th July. This vehicle will move from Torit to Bor and then to Kapoeta. In Torit itself the assistance of a Diocese car for covering CRS/Diocese seed distribution areas will be cordially requested. In addition it is hoped that the clutch problem with the Unicef car can also be fixed. In Bor, the assistance of the Unicef vehicle may also be required to a certain extent although the team will probably fit into one after the supervisory group have moved on. In Kapoeta it is hoped that World Vision might be able to provide a vehicle to complement that of Achuil.

In Nasir transport will be by boat, for which the WFP-supplied outboards have been repaired.

In Ayod and Pibor transport will be on foot and will be difficult and slow.

SEED & TOOL MONITORING & REPORTING SURVEY 1990

QUESTIONNAIRE 1 (Officials)

Enumerator_____ Respondent_____
(Name & Title)

Location (Village, Area, District)

1. Summary of Receipts and Despatches (Attach)

2. Period of Receipt, was this a good or bad time? Give reasons:

3. Condition of items received:

4. Storage facilities utilised, capacity and state of stores:

5. Recording system for arrivals, store inputs, store issues, despatch, receipt by primary centres, secondary centres and farmers. Summarising system for all the information:

6. Comments on the purpose of recording and systematic reporting:

7. Distribution Plan: Who made it, on what basis was it made, when was it made and why?

8. Actual Distribution: How was it done from the main centre to the primary and secondary centres, when, who did it and supervised it, to whom were the goods consigned, how was distribution recorded?

9. Comments on forms I and II. Possible changes:

10. Comments by respondent:

11. Observations by Interviewer:

SEED & TOOL PROGRAMME MONITORING & REPORTING SURVEY

QUESTIONNAIRE 2 (Farmers)

Enumerator_____ Respondent_____

Location (Village, Area, District)

1. Seeds and Tools received and when:

Item	Quantity	Date of receipt

2. What was the quality and condition of seeds/tools? (Also add comments made to you on time of arrival and amount and type of seed but if the respondent does not mention this do not ask yourself until end of interview):

3. Local seed and tools available this year to the farmer:

Item	Quantity	Source

4. Comments on the performance of local and relief varieties, including drought/pest/flood resistance, cropping period, storage life, taste etc.

5. How much local and relief seeds and tools did the farmer have in 1989.

6. From what distribution centre did the 1990 relief seed/tools come, how far away and how were they collected:

7. On what basis was the distribution decided upon (who got what and why) and how was it done:

8. How many feddans were planted (both local and relief seeds):

Item	Qty Used	Area	Date

9. Were the seeds and tools suitable/useful/sufficient and timely, if no give reasons:

10. Respondent's comments:

11. Enumerator's Observations:

02/08/1990

SEED & TOOL PROGRAMME MONITORING & REPORTING SURVEY

QUESTIONNAIRE 2 (Farmers)

Enumerator: Longa D. Aur Respondent: FESTO Lodia

Location (Village, Area, District): KAJOKEJI
RODO KANSUK

1. Seeds and tools received and when:

Item	Quantity	Date of Receipt
1- MAIZE	500 GRM	RECEIVED IN JULY
2- BEANS	500 GRM	" " "
TOOLS		
HOE	1	RECEIVED IN APRIL
PANGA	1	" " "
AXE	1	" " "

2. WHat was the quality and condition of the seeds/tools provided? (Also add comments made to you on time of arrival, amount and type of seed supplied, but only if the respondent tells you - do not ask about this yourself until the end of the interview):

THE QUALITY ~~WAS~~ OF THE SEEDS AND TOOLS WERE GOOD. THE TIME OF ARRIVAL WAS GOOD BUT IF THE TOOLS ARE TO BE PROVIDED AGAIN, IF THE TOOLS SHOULD BE BROUGHT EARLIER.

3. Local seed and tools available to farmer this year:

Item	Quantity	Source
SEEDS		
1- MAIZE	15 KG	(RESERVED SEED)
2- G/NUTS (UNSHELLED)	3 BAGS	FROM HIS OWN
3- CASSAVA	-	LAST YEAR
4- BEANS	2 KG	HARVEST
5- F/MILLET	4 KG	
6- S/POTATOES	-	
7- SIMSIM	1 KG	11
8- LOCAL SIMSIM (KIND)	½ KG	
TOOLS		
1- HOE	1	BOUGHT FROM BLACK SMITH

4. Comments on the performance of local and relief varieties of seed including drought/pest/flood tolerance, cropping period, storage properties, taste etc:

The Relief seeds were doing OK in Germina But when affected with drought nothing will be got from the crops
The local crops are a bit resistant to drought as such some of the crops the drought gives some sustained farm to feed on for a while. when with something 4 varieties of seeds will do all cropped in one field alright, the taste is very good.

5. How much local and relief seeds and tools did the farmer have in 1989: (Give total local and total relief):

Local seeds

	QNT
(1) Maize	15 Kg
(2) C/Grains	4 Kg
(3) G/nuts	3 Bag
(4) Cassava	1 bed
(5) S/Potatoes	
Alimasina	1 Kg
(6) Local Simsim / Kenu	Kg
(7) Cowpeas	2 Kg

~~Labels~~

Tools

HOE	1

6. From what distribution centre did the 1990 relief seed/tools come, how far away is this centre and how were the items collected

- The tools/Seeds were received from Kumsak secondary distribution Centre.
- From the secondary distribution Centre to Rodo is 3 miles.

The ~~R~~ Seeds and tools were issued to me and I carried them at home by hand