Labour Intensive Special Public Works Programme
El Obeid Area Council

Socio - Economic Survey Report

Prepared by
M. O. EL SAMMANI
Assisted by T. M. TAHIR

Khartoum,
September, 1987
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INTRODUCTION
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INTRODUCTION

1.1. Background to the Report

"With the success of the on-going Labour Intensive Special Public Works Programme (SPWP) in the White Nile Province, a programme on similar lines was prepared jointly between the Sudanese officials at Central, Region, Provincial Government, and District Council as well as a team of ILO experts, in September 1986, for Kordofan Region. In summary the selected projects include the following:

Rural Water Supply: rehabilitation of four existing hafirs, construction of six new hafirs and construction of ten new shallow wells; about 16,200 people will be provided with safe drinking water.

Agricultural Development: rehabilitation of two existing water spreading dykes and the construction of 17 new dykes to develop agricultural potential and control soil erosion; agricultural area of 3,225 Ha will be opened up for development; traditional storage facilities will also be provided.

Afforestation: establishment of four new nurseries together with provision of twelve shelter belts and six sand dune stabilization schemes; a total area of 320 Ha.

Village Level Infrastructure: construction of two new school dormitories and four new veterinary clinics and rehabilitation of numerous selected buildings."

The programme shall be implemented in El Obeid District of North Kordofan Province, at 13 Project Sites, spread in the four Rural Councils, comprising the District, Fig.1. The different components of the programme will be combined into an integrated development of the four Rural Councils, concerned and supported activities will be initiated during the implementation phase in close cooperation with the various COEs and other development agencies.

As the programme stands at present the nucleus development at the 13 suggested sites includes:

1. Umm Usheira:
   (i) Village Level Infrastructure
       - rehabilitation of existing boys and girls school.
       - two new dormitories including sanitation
       - rehabilitation of dispensary.
       - a new veterinary clinic.
   (ii) Afforestation
       - establishment of nursery and shelter belt.

2. Fangora (En Nila):
   (i) Agricultural development
       - construction of 3 water spreading dykes for agricultural development.
   (ii) Rural Water Supplies
       - rehabilitation of existing hafir.
   (iii) Afforestation
       - establishment of shelter belt.

3. Abu Simun (Deba Nayer):
   (i) Agricultural development
       - construction of 3 water spreading dykes.
(ii) Rural Water Supplies  
- rehabilitation of hafir  

(iii) Afforestation  
- establishment of shelter belt.

4. Umm Arada:

(i) Village infrastructure  
- rehabilitation of existing infrastructure buildings.

(ii) Agricultural development  
- rehabilitation of existing water spreading dyke.  
- construction of 5 new water spreading dykes.

(iii) Rural Water Supplies  
- construction of 2 new hafirs  
- digging of 10 new wells (2 per dyke)

(iv) Afforestation  
- establishment of shelter belt and sand dune stabilization.

5. Umm Remad (Uggul):  

(i) Village level infrastructure  
- rehabilitation of existing infrastructure buildings.

(ii) Rural Water Supplies  
- rehabilitation of existing hafir.

(iii) Afforestation  
- tree planting and watering of *Acacia senegal*.

6. Abderbein:

(i) Rural Water Supplies  
- construction of a new hafir.

(ii) Afforestation  
- establishment of shelter belt and sand dune stabilization.
7. Abu Hergz:
(i) Village level infrastructure buildings
    - rehabilitation of existing infrastructure buildings.
    - new veterinary clinic.
(ii) Afforestation
    - establishment of a nursery, shelter belt and sand dune stabilization.

8. Kazzoll:
(i) Village level infrastructure
    - rehabilitation of existing infrastructure buildings.
    - new veterinary clinic.

9. Geibat:
(i) Rural Water Supplies
    - construction of new hafir with silt trap.
(ii) Afforestation
    - establishment of nursery and shelter belt/sand dune stabilization.

10. El Birka (Ab-Janjera):
(i) Rural Water Supplies
    - construction of a new hafir.
(ii) Afforestation
    - establishment of a shelter belt.

11. El Hammadya:
(i) Rural Water Supplies
    - rehabilitation of existing hafir.
(ii) Afforestation
    - establishment of shelter belt.
12. Jebel Kordofan:
   (i) Rural Water Supplies
       - construction of a new hadir.
   (ii) Afforestation
       - establishment of shelter belt.

13. Ban Gadsid:
   (i) Agricultural development
       - construction of 3 new water spreading dykes.
       - rehabilitation of existing water spreading dykes.
   (ii) Village level infrastructure
       - new veterinary clinic.
   (iii) Afforestation
       - establishment of a nursery and shelter belt/sand dune stabilization.

1.2. A Socio-economic Survey Component

As one of the preparatory steps taken for launching the above programme, ILO funded a socio-economic survey, the subject of the present report, to furnish supporting data to facilitate implementing the programme. The survey is to cover the 13 project sites with emphasis on the following aspects as spelt out in the terms of reference:

1.2.1. Scope of the Survey

The following items were to be treated within sampled villages and through inter village samples:

- Family size, educational levels and employment,
- availability of basic needs such as water, food and energy sources,
Nutrition and health levels,
agriculture and other forms of production in the area,
traditional storage facilities available,
infrastructural facilities,
recreational facilities,
leadership,
organizational structures and institutions, and,
ongoing projects; government, UN agencies, NGOs, and others.

1.2.2. Guidelines

These broad guidelines were also furnished to gear the survey to its targeted objectives:
- Identification of grass-roots needs, constraints and community participation potential.
- Determination of labour availability and conditions there of.
- Carrying out of conscious awareness activities regarding the proposed programme.
- Tabulation and analysis of the collected data to work out the social and economic conditions of the villages of the area.
- Making recommendations based on the findings of the survey for increasing and improving the social and economic standard of the people.
- Formulation of a framework for indepth follow-up of socio-economic studies in the programme area.
1.3. The Survey

1.3.1. Duration and Team Composition

The survey was conducted in the period from 20th of July to 13th of August covering the 13 Project Sites, including visitation to some of the Region's government offices for interviews with concerned officials and for collection of office data. An itinerary of the visits made and the officials met is supplied as Annex II of the report. The team which conducted the survey was comprised of the writer of the report, assisted by Sayed/Tahir Mohamed Tahir of the Ministry of Labour, and Sayed/Adam Abdallah Hamdok who was assigned collection of some office data.

1.3.2. Survey Methods

Due to the limited time available to the team, only one day per village site, entailed by the extensive travel between villages and the rainy season conditions, the team opted for group interviews and small sample questioning. At each village visited the team chose to see the village Sheikh first, as an essential focal point of the village community. In almost all cases the Sheikh succeeded in assembling those heads of households present at the time for an ad hoc meeting at his residence. In a number of cases the team succeeded in preparing for this meeting with the Sheikh 1 to 2 days prior to visiting the village.
In this general meeting, stock data covering the various socio-economic aspects of village conditions was collected. Following that, a sample of 10 farmers was taken at random from those present, and individually questioned on production and income generation activities. The survey was thereafter concluded by making visits to the infrastructural facilities available at the village, during which time consultation with the staff in charge of these services were made.

This method, and the procedure adopted, proved to be very effective, both in meeting the survey requirements, and in preparing the project site communities for the implementation phase of the programme, which is by now is well known to all to be started by December 1987. To judge the effectiveness of the methods applied, the depth of data collected and its reliability, Table 1 exhibits the number of participants by village who attended the meetings and the ratio of the 10 farmers sample to those participating.

The ratio of participant farmers ranged from 5.42 to 80 per cent and that of the 10 farmers sample out of those participating, from 6.67 per cent to 50.00 per cent. The cumulative average of the two is 25.79 and 32.08 per cent respectively. Since in socio-economic surveys 5 per cent coverage denotes acceptable reliability, the credibility of the collected data becomes well established.
Table 1: Size of sample coverage expressed as percentages of households in village and of those attending survey meetings

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<th>Estimated Village Population</th>
<th>Estimated Number of Households</th>
<th>No. of Households Attending the Meeting</th>
<th>Percentage of the 10 to Village Farmers' Households' Sample</th>
<th>Percentage to Household Attending Meeting</th>
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<td></td>
</tr>
<tr>
<td>4.1. Hafnadiya</td>
<td>1217</td>
<td>160</td>
<td>50</td>
<td>31.25</td>
<td>10</td>
</tr>
<tr>
<td>4.2. Jebel Kordofan</td>
<td>854</td>
<td>120</td>
<td>20</td>
<td>16.67</td>
<td>10</td>
</tr>
<tr>
<td>4.3. Dan cadeil</td>
<td>6820</td>
<td>850</td>
<td>50</td>
<td>5.89</td>
<td>10</td>
</tr>
<tr>
<td>Total/Averages</td>
<td>34335</td>
<td>3934</td>
<td>560</td>
<td>25.79</td>
<td>10</td>
</tr>
</tbody>
</table>

--- Averages ---
1.3.3. Data Tabulation

Many sets of data were driven from the survey results and utilized in the analysis of the topics tackled. Of special mention in this respect is the data furnished by the 10 farmer's sample chosen at each of the 13 sites. This data was treated at two stages involving tabulation of the field results included in the report as Annex I,(*) and preparation of tables used at various positions in the report, summarizing the main findings of the exercise. Annex I basically covers:

i) Some of the demographic features (1986/87)
   - village ethnic composition,
   - village households (H/H) numbers,
   - village population size,
   - size of H/H,

ii) Crop raising activity (1986/87)
   - soil types,
   - crop types,
   - H/H acreage,
   - H/H production,
   - yields,
   - labour situation,
   - crop values.

(*) Three master sheets, received by ILO Office Khartoum for production of copies.
iii) Livestock raising activity
   - Types of animals raised,
   - H/H livestock ownership prior to 1984 drought,
   - H/H livestock losses as a result of the drought,
   - H/H livestock ownership, 1986/87,
   - livestock sales and values, 1986/87.

iv) H/H income generation from off-farming activities:
   - Selling of fuel wood, charcoal and building material,
   - employment within area, embracing: agricultural wage labour, other businesses, and employment in government services,
   - employment outside the area.

v) H/H income situation as generated from:
   - Staple grain crops,
   - cash crops,
   - livestock,
   - fuel wood, charcoal, and building material.

vi) H/H staple grain status and cash balance:
   - Dura needed by H/H,
   - dura produced by H/H,
   - dura stored by H/H,
   - expenditure on balance required,
   - cash surplus available to H/H.
The 10 summary tables founded on the above data focus on:

i) Crop raising
   - Labour situation,
   - yields,
   - contribution of staple grains and cash crops,
   - H/H dura production: frequency of sufficiency, deficiency and stored surplus.

ii) Livestock raising
    - H/H ownership prior and after 1984/85 drought,

iii) Income generation
     - Contribution of staple grains and cash crops to H/H income,
     - contribution of livestock to H/H income,
     - frequency of income generation from off-farming activities,
     - H/H income sources and weighted values,
     - H/H dura supply status, cash balance and per capita cash income.

Apart from the above, the report includes other sets of data which were tabulated and referred to as required in analysing the various aspects treated.

1.3.4. Maps

The report embraces 13 Figures. Fig.1 shows the location of the 13 project sites. It is worth mentioning in
Fig. (1) Proposed sites of public work programme

- Umm Usheira
- Fangoga
- Abu Sinun
- El Hammadiya
- Jebel Kordofan
- Ban Gadeid
- Kazgel
- Gaibal
- El Birka (Ab-Janjara)

Scale 1:100,000
this respect that 3 of the villages namely Umm Usheira, Abderhein and El Birka were mislocated in the initial programme report, and this was corrected in Fig.1 of the present report. It is also to be remarked that spelling of the names of the 13 villages was corrected according to the indication in the 1:250000 maps. Also for 2 villages Abu Simun and El Birka, in which case the name refers to an agglomeration of villages, the ones earmarked for the project were identified. In the first case it is Abu Simun: Daba Nyor, and in the second it is El Birka Al-janjara, or El Birka Sheikh Salim.

Figures 3-13 indicate the catchment area or the socio-economic envelope served by each project site. Those shall be referred to when tackling issues related to existing community services, and sources of labour for the (SPWP), in part II of the report.

1.4. Report Organization:

Organizing the report entails meeting two requirements, tackling aspects of general grounds, and specifically accounting for each of the 13 project sites. This is thought to be met through dividing the report in two parts, and adopting the following layout of chapters.

PART I: MAIN REPORT:

Chapter I: Introduction

II: Project Area: Main Production and Economic Aspects.

III: Administrative and Services Infrastructure Set-up.

PART II: PROJECT SITES: (By Rural Council)

Chapter IV: Umm Usheira Rural Council.

V: Abu Haraz Rural Council.

VI: Kazgeil Rural Council.

VII: Khor Taggat Rural Council.

VIII: Recommended Indepth Socio-economic Studies.
CHAPTER II

THE PROJECT AREA: MAIN PRODUCTION, AND

ECONOMIC ASPECTS
CHAPTER II

THE PROJECT AREA: MAIN PRODUCTION, AND ECONOMIC ASPECTS

2.1. Introduction

The project area refers to the 13 project sites located within El Obeid District and the 4 Rural Councils to which they belong. Since the 13 villages selected for the (SPWP) could have been some other villages in the District, and as equally they are intended to be piloting sites for trial and extension of results to other places, a broader tackling of the project area is thought essential for revealing the potential and constraints of implementing labour-intensive programmes in the District.

The aspects examined cover general background information on the District and the 4 Rural Councils, and treatment of specific topics in line with those handled at the project site level. By adopting such a procedure, it will be possible to see the findings reached at site level, related to conditions at the District and Rural Council level.

2.2. Population

Ethnically El Obeid District is dominated by El Bederiya tribe. However, ethnic groups of different backgrounds are to be found as well, and at many project
sites they predominate exclusively.

According to 1983 Census the District had a population of 314,660 persons including El Obeid Town. Administratively the district has 7 council units: 2 town councils covering El Obeid Town, 4 rural sedentary population councils, and 1 nomads population council. The 4 rural sedentary councils have a population of 96,226 persons, Table 2.

Table 2: Population of the 4 Rural Councils

<table>
<thead>
<tr>
<th>Rural Council</th>
<th>Total Population</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Umm Usheira</td>
<td>16,434</td>
<td>7,560</td>
<td>8,874</td>
</tr>
<tr>
<td>Abu Haraz</td>
<td>30,303</td>
<td>13,940</td>
<td>16,363</td>
</tr>
<tr>
<td>Kazgeil</td>
<td>24,985</td>
<td>11,493</td>
<td>13,492</td>
</tr>
<tr>
<td>Khor Taqqat</td>
<td>24,502</td>
<td>11,516</td>
<td>12,986</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>96,224</strong></td>
<td><strong>44,509</strong></td>
<td><strong>51,715</strong></td>
</tr>
</tbody>
</table>

Source: El Obeid District Office files

The 15 villages covered by the (SPWF) (Table 1) embracing 2 sites in Umm Usheira Rural Council, 4 in Abu Haraz Rural Council, 3 in Kazgeil Rural Council and 3 in Khor Taqqat Rural Council, touch on a population of 34,335 persons, comprising 3,934 households. This population size makes 35.68% of the total population of the 4 rural councils, which indicates the extent of benefits accruing to the population of the project area from implementing the (SPWF).
These benefits even extend further to cover other populations inhabiting the villages located within the socio-economic envelopes of 11 out of the 13 project sites, since the agglomeration of village infrastructural services at these places serve a catchment area of villages in their vicinity. Based on Table 1, and Figures 2-12, the size of population influenced by the (SPWP) goes far beyond the 34,335 persons comprising the population of the 13 sites, as may be depicted from Table 3, which reveals that about 200 villages shall benefit in one way or another from the project.

<table>
<thead>
<tr>
<th>Project Site</th>
<th>Population</th>
<th>H/H</th>
<th>No. of villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Umm Usheira</td>
<td>850</td>
<td>90</td>
<td>17</td>
</tr>
<tr>
<td>1.1. Umm Usheira</td>
<td>930</td>
<td>130</td>
<td>20</td>
</tr>
<tr>
<td>1.2. Pangoga</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Abu Haraz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1. Abu Sinun (Daba Nayer)</td>
<td>500</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>2.2. Umm Arada</td>
<td>2,250</td>
<td>250</td>
<td>20</td>
</tr>
<tr>
<td>2.3. Umm Danad</td>
<td>2,812</td>
<td>325</td>
<td>8</td>
</tr>
<tr>
<td>2.4. Abdorbein</td>
<td>600</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>2.5. Abu Haraz</td>
<td>6,632</td>
<td>700</td>
<td>35</td>
</tr>
<tr>
<td>3. Kazgeil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1. Kazgeil</td>
<td>8,000</td>
<td>830</td>
<td>16</td>
</tr>
<tr>
<td>3.2. Ghamat</td>
<td>2,200</td>
<td>270</td>
<td>27</td>
</tr>
<tr>
<td>3.3. El Birka (Ab-Janjera)</td>
<td>700</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>4. Khor Taghat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1. El Hammadiya</td>
<td>1,217</td>
<td>160</td>
<td>7</td>
</tr>
<tr>
<td>4.2. Jebel Kerofan</td>
<td>854</td>
<td>120</td>
<td>7</td>
</tr>
<tr>
<td>4.3. Ban Gadeid</td>
<td>6,820</td>
<td>830</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>34,335</td>
<td>3,334</td>
<td>198</td>
</tr>
</tbody>
</table>
Considering household size, it ranges from 7.3 to 9.9 persons from one project site to another, giving an average of 8.5 persons for the project area, column 3, Annex I.

2.3. Economy

2.3.1. General

The well spread location of the 13 project sites, as representing conditions of the different parts of the district, enable extrapolating results from the site findings to account for the economy of the district. This shall be based on Annex I, and the summary tables extracted from this Annex.

The economy of the district is founded on dry farming, as a major activity, supported by livestock raising and the sales of forestry products as subsidiary agrarian activities, as well as on employment within and outside the area as a source of income generation. In the forthcoming sections each of these activities shall be accounted for, to reveal their role in the livelihood of the population of the area and their contribution to household sustenance.

2.3.2. Crop Raising

2.3.2.1. Rainfall

The type of dry farming practiced in the area is wholly dependent on the annual rainfall. The project
area, lying between Lat. 12°30' and 15°30' (Fig. 1), falls within the Sahelian zone which receives an annual rainfall of 100-500 mm in 3 rainy months (July-September) with a rainfall variability of 25-35 per cent. Rainfall annual means of El Obeid with its central position within the project area, implying increasing amounts south of it and decreasing amounts north of it, are indicative of the rainfall conditions in the project area.

Table 4: Annual Rainfall Means of El Obeid Town, 1980/81-1986/87

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Mean mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980/81</td>
<td>383</td>
</tr>
<tr>
<td>1981/82</td>
<td>311</td>
</tr>
<tr>
<td>1982/83</td>
<td>297</td>
</tr>
<tr>
<td>1983/84</td>
<td>481</td>
</tr>
<tr>
<td>1984/85</td>
<td>161</td>
</tr>
<tr>
<td>1985/86</td>
<td>377</td>
</tr>
<tr>
<td>1986/87</td>
<td>223</td>
</tr>
</tbody>
</table>

Under such dry climatic conditions, it is not only the total amount of rainfall received in a year which determines the performance of crop farming, but equally important is the distribution of rains throughout the cropping season. At a number of project sites, in both the northern and southern parts of the area, farmers referred for example, their 1986/87 crop failure or low yields to rainfall shortage.
2.3.2.2. Soils

The main soil type cultivated is the Qoz (sandy) soil, geomorphologically in the form of stabilized sand dunes and sand sheets. Other soil types attempted are pediplain (gardud) soils and clay (tein or neila) soils. From Annex I columns 5 to 7, it is evident that in all of the project sites the sandy soil predominates the other two, due to a number of conditioning factors:

- high percolation rate, hence efficiently utilizing the limited amount of rainfall received,
- suitability for a wide range of crops,
- less weed infestation, and
- light to work.

When compared to gardud and tein/neila soils, these besides being on the negative side for all above listed factors are susceptible to flooding, which results in loss of crops as reported by farmers at many of the sites surveyed.

2.3.2.3. Crops

Annex I columns 8 to 17 reveal that 4 main crops are cultivated in the project area, namely dukhn (pearl millet), marig/nagad (Sorghum) sesame and groundnuts. Of these sorghum is less practiced than the others. Kerkadah as a familiar cash crop, especially in the southern parts of the project area has not been cultivated for the last
### Table 5: Crop Acreage (in Makhame)

<table>
<thead>
<tr>
<th>Village</th>
<th>Total Household Acreage</th>
<th>Dukhan</th>
<th>Percentage of Total Household Acreage</th>
<th>Waraq/Negaz</th>
<th>Percentage of Total Household Acreage</th>
<th>Sesame</th>
<th>Percentage of Total Household Acreage</th>
<th>Groundnut</th>
<th>Percentage of Total Household Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>1.1. Umm Ubeira</td>
<td>15.08</td>
<td>7.55</td>
<td>50.06</td>
<td>0.20</td>
<td>1.33</td>
<td>7.28</td>
<td>46.28</td>
<td>0.05</td>
<td>0.33</td>
</tr>
<tr>
<td>1.2. Fangasa</td>
<td>14.80</td>
<td>7.15</td>
<td>46.31</td>
<td>0.00</td>
<td>0.00</td>
<td>7.65</td>
<td>51.69</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2.1. Abu Sinun</td>
<td>17.00</td>
<td>7.90</td>
<td>43.09</td>
<td>0.00</td>
<td>0.00</td>
<td>9.30</td>
<td>54.71</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2.2. Umm Areida</td>
<td>10.75</td>
<td>5.15</td>
<td>47.91</td>
<td>1.15</td>
<td>10.70</td>
<td>3.85</td>
<td>35.81</td>
<td>0.65</td>
<td>5.56</td>
</tr>
<tr>
<td>2.3. Umm Resad</td>
<td>12.00</td>
<td>4.80</td>
<td>37.50</td>
<td>0.15</td>
<td>1.67</td>
<td>6.40</td>
<td>55.33</td>
<td>0.90</td>
<td>7.50</td>
</tr>
<tr>
<td>2.4. Abderbein</td>
<td>8.20</td>
<td>3.75</td>
<td>45.73</td>
<td>0.20</td>
<td>2.44</td>
<td>3.50</td>
<td>42.68</td>
<td>0.75</td>
<td>9.15</td>
</tr>
<tr>
<td>2.5. Abu Hareb</td>
<td>12.30</td>
<td>5.25</td>
<td>42.68</td>
<td>0.50</td>
<td>4.07</td>
<td>5.90</td>
<td>47.97</td>
<td>0.65</td>
<td>5.28</td>
</tr>
<tr>
<td>3.1. Kasqeli</td>
<td>12.50</td>
<td>5.05</td>
<td>46.80</td>
<td>0.90</td>
<td>7.20</td>
<td>4.75</td>
<td>38.00</td>
<td>1.00</td>
<td>8.00</td>
</tr>
<tr>
<td>3.2. Gaitat</td>
<td>10.48</td>
<td>3.65</td>
<td>34.83</td>
<td>2.33</td>
<td>22.23</td>
<td>3.50</td>
<td>33.40</td>
<td>1.00</td>
<td>9.54</td>
</tr>
<tr>
<td>3.3. El Birka Ab-Janjara</td>
<td>10.30</td>
<td>4.10</td>
<td>39.81</td>
<td>0.75</td>
<td>7.26</td>
<td>4.20</td>
<td>40.78</td>
<td>1.25</td>
<td>12.14</td>
</tr>
<tr>
<td>4.1. El Farasadiya</td>
<td>15.30</td>
<td>7.50</td>
<td>49.02</td>
<td>0.00</td>
<td>0.00</td>
<td>7.80</td>
<td>50.98</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4.2. Jebel Yosefene</td>
<td>10.40</td>
<td>4.50</td>
<td>43.27</td>
<td>2.20</td>
<td>21.15</td>
<td>3.60</td>
<td>34.62</td>
<td>0.10</td>
<td>0.96</td>
</tr>
<tr>
<td>4.3. Pan Gedeid</td>
<td>7.25</td>
<td>3.65</td>
<td>50.31</td>
<td>1.10</td>
<td>19.17</td>
<td>2.00</td>
<td>27.99</td>
<td>0.50</td>
<td>6.90</td>
</tr>
<tr>
<td>Averages</td>
<td>12.03</td>
<td>5.41</td>
<td>44.97</td>
<td>0.73</td>
<td>6.07</td>
<td>5.36</td>
<td>44.55</td>
<td>0.53</td>
<td>4.41</td>
</tr>
</tbody>
</table>

**Remarks:**
- One Makhame equals 1.5 feddans approximately.
- Average converted into feddans is equivalent to:
  - Average household acreage for project area is 15.02 feddans, dukhan 8.10; Waraq/Negaz 1.10; Sesame 8.00;
  - and Groundnut 0.8 feddan.

**Source:** Annex I, columns 8 to 17.
since the former needs well drained clay to sandy clay soils, while the latter requires higher rainfall plus being more labour-intensive. Dukhun apart from its agro-climatic suitability, is also the preferred staple food grain of the population.

Hence it may be concluded that taking the ecological and socio-economic conditions of the area into consideration, the acreage allocation between the different crops is the maximum the farmer could raise in his attempt to meet his household grain supply and cash needs.

2.3.2.5. Labour situation

Three sources of labour are available to the farmer for field operations. These are: household labour, hired labour and the nafir.¹/Table 6.

1) Household Labour:

Of these sources the main one is household labour, which is conditioned by factors including household size, absence of household members for employment outside the area during the cultivation season, and the financial position of the household which may force some of its members to sell part of their labour. Enrollment in schools was also reported by some farmers as reducing household members contribution to farming operations.

¹ A traditional system of co-operation, organized communally to raise labour for farming operations, especially weeding, and for house construction. The organizer offers some food for the participants in pay back for their work.
<table>
<thead>
<tr>
<th>Village</th>
<th>Acreage cultivated by household (Kachemak)</th>
<th>Household size (persons)</th>
<th>No. household members contributing to agriculture</th>
<th>Plus household head</th>
<th>Ratio household members to agriculture/H/hold size</th>
<th>Household hiring labour</th>
<th>% household hiring labour</th>
<th>% household not hiring labour</th>
<th>% household hiring casual</th>
<th>% household not hiring casual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Yum Yabeira</td>
<td>15.08</td>
<td>9.9</td>
<td>2.5</td>
<td>3.5</td>
<td>35.35</td>
<td>40</td>
<td>60</td>
<td>10</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>1.2. Pangea</td>
<td>14.80</td>
<td>7.5</td>
<td>1.9</td>
<td>2.9</td>
<td>36.67</td>
<td>20</td>
<td>80</td>
<td>20</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>2.1. Abu Sinan</td>
<td>17.00</td>
<td>8.0</td>
<td>2.5</td>
<td>3.5</td>
<td>43.75</td>
<td>60</td>
<td>40</td>
<td>00</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2.2. Yum Arada</td>
<td>10.75</td>
<td>9.9</td>
<td>3.5</td>
<td>4.5</td>
<td>45.45</td>
<td>00</td>
<td>100</td>
<td>00</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2.3. Yum Runa</td>
<td>12.00</td>
<td>8.7</td>
<td>3.5</td>
<td>4.0</td>
<td>37.93</td>
<td>00</td>
<td>90</td>
<td>00</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2.4. Ayder Bein</td>
<td>8.20</td>
<td>7.6</td>
<td>3.2</td>
<td>3.2</td>
<td>33.68</td>
<td>30</td>
<td>70</td>
<td>00</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2.5. Abu Harek</td>
<td>12.30</td>
<td>9.5</td>
<td>2.2</td>
<td>3.2</td>
<td>40.30</td>
<td>10</td>
<td>90</td>
<td>10</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>3.1. Kargail</td>
<td>12.50</td>
<td>9.6</td>
<td>2.9</td>
<td>3.9</td>
<td>40.63</td>
<td>30</td>
<td>70</td>
<td>00</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>3.2. Gabinet</td>
<td>10.43</td>
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<td>(7.3)</td>
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<td></td>
<td>20</td>
<td>80</td>
<td>30</td>
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<tr>
<td>Average</td>
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<td>8.44</td>
<td>3.64</td>
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<td>25.45</td>
<td>78.46</td>
<td>13.85</td>
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</tbody>
</table>

**Source:** Annex 1, columns 18 to 23.
From data gathered at 9 project sites (missed for the other 4) Table 6, about (40.79%) of the household members (8.54 persons) participate in the farming activities. A division of labour by age and sex is realized in conducting field operations, which takes the following form:

**Operation**

i) Field cleaning ................. : Males/females 15-60 years

ii) Crop sowing
    - preparing seed holes ....... : Males/females 15-60 years
    - seed casting ............... : Children, females 15-60 years

iii) Weeding ..................... : Males/females 15-60 years

iv) Harvest
    - Cutting of grain heads/sesame bushes
    - Pulling of groundnut plants  
    Males/females 15-60 years

v) Collecting of grain heads, sesame bushes, groundnut plants  
    Males/females 15-60 years

vi) Threshing of grain heads, groundnut and collection of sesame seeds  
    Males/females 15-60 years

vii) Winnowing of grain crops, cleaning of sesame and groundnut  
    Females 15-60 years

Though the above division of labour is realized, children may participate in any of the operations as may be induced by the household labour shortage.
ii) Hired Labour:

Hiring labour for agricultural operations is practiced at most project sites. From Table 6, in 11 out of the 13 villages surveyed, some farmers making 25.45% of the sample covered, hired labour. Two categories of farmers normally resort to hiring labour, village merchants and the financially capable ones, who both run after a big production for profit making from raising cash crops, or for securing an adequate grain supply for a large family. The two categories normally contribute to their household labour.

Wage labour is employed from village residents, migrants from nearby villages, or distant migrants, who all fall within that poor segment of the rural population, not raising adequate production to meet their needs. It may be roughly estimated that about 15-25% of the households in any of the surveyed sites fall within this category, which applies too to migrants from nearby villages. As for distant migrants, they come from the drought-hit areas lying to the north of the project area, where movement is perpetuated by the poor conditions there.

The peak time of wage labour employment is during the weeding operation, which takes place from late July to end of August, all depending on the dates of occurrence of reliable rains and the establishment of crops, which may vary from one year to another, and for the different parts
of the project area. Two weeding are normally practiced, a first weeding which is referred to as "hash mur" and a second weeding called "jarkab".

The other operations for which labour is employed is field cleaning which provides some employment opportunities during May and June, and crop sowing which takes place from late June to mid-July. Two sowing are practiced, sowing before the rains or dry sowing locally known as "rameil" and wet sowing after the rains. Harvest involves little wage labour employment and is mostly a household activity, except for the winnowing of grain crops which may involve women wage labour, usually paid in crop kind.

It may be concluded that the traditional crop raising economy of the area provides a wage labour market for the local population during the period May to August, after which people look for jobs in other agrarian activities within the area or migrate for employment outside the area.

Labour prices are continually rising as revealed by the wage levels of the last 4 years. This may be explained by the rising rate of inflation in the countryside, and competition of employment in agricultural schemes and towns to which people migrate. The figures for 1985/86-1986/87 exhibit the following wage rise for the project area, computed from the 13 sites studied.
Table 7: Agriculture operation prices 1985/86-1986/87

<table>
<thead>
<tr>
<th>Year</th>
<th>Seloka</th>
<th>Dafan</th>
<th>Hash Mur</th>
<th>Jankat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986/87</td>
<td>5.00</td>
<td>2.50</td>
<td>40.00</td>
<td>20.00</td>
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<tr>
<td>1987/88</td>
<td>7.00</td>
<td>5.00</td>
<td>60.00</td>
<td>30.00</td>
</tr>
</tbody>
</table>

Remarks: Seloka: Worker for preparation of holes for seeds.
Dafan: Worker for casting of seeds.
Dahawa: A day’s wage from about 8 a.m to 12 noon.
Hash Mur: Is first weeding
Jankat: Is second weeding.

iii) The Nafir

The last type of labour source used by the farmer is the nafir. Table 6 indicated that the nafir was resorted to in 5 out of the 13 villages surveyed, and was practiced by 13.85% out of the farmers met. As explained, the nafir is a mutual arrangement between farmers, whereby they avail their labour for each other with the organizer serving a meal to the participants.

The return from the nafir in terms of labour input could be substantial as indicated by some cases studied, where farmers spent Ls.125 on the meal preparation to obtain back a weeded acreage of 5.5 makhmas. At 1986/87 prices for first weeding, the return to the farmer was Ls. 220.
However, the nafir as a system for raising labour could only be organized by a financially able farmer, who could invest cash on the meal to obtain the labour return. It is not organized by poor farmers, though occasionally villagers may contribute their labour individually or communally to a needy person on charitable basis. The nafir, the way it is described, is governed by profit considerations, hence with the scarcity and rise of prices of commodities required for meals preparation, it tended in recent years to decay as a traditional labour-raisimg institution in many of the rural areas of Western Sudan.

It is apparent from the above discussion that of the 3 sources of labour available to the farmer, household labour makes the major contribution to crop raising activities in the project area. Worked on the 40.79% of household members as directly engaged in farming operations, the total labour force occupied in crop farming in the project area may be portrayed as follows for the 4 rural councils, Table 8.
Of the above two features the last one is interesting, and is a logical corollary of the factors conditioning crop raising in the project area, being an activity shaped by the natural elements, with limited interference from the side of the farmer in terms of innovated farming inputs, improved field practices, or effective agricultural services. In absence of such basic farming requirements it is reasonable to see yield levels of unstable order for all crops, as indicated by the following site locational analysis, Table 10.

Despite this general observation, sites located at the central part of the project area seem to be more productive per unit area as compared to the northern and southern parts which may be explained by prevalence of better drained soils in the former. The lower yields in the northern area are compensated for by increased household acreage, while in the southern area lower yields may be a result (especially for 1986/87) of rainfall shortage and weed infestation.

From data gathered from the 13 sites low yields are attributed to:

- Irregularity of rains both in total amount and in distribution throughout the cropping season which affects dates of sowing as may induce many resowing, and the time of weeding, resulting in poor crop performance. Gaibat was a good example of low yields for 1986/87 cropping season as a direct result of low rainfall, though lying at the southern half of the project area.
<table>
<thead>
<tr>
<th>Crop</th>
<th>Average Yield (Kg)</th>
<th>Highest at</th>
<th>Location within Project Area</th>
<th>Lowest at</th>
<th>Location within Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bukhun</td>
<td>35.78</td>
<td>Kangoga (70.86)</td>
<td>Northern</td>
<td>Gaibat (8.61)</td>
<td>Southern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bangaacid (69.41)</td>
<td>Central</td>
<td>Umm ucheira (13.72)</td>
<td>Northern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Umm Remad (57.70)</td>
<td>Central</td>
<td>El Birka (16.27)</td>
<td>Southern</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>El Hammadiya (22.8)</td>
<td>Northern</td>
</tr>
<tr>
<td>Warq/Agai</td>
<td>68.48</td>
<td>Abderbein (163.4)</td>
<td>Central</td>
<td>Gaibat (1.72)</td>
<td>Southern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ban Gadid (106.52)</td>
<td>Central</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Umm Arada (95.00)</td>
<td>Central</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goshme</td>
<td>59.07</td>
<td>Abu Sinun (105.14)</td>
<td>Northern</td>
<td>Gaibat (27.14)</td>
<td>Southern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Umm Arada (95.00)</td>
<td>Central</td>
<td>El Birka (32.51)</td>
<td>Southern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Umm Remad (90.05)</td>
<td>Central</td>
<td>Abu Haraz (34.89)</td>
<td>Central</td>
</tr>
<tr>
<td>Groundnut</td>
<td>97.31</td>
<td>Abu Haraz (255.27)</td>
<td>Central</td>
<td>Gaibat (26.67)</td>
<td>Southern</td>
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<tr>
<td></td>
<td></td>
<td>Ban Gadid (142.20)</td>
<td>Central</td>
<td>Umm Remad (32.92)</td>
<td>Central</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Abderbein (140.25)</td>
<td>Central</td>
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</tr>
</tbody>
</table>
Wind hazards which causes loss of seeds by blowing out sow seeds or damaging seedlings.

Floodng of fields which is normally associated with "gardun" and "tein" soils, cultivated in the central and southern parts of the project area, where sheet or water flooding may wash out crops.

Soil exhaustion due to repeated farming of same plot for a number of years, attributed to increase in population and expansion of commercial crop farming.

Late weeding, as many poor farmers dividing their time between their fields and those of others, find themselves giving effort to their own fields late in the season, by which time weeds would have taken over their crops.

And most important of all factors is the effect of crop pests and diseases which are many affecting almost all crops at different stages of growth.

The following pests and diseases were reported for the different crops:

- **Pukhun**: Striga, rats, grass hopper, locust, birds, *Rhamagula sp.*, and *الكسار*.
- **Maring/Magara**: Striga, annut, stem borer, rats, birds, grass hopper, and locust.
- **Sesame**: Rats, *Elasmolobes oridius* (sesame seed bug), *الحَمِير*.
- **Groundnut**: Rats, *Elasmolobes oridius*, *Microtromes Leg涅as*.
- **Watermelon**: *Mozara viridula*.
- **Okra**: *Mylabrid sp.*, and *Abumulion alagur*.

* could not be identified, require field examination.
2.3.2.7. Contribution of Staple Grains and Cash Crops

Table (11) gives the contribution of staple grains and cash crops expressed out of total crop value. Values of crops were marked out on 1986/87 crop prices.

The table depicts the general farmer strategy in producing staple grains and cash crops to meet his sustenance needs, revealing the relationship between the two types of production. Out of the total crop value, staple grains make 31.61 per cent and cash crops make 68.39 per cent. While of the two staple grains, dukhun ranks highest, contributing 58.44 per cent of the value of the two crops, with marig/nagad adding 11.56 per cent. As for cash crops, sesame contributes 81.27 per cent and groundnuts 18.73 per cent of the value of the two crops. These results confirm previous findings reached from discussions on crop distribution and acreage.

From interviews made with many farmers, as how they decide on acreage allocation between different crops at any cultivation season, the following rationale was expressed:

1/ Crop Prices 1986/87:
- Dukhun (Qantar) Ls. 85.00 (Late season prices)
- Marig/nagad (Qantar) Ls. 50-65
- Sesame (Qantar) Ls. 60-72 (open season prices)
- Groundnut (Qantar) Ls. 40-52 (open season prices).

Prices at each site were taken as reported by the case interviewed.
Table II:

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<tr>
<th>Village</th>
<th>Total Crop Value</th>
<th>Staple Grain Value</th>
<th>Cash Crop Value</th>
<th>% Out of Total Value</th>
<th>Source</th>
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<td>Value</td>
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<td>% of staple grain value</td>
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<td>9. Al Gettat</td>
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<td>13. Al San Gando</td>
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<td><strong>Averages</strong></td>
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<td><strong>25.08</strong></td>
<td><strong>21.51</strong></td>
<td><strong>1.56</strong></td>
<td><strong>61.27</strong>, 18.73</td>
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<tr>
<td><strong>% Out of Total</strong></td>
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<td><strong>100.00</strong></td>
<td><strong>100.00</strong></td>
<td><strong>100.00</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

*Notes:
- &lt;1500 being value of okra.
- &lt;165 less value of yerkadah.
- &lt;565 being value of yerkadah.
- &lt;818 raised from tomatoes.
- &lt;200 raised from yerkadah.

Source: Annex I, columns 24 to 54, and 72, 73.*
- Production of adequate grain supply to meet the family needs between the two harvests, so as not to be forced to purchase from the market, and allocation of the balance sorghum that a household can cultivate to cash crops to raise adequate cash to enable the household to spend on dura in case the crop fails and to meet the other household needs.

Table 12, giving the frequency of sufficiency, deficiency and stored surplus of dura for 1986/87 by project site, indicates clearly that the farmers' target of producing adequate grains from his farm is far fetched, since the data reveals a recorded sufficiency of 12.31% per cent against a deficiency of 87.69 per cent and a stored surplus of 23.08 per cent, out of the 130 samples studied. Hence, the majority of households in the project area have to use their earnings from cash crops to purchase the additional amounts of dura needed by the household. As most households do not raise enough cash earnings from crop production; a large part of the population seeks other income-raising sources to make-up for the deficit.
Table 12: Household pure production: frequency of sufficiency, deficiency and stored surplus expressed as percentage of sample surveyed, 1985/86

<table>
<thead>
<tr>
<th>Village</th>
<th>% of recorded sufficiency</th>
<th>% of recorded deficiency</th>
<th>% of recorded stored surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Umm Usbeira</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1.2. Pangoga</td>
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<td>50.00</td>
<td>0.00</td>
</tr>
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<td>2.1. Abu Simun</td>
<td>30.00</td>
<td>70.00</td>
<td>40.00</td>
</tr>
<tr>
<td>2.2. Umm Arada</td>
<td>10.00</td>
<td>90.00</td>
<td>10.00</td>
</tr>
<tr>
<td>2.3. Umm Ramad</td>
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<td>100.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2.4. Abderbein</td>
<td>0.00</td>
<td>100.00</td>
<td>20.00</td>
</tr>
<tr>
<td>2.5. Abu Haraz</td>
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<td>100.00</td>
<td>20.00</td>
</tr>
<tr>
<td>3.1. Rasgeil</td>
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<td>70.00</td>
<td>50.00</td>
</tr>
<tr>
<td>3.2. Gaiat</td>
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<td>100.00</td>
<td>40.00</td>
</tr>
<tr>
<td>3.3. El Birka at-Janjara</td>
<td>0.00</td>
<td>100.00</td>
<td>40.00</td>
</tr>
<tr>
<td>4.1. El Hammadiya</td>
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<td>40.00</td>
</tr>
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<td>30.00</td>
<td>70.00</td>
<td>40.00</td>
</tr>
<tr>
<td>4.3. Ban Gadeid</td>
<td>10.00</td>
<td>90.00</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Averages: 12.31  87.69  23.08

Source: Annex I, Columns 80 to 84.
2.4. Livestock Raising:
   2.4.1. Types:

Table 13 reflects livestock ownership frequency 1984/85-1986/87 for the 13 sites studied, and the project area. From the figures for the two years, donkeys rank highest, followed by goats and cattle, with sheep and camels as the least owned animals. This order is explained by the fact that:

- Donkeys are the means used by farmers for movement, hence owned by almost all households.
- Goats offer many favourable conditions to be owned. They are tough animals requiring little care. Their value in terms of money is within the ability of the household. They breed fast and are a source of milk and cash. They are less vulnerable to diseases.
- Cattle was prior to the drought of 1984/85 raised in large numbers in most of the villages of the project area, in response to savings from crop raising and other cash surplus.
- Sheep are not a sedentary farmer’s animal because of their special grazing requirements, reflecting a very individualized ownership.
- While camels are only occasionally owned, being high value animals that require special care.
Table 13: Livestock raising: ownership frequency 1984/85-1986/67 by type of animal expressed as percentages out of sample surveyed by village.

<table>
<thead>
<tr>
<th>Village</th>
<th>Goats</th>
<th>Sheep</th>
<th>Cattle</th>
<th>Donkeys</th>
<th>Camel</th>
</tr>
</thead>
<tbody>
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<td>1.1. Um Ysheira</td>
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<td>10</td>
<td>10</td>
<td>90</td>
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<td>30</td>
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<td>80</td>
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<td>10</td>
<td>90</td>
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<td>10</td>
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<td>30</td>
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<td>90</td>
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<td>10</td>
<td>60</td>
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<td>30</td>
<td>20</td>
<td>20</td>
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<td>50</td>
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<td>20</td>
<td>80</td>
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<td>80</td>
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<td>50</td>
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<td>30</td>
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<td>20</td>
<td>50</td>
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</table>

Averages: 78.46 64.62 23.08 13.85 44.62 16.92 80.00 65.38 17.69 7.69

Source: Annex I, columns 40 to 52.
2.4.2. Ownership

Table 14 gives livestock ownership prior and after 1984/85 drought. The previously portrayed picture of frequency of ownership by type of animal is maintained. The data show the following changes in sizes owned and the percentage of losses which occurred between 1984/85 and 1986/87:

i) Goats:
Average household ownership 1984/85, 13.56 head, reduced to 4.52, with a reported loss of 61.62 per cent.

ii) Sheep:
Average household ownership 1984/85, 13.01 head, reduced to 0.98, with a reported loss of 90.44 per cent.

iii) Cattle:
Average household ownership 1984/85, 10.78 head, reduced to 0.72, with a reported loss of 91.89 per cent.

iv) Donkeys:
Average household ownership 1984/85, of 2.06 head, reduced to 0.96, with a reported loss of 53.00 per cent.

v) Camels:
Average household ownership 1984/85, of 0.49 head, reduced to 0.12, with a reported loss of 53.03 per cent.

1/ Losses: include reduction in numbers as a result of mortality and selling of animals during the drought time.
### Table 14: Livestock raising: Household livestock ownership prior and after 1984/85 present, and percentage of loss.

<table>
<thead>
<tr>
<th>Village</th>
<th>Number owned 1984/85</th>
<th>Number owned 1986/87</th>
<th>% of loss</th>
<th>Number owned 1984/85</th>
<th>Number owned 1986/87</th>
<th>% of loss</th>
<th>Number owned 1984/85</th>
<th>Number owned 1986/87</th>
<th>% of loss</th>
<th>Number owned 1984/85</th>
<th>Number owned 1986/87</th>
<th>% of loss</th>
<th>Number owned 1984/85</th>
<th>Number owned 1986/87</th>
<th>% of loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I. Qum Yeha'i</td>
<td>24.40</td>
<td>5.30</td>
<td>63.19</td>
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<td>0.30</td>
<td>9.9</td>
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<td>98.99</td>
<td>1.50</td>
<td>1.00</td>
<td>99.00</td>
<td>1.20</td>
<td>0.20</td>
<td>99.00</td>
<td>4.00</td>
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<td>95.00</td>
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<td>90.65</td>
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<td>1.50</td>
<td>90.65</td>
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<td>93.06</td>
<td>1.00</td>
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</tr>
<tr>
<td>3.3. El Birka Abjan</td>
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</tr>
</tbody>
</table>

**Averages:**

|                      | 17.56               | 4.52                | 62.62     | 33.01                | 0.58                | 98.44     | 10.78                | 91.89                | 7.06      | 0.96                 | 53.00                | 4.49      | 0.12                 | 55.03                | 4.12      |

**Source:** Annex 1, columns 40 to 57.
Of all animals the ones most hardly hit were cattle and sheep due to their very special grazing and watering requirements, which could not be met during the poor grazing conditions of 1984/85.

2.4.3. Income from Livestock

Table 15 gives the income generated from livestock selling for 1986/87. Prior to the drought of 1984/85 and the reduction in number of animals, livestock was the second contributor to the income of the household after crop raising. The two economies were highly fused into each other i.e. surpluses from crop earnings were tied back in livestock, which is reorted to through sales at times of need. This relationship has been shaken during the years following the drought, with a reduced role for livestock which may be depicted from the figures in Table 15.

In terms of frequency of selling animals, only 33.08% of all households surveyed generated income from livestock selling. Of the total income generated from livestock, 51.40% was contributed by goats, 34.16% by sheep and 14.44% by cattle, with no sales among donkeys and camels. As shall be revealed later on discussing household income, livestock is no longer a major contributor to this income.
<table>
<thead>
<tr>
<th>Village</th>
<th>Income generated (L.E.)</th>
<th>Average income (L.E.)</th>
<th>% of total</th>
<th>Goat income (L.E.)</th>
<th>% of total</th>
<th>Sheep income (L.E.)</th>
<th>% of total</th>
<th>Cattle income (L.E.)</th>
<th>% of total</th>
<th>Donkeys income (L.E.)</th>
<th>% of total</th>
<th>Camels income (L.E.)</th>
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</table>

Source: Annex I, columns 35 to 60.
2.5. Off-Farming Activities

These shall be discussed under forestry products, employment inside the area, and employment outside the area.

2.5.1. Forestry Products

2.5.1.1. Hashab Gum

Except for one case, of all 130 cases interviewed, no gum production nor income generation from gum were reported for 1986/87 in the project area, which was traditionally gum producing, especially the northern and central parts of it. In all 13 villages surveyed it was reported that the last sizeable marketable amounts of gum taken from these villages were in the early 1980's prior to the drought. In some villages this incidence was even referred back to the mid 1970's. Villagers refer the reason behind the decline of hashab gum production to some causes of which they know and to others which they can not explain. Reasons given for diminishing production include:

- The expansion of cultivated land on the expense of hashab plantations as a result of population increase adding to household requirement of cultivable land, and also due to commercial crop raising.

- The invasion of camel nomads coming from the north to El Obeid District during the last 10 years and the destruction caused by camels and herders to the
hashab trees, especially during early rainy season, when the trees provide lush browsing material for the animals.

- The death of trees in the aftermath of the drought being completely lost to the farmer.

- Some "physiological" changes in trees which cause them not to produce, reported to take place in the last two years and can not be explained by farmers.

In conclusion, hashab gum is not presently produced in the project area in amounts that contribute to household income, though petty amounts may be collected by some households.

2.5.1.2. Charcoal, Fuelwood and Building Material

Table 16 furnishes information on the frequency of the practicing the three main forms of off-farming activities in the project area. Selling of fuelwood, charcoal and building material has a 16.92% frequency in the sample surveyed, being highest at Abu Siman, Ben Gadeid, Jebel Kordofan, with some presence at Umm Usheira, Abderbein, Umm Arada, Abu Haraz and Gaibat.

Charcoal is of limited use, only by the well to do households including merchants and government officials at central places like Abu Haraz, Ben Gadeid and Kazgeil, who normally purchase their needs from the local market.
Table 16: Income generation from off-farming activities; frequency expressed as percentage of households practicing the activity cut out of sample surveyed

<table>
<thead>
<tr>
<th>Village</th>
<th>Selling of fuel wood, charcoal and building material</th>
<th>Employment within area: % Practicing</th>
<th>% Practicing Employment outside area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Overall percentage</td>
<td>Agriculture wage labour</td>
</tr>
<tr>
<td>1.1. Umm Gebeira</td>
<td>20</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>1.2. Fangeusa</td>
<td>00</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>2.1. Abu Sirun</td>
<td>60</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>2.2. Um Arada</td>
<td>10</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>2.3. Um Ramad</td>
<td>00</td>
<td>70</td>
<td>50</td>
</tr>
<tr>
<td>2.4. Abderbein</td>
<td>20</td>
<td>70</td>
<td>40</td>
</tr>
<tr>
<td>2.5. Abu Baraz</td>
<td>10</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>3.1. Kazgeil</td>
<td>00</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>3.2. Saibat</td>
<td>10</td>
<td>100</td>
<td>30</td>
</tr>
<tr>
<td>3.3. El Nirka</td>
<td>20</td>
<td>90</td>
<td>60</td>
</tr>
<tr>
<td>Ab-Janjara</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1. El Harmadiya</td>
<td>00</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>4.2. Jebel Kordofan</td>
<td>30</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>4.3. Enn Sadid</td>
<td>40</td>
<td>70</td>
<td>20</td>
</tr>
</tbody>
</table>

Averages: 16.92  76.92  36.92  35.38  8.46  10

Source: Annex I, columns 61 to 71.
All households in the 13 villages studied fetch their fuel wood needs from the area around the village, and do not spend cash on energy supply. The same applies to building material, whereby all villagers fetch their requirement of wood poles, supports, liners and fastening material, from the nearby woods which they assemble with the dukhun stalks collected from their fields for house construction purposes. These same products may find a limited market at the central places mentioned.

El Obeid market is the main centre for the marketing of fuel wood and building material products. Previously it used to obtain its supply from villages in its vicinity, carried to it by donkeys and camels. With the depletion of the resources there, far places are being fetched including the project sites. Movement of material from these places has been facilitated in recent years by the availability of lorry transport.

Of the sites mentioned, Abu Sirun, Jebel Kordofan and Ban Gadeid, added to them Abu Haraz, are presently among the major suppliers of fuel wood. This is because of the abundance of a woody vegetation cover in their surroundings, embracing the Jebel flood plain (Abu Sirun) wadis and depressions (Jebel Kordofan and Ban Gadeid) and extensive unutilized gardud plains (Abu Haraz).
At the first three places, fuel wood is individually produced and marketed, either to local merchants who collect it in substantial amounts and transport it to El Obeid, or by the producers transporting by themselves to El Obeid. At Abu Haraz production of both charcoal and fuel wood is organized by big merchants, residing at the place of coming from El Obeid, on contractual basis with villagers who deliver the product to them. Of these 4 sites, Abu Haraz is open to a severe depletion of its forestry cover, with no afforestation activity going on despite the collection of royalties by the Region's government.

Selling of fuel wood, charcoal and building material as a household income generating activity normally starts in November after the harvest and spans the period up to June. The income generated per annum from the activity is on the order of Ls. 400.

The forester at Abu Haraz indicated that commercial wood production started at this site in 1960, engulfing the southern and western parts of Abu Haraz area up to the boundary with Em Nahud and Dilling Destitites. Under the cover of collecting dead wood presently green trees are cut too. The main tree species collected are "kitir" Acacia mellifera, "Subbagh" Terminalia sp., "Ard" Albizia amara and "Hogli" Balanites aegyptiaca.

There are at present 20 lorries, El Obeid based, and 10 lorries, Abu Haraz based, run by merchants in the production business, operating from the site.

Merchants provide the worker with free water, guarantee him at a shop to obtain his consumers needs on credit, on condition that he delivers the product to them. Charcoal is delivered at Ls.2.5 to Ls.4.00 per sack, while fuel wood is delivered at 50 piastres per bundle, or at the price of a lorry load of Ls.80. Merchants sell at El Obeid at prices of Ls.10, Ls.2 and Ls.3.50 for a sack of charcoal, a bundle of wood or a lorry load respectively.

The Dept. of Forestry collects royalties on the products.
- Staple grains 13.18%
- Cash crops 29.01
- Livestock 7.19
- Fuel wood, charcoal, and building material 4.08
- Employment inside the area 39.40
- Employment outside the area 7.22

It is apparent from the above weighted values of the various sources of income, that the return from cash crops (29.01), and employment inside the area (39.40), are the major contributors to household economy. If the values raised from fuel wood, charcoal, and building material and employment outside the area are added to the latter percentage (39.40), it comes out clearly that off-farming activities add 50% to the household income.

This fact points out to an unhealthy economic situation, signifying a decline in the traditional economic bases, crop farming and livestock raising, of the project area. Presently a sizeable portion of off-farming income is centered on crop production and the community activities found on it, hence improvements in production levels and community living conditions shall positively add to the values generated from off-farming activities.
### Table 17:

<table>
<thead>
<tr>
<th>Village</th>
<th>Average Household Income</th>
<th>Single Income</th>
<th>Cash Crop</th>
<th>Livestock</th>
<th>Rural Work-Material</th>
<th>Employment Inside Area</th>
<th>Employment Outside Area</th>
<th>% of Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holon</td>
<td>2512.00</td>
<td>183.95</td>
<td>6.87</td>
<td>431.48</td>
<td>16.37</td>
<td>1594.50</td>
<td>6.32</td>
<td>100.00</td>
</tr>
<tr>
<td>1.2. Friegeyes</td>
<td>3607.70</td>
<td>650.00</td>
<td>10.38</td>
<td>659.30</td>
<td>23.88</td>
<td>267.00</td>
<td>7.06</td>
<td>0.00</td>
</tr>
<tr>
<td>2.1. Abu Siman</td>
<td>3490.37</td>
<td>291.00</td>
<td>11.20</td>
<td>1772.97</td>
<td>50.77</td>
<td>47.70</td>
<td>1.37</td>
<td>344.70</td>
</tr>
<tr>
<td>2.2. Um Alala</td>
<td>3738.32</td>
<td>372.50</td>
<td>21.13</td>
<td>291.50</td>
<td>22.32</td>
<td>17.90</td>
<td>1.61</td>
<td>50.00</td>
</tr>
<tr>
<td>2.3. Um Ramad</td>
<td>1954.20</td>
<td>346.60</td>
<td>17.40</td>
<td>1053.10</td>
<td>52.86</td>
<td>80.80</td>
<td>4.12</td>
<td>0.00</td>
</tr>
<tr>
<td>2.4. Abderboin</td>
<td>1589.11</td>
<td>217.10</td>
<td>13.66</td>
<td>663.63</td>
<td>39.13</td>
<td>197.00</td>
<td>12.40</td>
<td>95.00</td>
</tr>
<tr>
<td>2.5. Abu Haraz</td>
<td>3775.32</td>
<td>284.40</td>
<td>9.22</td>
<td>681.50</td>
<td>24.69</td>
<td>265.40</td>
<td>9.66</td>
<td>75.00</td>
</tr>
<tr>
<td>3.1. Masgul</td>
<td>2713.27</td>
<td>177.75</td>
<td>6.55</td>
<td>547.92</td>
<td>20.19</td>
<td>213.00</td>
<td>7.55</td>
<td>0.00</td>
</tr>
<tr>
<td>3.2. Gaidar</td>
<td>2778.79</td>
<td>35.85</td>
<td>2.07</td>
<td>284.94</td>
<td>16.10</td>
<td>187.00</td>
<td>10.21</td>
<td>120.00</td>
</tr>
<tr>
<td>3.3. El Bidaa El Tanjara</td>
<td>3572.08</td>
<td>121.76</td>
<td>7.79</td>
<td>473.33</td>
<td>20.28</td>
<td>0.00</td>
<td>0.00</td>
<td>55.00</td>
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<tr>
<td>4.1. El Hammadiya</td>
<td>1795.00</td>
<td>229.50</td>
<td>13.08</td>
<td>872.50</td>
<td>49.72</td>
<td>222.00</td>
<td>12.21</td>
<td>0.00</td>
</tr>
<tr>
<td>4.2. Jedid Yediden</td>
<td>1878.60</td>
<td>401.65</td>
<td>24.28</td>
<td>341.55</td>
<td>16.48</td>
<td>310.20</td>
<td>16.31</td>
<td>150.00</td>
</tr>
<tr>
<td>4.3. Nen Gedieh</td>
<td>2253.74</td>
<td>439.36</td>
<td>19.44</td>
<td>521.46</td>
<td>24.04</td>
<td>105.30</td>
<td>4.85</td>
<td>200.00</td>
</tr>
<tr>
<td><strong>Averages</strong></td>
<td><strong>2380.07</strong></td>
<td><strong>11.50</strong></td>
<td><strong>7.75</strong></td>
<td><strong>5.09</strong></td>
<td><strong>55.95</strong></td>
<td><strong>10.43</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Less value of okra.

Source: Annex I, columns 72 to 79.
2.9. **Dura Supply Status and Per Capita Cash Income**

It is thought essential to highlight the dura supply status in the project area, since the availability of this basic commodity is an important measure of the food security in the area and the general prosperity of the population.

Of the food items consumed in the area dura porridge, with a preference for dukhum, makes the main dietary item of the population. Normally only two meals are taken a day, one at the morning time and the other at the late evening.

The added items to the dura porridge are mainly prepared from cooking oil, okra, lubia and other vegetables, with or without dried meat. Fresh meat is only occasionally eaten, more so during the harvest time. Milk from goats is used too, but with the decline in number of livestock, milk consumption decreased in the area.

Hence of all dietary items, dura is the major one consumed. Poor families frequently end up eating the porridge with a sauce prepared from oil, onion and water to which some salt is added.

The survey results reveal that per capita consumption of dura is in the range of 1.25 sacks per annum. On this figure household consumption was worked out. Table 18, focusing on the dura supply status in the project area, reveals clearly that household production (58.46%) is far
<table>
<thead>
<tr>
<th>Village</th>
<th>Household Size</th>
<th>Production (tonnes)</th>
<th>Amount Consumed</th>
<th>Amount Produced to Amount Consumed</th>
<th>Value of Expenditure (Ths)</th>
<th>Household Cash Income (Ths)</th>
<th>Expenditure on Durra (Ths)</th>
<th>Balance to Market (Ths)</th>
<th>Value of Balance (Ths)</th>
<th>Cash Balance Available to Household (Ths)</th>
<th>Per Capita Cash Income (Value of Durra)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Um Ncheira</td>
<td>9.9</td>
<td>12.33</td>
<td>1.88</td>
<td>25.49</td>
<td>0.00</td>
<td>0.00</td>
<td>10.50</td>
<td>31.81</td>
<td>24.62</td>
<td>298.50</td>
<td>330.00</td>
</tr>
<tr>
<td>1.2. Wangoga</td>
<td>7.5</td>
<td>9.38</td>
<td>6.00</td>
<td>85.25</td>
<td>0.00</td>
<td>1.36</td>
<td>21.71</td>
<td>206.05</td>
<td>69.00</td>
<td>1.52</td>
<td>2837.05</td>
</tr>
<tr>
<td>2.1. Abu Simun</td>
<td>8.0</td>
<td>10.00</td>
<td>4.40</td>
<td>24.00</td>
<td>3.00</td>
<td>30.00</td>
<td>2.60</td>
<td>25.00</td>
<td>302.37</td>
<td>330.00</td>
<td>1.19</td>
</tr>
<tr>
<td>2.2. Um Mabdaa</td>
<td>9.9</td>
<td>12.33</td>
<td>4.80</td>
<td>38.77</td>
<td>1.00</td>
<td>8.06</td>
<td>60.35</td>
<td>256.72</td>
<td>329.00</td>
<td>22.12</td>
<td>218.37</td>
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<td>10.00</td>
<td>4.40</td>
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<td>6.00</td>
<td>0.00</td>
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<td>154.79</td>
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<td>2.4. Abderhein</td>
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<td>8.50</td>
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<td>6.81</td>
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<td>340.70</td>
<td>31.74</td>
<td>1256.17</td>
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<td>2.5. Abu Haras</td>
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<td>3.08</td>
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<td>6.02</td>
<td>69.92</td>
<td>2429.10</td>
<td>405.75</td>
<td>16.87</td>
<td>2019.35</td>
</tr>
<tr>
<td>3.1. Kangar</td>
<td>9.6</td>
<td>12.60</td>
<td>2.20</td>
<td>22.23</td>
<td>4.20</td>
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<td>46.67</td>
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<td>321.21</td>
<td>12.66</td>
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<tr>
<td>3.2. Gubat</td>
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<td>10.50</td>
<td>6.42</td>
<td>4.00</td>
<td>5.42</td>
<td>32.58</td>
<td>6.68</td>
<td>63.82</td>
<td>1562.90</td>
<td>330.75</td>
<td>39.62</td>
</tr>
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<td>3.3. Al Birika Abajane</td>
<td>9.6</td>
<td>11.25</td>
<td>1.55</td>
<td>13.78</td>
<td>2.10</td>
<td>18.67</td>
<td>7.50</td>
<td>67.50</td>
<td>1420.53</td>
<td>360.00</td>
<td>26.20</td>
</tr>
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<td>4.1. Al Humadiya</td>
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<td>9.75</td>
<td>2.70</td>
<td>27.69</td>
<td>2.40</td>
<td>24.62</td>
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<td>47.69</td>
<td>1364.50</td>
<td>236.50</td>
<td>15.66</td>
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<td>4.2. Albel Alkofona</td>
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<td>7.50</td>
<td>7.02</td>
<td>93.50</td>
<td>3.20</td>
<td>6.10</td>
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<td>1321.29</td>
<td>6.00</td>
<td>6.00</td>
</tr>
<tr>
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<td>5.70</td>
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<td>0.56</td>
<td>9.23</td>
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<td>32.82</td>
<td>1414.71</td>
<td>157.50</td>
<td>11.30</td>
</tr>
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<td>8.54</td>
<td>10.55</td>
<td>3.73</td>
<td>21.60</td>
<td>1.80</td>
<td>10.50</td>
<td>5.43</td>
<td>2002.98</td>
<td>366.94</td>
<td>1726.11</td>
<td>204.10</td>
</tr>
</tbody>
</table>

Source: Annex I, Columns 30 to 37.
below the amount annually needed by the household. The situation is aggravated too by the low surplus stored from the previous harvest (13.27%) which does not make up for the deficit (51.47%) between the amount needed and the amount produced, which has to be purchased from the market.

The above percentages being the mean for all 13 sites surveyed, production levels are even lower at some places which have to depend more on purchased dura e.g. Umm Usheir, Abderbein, Abu Haraz, El Birka etc. Expenditure on dura ranges from 2.32% to 26.20% of the cash income (Ls. 2,008) of the household, with an overall average of 18.28%. This leaves the household with a balance of Ls.1,780 making a per capita cash income of Ls. 211, for expenditure on all other household needs, which is considerably low taking into account the current inflation rates.

2.10. Conclusion

2.10.1. Potential and Constraints

The above treatment of the economy of the project area is meant to reveal the potential and constraints of the production systems practiced at the 13 project sites. The following conclusions may be drawn from the above disposition:
- That the economy is founded on crop farming, livestock raising, selling of fuel wood and building material, and employment in off-farming activities inside and outside the area.

- Of the 4 pursuits, crop raising and off-farming activities are the major contributors to household economy.

- Crop raising is at its initial stages of development, being conditioned by the natural elements, and lacks the basic ingredients of improvement.

- The main crops produced are dukhun and marig/nagad as staple grains and sesame groundnuts as cash crops.

- The farmers' strategy is to produce the two types of crops to secure household grain supply and raise cash for other needs.

- Farmers' strategy is not fulfilled due to fluctuation in production and low yields.

- Low yields result from adverse natural conditions, poverty of the farmer inducing him to sell part of his labour, and crop pests and diseases.

- The farmer ends up not producing enough grains and purchases the balance needed by the household from the market, from earnings from cash crops and employment in off-farming activities.
- Livestock is traditionally integrated in the economy of the household.
- All animals are raised, with goats and donkeys as the most prevalent ones.
- Livestock role in household economy has been reduced by the recent drought.
- Hashab gum as an important production activity has declined as a result of natural and misuse factors.
- Fuel wood and building material for household needs are available within village reach and are obtained freely.
- At some of the places, in access to El Obeid Town, or with central place functions, fuel wood and building material are fetched for sale.
- Increased production of fuel wood without wise use of the resource is affecting the forestry cover at some places.
- Fuel wood production is a ready source of income in years of bad harvest, especially at places close to El Obeid, hence continuously endangered.
- Employment inside the area embraces agricultural wage labour, others businesses and government services.
- The economic returns from these activities integrate well with crop raising and give the economy its continuity.
- Improvements in the basic economies of crop farming, livestock raising and forestry products including hashab gum and the general standard of community life shall prosper off-farming activities.
- Employment outside the area is practiced during the off-farming period, with incomes generated complementing the locally raised incomes.
- Generally the income level is very low.

2.11. Prospects for Improvement

The above summary of findings on the performance of the economy of the area reveals that, the potential for improvement is closely tied to handling the constraints presently faced by the production systems of the area. The objective is to increase the production of both food and cash crops, expand and diversify local employment opportunities and improve the welfare of the local communities.

There are prospects of seeing these objectives attained through bringing improvements on the economy. Founded on the current development ideas explored for the area, improvements may embrace the following fields:-
(i) Crop raising
- expansion of acreage cultivated, possibly through application of animal traction, especially in the southern and central parts of the project area,
- application of water conservation techniques through development of water harvesting and water spreading project,
- development of Juba, the housewife farm,
- improvement of field practices and application of better inputs, especially seeds,
- provision of agricultural services, more particularly pest control, credit and extension, and
- improvement of storage facilities.

(ii) Livestock raising
- improvement of range and pasture through conservation and development measures,
- development of water sources, and
- restocking of village herds, especially goats.

(iii) Forest activities
- restocking of hashab and integration of plantations in the cropping cycle,
- conservation of forested areas and rationalization of their use,
- afforestation of village lands and stabilization of dunes.

(iv) Off-farming activities
- development of handicraft and poultry industries
to improve the income of women.

(v) Community welfare
- improvement of the infrastructure of community services, and
- encouragement of local communities to participate in the realization of the above projects through organization and resources involvement.

Nearly all of the above recommendations are embraced in the UNDP report "Towards Sustained Rural Development in the Sudan", in which a package of development activities is recommended for 3 out of the 4 rural councils studied.

UNDP in co-operation with ILO requested the survey team conducting the present study, to reflect the identified package for the 3 rural councils of Kazgail, Khor Taqqat and Abu Haraz on the communities surveyed. This was done by throwing the components of the package at the end of the group meetings to the participants, asking them to weight the proposals according to community priorities. The final picture of

ordering, as gathered from the 13 sites is as follows:

Table 12: Prioritization of Proposed UNDP Programme inputs as perceived by communities of the 13 sites

<table>
<thead>
<tr>
<th>Programme Component</th>
<th>Points Gathered</th>
<th>per cent of a 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Pest Control</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>ii) Animal traction</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>iii) Agricultural credit</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>iv) Haschab rehabilitation and afforestation activities</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>v) Water spreading projects</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>vi) Poultry development</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>vii) Range conservation and pasture development</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>viii) Development of handicrafts</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>ix) Improvement of storage facilities</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>x) Cattle improvement using artificial insemination</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

The above scheme of priorities provides essential guidelines for programming improvements on the production systems and the economy of the project area. On the same lines the scale of priorities for each surveyed site shall be furnished in Part II when presenting the site cases.

Weighting the proposals was worked on system of 10 points for the first priority, scaled down by 1 point for each next priority. At some sites communities overlooked some of the proposed components, hence the total does not add to 130.
CHAPTER III

ADMINISTRATION AND SERVICES INFRASTRUCTURE SET-UP
CHAPTER III

ADMINISTRATION AND SERVICES INFRASTRUCTURE SET-UP

3.1. Introduction:

In this chapter the administrative and services infra-
structure set-up of the project area shall be discussed at
three levels, the district, the rural council and project
site. The purpose of the discussion is to reveal the mechan-
ism of working of the government system in the area, and how
the services at community level are provided for and managed.

Since much community self initiative has been encouraged
in recent years to take a strong role in the provision and
running of services, or being forced into the situation by
lack of regional funds, some room shall be devoted to community
efforts in this direction, and the institutional developments
that accompanied these efforts. Tackling these aspects shall
furnish the essential framework for viewing project site
administrative and services infrastructural set-up in the
context of the rural council and the district.

3.2. Administrative Set-up

3.2.1. 1971-1980 Acts

According to 1971 Local Government Act and 1980
Regionalism Act, El Obeid as a district has a corporate

\[1/\text{ Though officially liquidated, till a substitute is enacted,}
\text{ they are still adhered to in running local government}
\text{ machinery.} \]
status with administrative and financial autonomy. Through according such status the two acts aimed at giving self-dependency to districts, at least in the long run.

The 1971 Act almost assigned all responsibilities of development initiation and implementation at the local level to the district, in a deliberate effort to enable it to build its own resources and work towards achieving the targeted autonomy. Rural councils were created as the next tier in the local administration hierarchy to involve grass-root resources in the development process, through realization of two objectives, participation in decision-making and mobilization of material and moral support for local development programmes initiation and implementation.

The philosophy of self-reliance went down even a step further by creating village councils, whereby every sizeable village settlement had its own council, while smaller ones were clustered under one council, Table 20.

Table 20: Village Councils of El Obeid District prior to liquidation of 1971 Act

<table>
<thead>
<tr>
<th>Council</th>
<th>Population</th>
<th>No. of Village Councils</th>
<th>Population of Village Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Umm Usheira</td>
<td>15,434</td>
<td>19</td>
<td>865</td>
</tr>
<tr>
<td>Abu Haraz</td>
<td>30,303</td>
<td>27</td>
<td>1,122</td>
</tr>
<tr>
<td>Kazgeil</td>
<td>24,985</td>
<td>25</td>
<td>999</td>
</tr>
<tr>
<td>Khor Taqqat</td>
<td>24,502</td>
<td>17</td>
<td>1,441</td>
</tr>
<tr>
<td><strong>Total/Average</strong></td>
<td>96,224</td>
<td><strong>88</strong></td>
<td>1,107</td>
</tr>
</tbody>
</table>

*Source: El Obeid District Office Files.*
With village councils, other organs including village development committees, co-operative committees, parents-teachers councils, socialist union units, youth union units, women union units and water-sources management committees were established at village level. All of these grass-root organizations had forums which ascended from the rural council to the district and the region, to the national level, with political representation at the bureau of the Socialist Union, and the People's Council (National Parliament).

On the other hand, the native administration system which was functioning since the 1920's, and founded on the tribes' autonomy, on the hierarchy of Nazir (paramount chief) and the village Sheikh was abolished as early as 1969. The only exception was the village Sheikh office, whose role was reduced to assistance in livestock tax collection and to an aid in administrative affairs when needed. The previous security, judicial and tax collection functions rendered by this system which were linked to the local government set-up at the district level were respectively substituted by police power, local magistrate councils, and the local government administration machinery.

3.3. Performance Under the New Set-up

The way the systems created under the two Acts look, reflects a heatedly engendered structure, engulfing the rural
population in an area from the grass-root to the region level. However, being comprehensive does not imply that it succeeded all the way in achieving its objectives. In assessing the performance of the system between 1971 and 1981, we may point out the following successes and failures.

3.3.1. The District Level

The district managed to maintain the corporate status it was intended to assume, by standing as an autonomous administrative unit. The mechanisms for attaining this status were area representation through elected and appointed councillors who form the district council, a core of administrative, technical and aid staff, specialized administrative, financial, technical and services committees, and a "semi"-independent annual budget.

In terms of achieving its assigned responsibilities as they came in the two Acts, the district performance was limited to the operation of the existing services, and some development of new infra-structural facilities, while it failed completely in executing developmental programmes at the local level. The reasons are apparently related to:

- Lack of adequate funds at the district level, since revenue sources are short of financing development activities.
dependency of the district on the region's financial sources, a large part of which are grants-in-aid from the centre, tightly allocated to priority expenditure.

- The meagre technical staff available to the district, barely adequate to run the existing services.

- The concentration of development efforts in terms of initiation, programming, implementation and budgeting in the hands of the technical departments of the region.

Hence the corporate status of the district becomes diminished on budgetary and technical considerations, with dependency on the Region's resources superseding in these areas, and for this reason we labelled the district budget as "semi"-independent.

3.3.2. The Rural Council Level

Of all the targeted dimensions of development, the 1971 Local Government Act succeeded in "sending out" at the rural council level, a local government officer with aid staff. At some places for example Abu Haraz and Kazgeil, the officers with funds raised from the councils' area and support from the district managed to build the premises of the rural council. In the other two, Umm Usheira and Khor Taqqat, the officers are still running the affairs of the two rural councils from the district headquarters.
Regarding the other dimensions of development e.g. agriculture, forestry, livestock, water supply, etc., the Act failed to integrate the essential technical and budgetary requisites in the new structure, to enable the initiation of development at the rural council level. Though it succeeded in giving each council a body of councillors and a small budget, same as in the case of the district, it was ineffective in the area of programme development. This shortcoming is attributed to the same drawbacks cited previously for the district.

The dependency of the rural council on the district is more strong compared to the latter's relationship with the Region. In the latter case, though the district proposed budget is approved by the Region, in reality it becomes its own independent budget, whereas in the case of the rural council only operational budgets are approved by the district for running the activities of the council.

Since the rural council has no financial autonomy and the district is in full control of funds including the taxes collected locally by the rural council which are handed over to the district treasury, rural councils have a limited scope for initiation. This came clearly in discussions with ex-councillors at the sites visited, who confirmed that rural councils forums were not short of ideas in the area of development, however they did not have the technical staff, equipment or budgetary means nor the experience of acting on such ideas.
3.3.3. The Village Level

Under the old system of native administration the village affairs were managed by the village Sheikh(s) and the elders, which is still so in all villages. It is true that at some places, especially those with central place functions and diverse population groups, a generation of elites emerged, frustrated with the patriarchal practices of the old system. This gave excuse to the ex-regime to abolish native administration.

Village councils and village committees were enacted in place of the native administration bodies to run the village affairs. With these, the rural areas were swarmed with all types of institutions listed previously. The experience of the last 13 years (1971-1984) had shown that most of these institutions were superficial and ineffective in bringing real change in village life, since many of them were not functioning, while others failed to gather villagers' support, being looked at as alien organizations.

Of these organizations, the ones that most succeeded were those which had a clear scope of work and which village communities needed their services, including village committees and village councils as a substitute to the village Sheikh, parents-teachers councils in running schools, and in some cases water-yards management committees being a forced alternative in many cases on the local communities.
The one advantage of the initiation of the previously listed array of institutions is the instilling of a tradition of organized self-help in rural areas, which could be banked on in programming labour-intensive projects. From findings in the 13 sites surveyed, people executed all kinds of projects especially in the area of village infrastructural developed, as shall be detailed under site cases, in Part II of the report.

3.4. The Present Set-up

The present government dissolved the previous set-up founded on the 1971 and 1980 Acts. Yet on past experience, regionalism and local government are held as the most practical systems for running rural areas. Hence revisions are under way of the two systems, and a new set-up may be enacted any time. This shall include too native administration; which is being reutilized as it is believed it can play an effective role in the administration of rural areas.

Meanwhile in this transitional period, the main feature of change in the previous system include at the three levels (district, rural council and village) the dissolution of elected bodies and their substitution by an administrative council(s)/committee(s). At the level of the district and the rural council, the new organ is an administrative council comprised of the heads of the councils' technical and services departments. While at the village level, it is an administrative committee headed by the village Sheikh assisted by 3 to 7
members. In all cases those forums were appointed by the Regions' Governor, or those he delegated his powers.

3.5. El Obeid District Budget

To complete the picture of the performance of the administrative set-up, 1985/86 El Obeid District budget, Table 21, shall be presented and analysed in relation to issues previously discussed.

The budget reflects the following features:-

- It is unstable in terms of both revenue and expenditure, with a high discrepancy between amounts estimated/budgeted and amounts actually collected (revenues) and approved (expenditure), hence characterized by variations from one year to another.

- Normally revenue estimation is based on feasible collections from crop tax, animal tax, trade licences, other licences, royalties on local products, a sugar tax, and taxes on real estate in towns. Since the first two are the major contributors to the revenue, especially the crop tax, and as crop volumes fluctuate from one year to another, the gap between revenue estimation and actual collection is almost established in every year's budget.
- It is an operational budget to run existing services and not a development one, with the greater part of the expenditure going into Chapter One, staff salaries and allowances.

- The budget covers all districts administrative units including the two town councils of El Obeid, the 4 rural councils of Umm Usheira, Abu Haeaz, Kazgeil and Khor Taqqat, and the nomads council of Shanabla. Hence per capita expenditure on this budget (budget over total population) is Ls.3.5 per annum. Meagre as it stands, it is more oriented towards expending on the town population.

- Apart from the major items of expenditure such as those going for headquarters staff salaries, and public sanitation, mostly spent on El Obeid town, the budget in its other facets is supplementary to other Region's specialized departments budgets, e.g. education and health.

3.6. Abu Haraz/Kazgeil Rural Councils Budgets

In follow up of the discussion on financial performance, Abu Haraz and Kazgeil Rural Councils are cited for illustration of the budgetary situation at this level. The data that shall be presented demonstrate clearly the full control of the District over the rural council's expenditure, with the
latter geared towards maintaining the council administration machinery, emphasising a complete lack of allocations for development programmes.

Starting with revenues the two councils generated the amounts indicated in Table 22.

**Table 22: Revenues generated by Abu Haraz and Kazgeil Rural Councils, 1985/86-1986/87 (Ls)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Councils</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Abu Haraz</td>
</tr>
<tr>
<td>Crop Tax (Ushur and Gibbana)</td>
<td>300,000</td>
</tr>
<tr>
<td>Animal Tax</td>
<td>10,000</td>
</tr>
<tr>
<td>Licenses</td>
<td>15,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>345,000</td>
</tr>
</tbody>
</table>

**Remark:** 1985/86 revenue of Kazgeil Rural Council was Ls. 407,000.

**Source:** Abu Haraz and Kazgeil Rural Councils Office files.

Since expenditure is fully controlled by the District Council, the only stable line item of the budget known to the executive local government officer in charge of the council is staff salary which is approximately 45 thousand pounds for each of the two councils per month.
b) General Secondary
   (At Rural Council level)
   5 boys boarding schools
   5 girls boarding schools

iii) Health
   15 health centres (including about 3 at El Obeid)
   9 dispensaries
   15 dressing stations
   82 primary care units

iv) Veterinary Clinics
   4 veterinary clinics

v) Marketing
   12 market places
   12 crop markets
   5 livestock markets

vi) Security
   4 police stations.

3.7.2. Rural Council level

This is presented in Table 24 by rural council and centre. In addition to the above listed types of services, there exist other government activities and services of community nature e.g. forestry offices, courts, police posts, co-operatives, flour mills, bakeries, etc. Fig. 2, gives the location of the various centres.
Fig. (2)  GEOGRAPHICAL DISTRIBUTION OF CENTRES

3.8. Government and Agency Developmental Activities

In surveying the 13 sites, we came across few government and agency developmental activities, which included:

1) Restocking of Hashab

This activity is carried out under the gum belt restocking programme supported by the EBC, whereby farmers of the gum belt involving Umm Ruwaba, El Obeid and Bara Districts are provided with Hashab seeds and seedlings to restock their plantations. The programme is organized on village basis with participants in some of the districts (Umm Ruwaba) given some food support as an inducement to join the programme.

The distribution of seeds and seedlings is organized by the Region's Forestry Department and run from nurseries and seed bank centres. In El Obeid District the progress of the programme seems to be slow, as villagers at a number of sites, especially in the central and northern parts of the project area, reported being approached with seeds and seedlings which were received by some farmers, however at intermittent times. Farmers prefer seeds to seedlings since the former can be easily preserved and timely seeded with the normal farmer's crops, thus not involving additional efforts.
11) UNICEF Women's Nursery

These exist at 3 sites, Ban Gadeid, Abu Haraz and Umm Arada. The first two are in good shape, while the last one is not progressing well. The programme aims at organizing women's efforts at small places around this activity for educational purposes, income generation and environmental enhancement.

The nursery at Ban Gadeid produces seedlings of indigenous tree species, including hashab and mesquite and seedlings of arbour plants. It has too tomato seed beds for transplanting. All three types are intended for sale to raise income for the women's society.

 Incorporated in the activity, is a handicraft development programme whereby improvements on local products manufactured by women are being started with marketing possibilities tried at El Obeid.

The programme runs too an illiteracy class, with about 50 women presently enrolled. Together with these activities midwives training is organized, with two mid-wives from the village about to complete their training at El Obeid.

At Abu Haraz the nursery is closely supervised by the forest technician there. It is producing about 20,000 seedlings of Hashab, which are targetted to be increased to 50,000 by the end of 1987 rainy season. The seedlings are intended for Hashab restocking at the surrounding villages.
iii) CARE Nursery at Khor Taqaat

CARE utilizing the waste from Khor Taqaat water-yard has managed to develop a nursery within the water-yard premises. The nursery is run by paid labour. The main species nursed are Nashat seedlings, some indigenous tree species plus arbour plants, which are intended for afforestation activities in the area of Khor Taqaat Rural Councils plus supplying arbour plants to El Obeid town.

iv) UNICEF Small Well Programme

UNICEF is currently executing a hand pump well programme under the supervision of the Rural Water Corporation - El Obeid, at Khor Taqaat, Kazgeil and Abu Haraz Rural Councils. The programme was started in May 1987 and is planned to be executed by the end of the year. It covers 85 sites in the three rural councils, where two rigs are operating at present. Well depths are in the range of 150-200 feet. Successful wells shall be installed with hand pumps. The distribution of sites by rural council is as follows:-
a) Khor Taggat Rural Council (29 sites)

Hillat El Omal
Hillat El Sahra
El Gallaba
Umm Hasheim
El Sunut
El Kharta
Faragallah
Ed Dankoj
Umm Marga
Tayba

Umm Shigil
El Lowsiib
El Hammadiya
El Inomiya
Khor El Digeil
El Kara
Umm Katira
Igeil
Kortag
El Ideilat

Umm Koka
El Galabiya
Igeilat
Midessic
Umm Diweik
Zangas
El Qulet
El Sunjkaya
Kenyor (El Himera)

b) Kazgeil Rural Council (29 sites)

Engedeti
El Timeid
Umm Shigea
Fartangul
Iredha
Umm Sorita
Alloba El Sug
Alloba El Onda
Umm Sigoor
Dageit

Saibat Sharg
Saibat Gharib
El Kawa
El Birka
Biteitik
El Shoshaib
El Anoba
El Birka Kenana
El Domaya
El Birka Ab-Janjara

El Mahata
El Birka El Dew
Abu Hanza
Ideilat
Angeit
Umm Hume
Tiboob El Wizeen
El Higearat

c) Abu Haraz Rural Council (27 sites)

El Minzafa
El Beka
Umm Sider
Shigla
El Miroikib
Umm Arada
El Makka
El Peraha
El Kerbeh

El Ayara
El Teina
El Samir
Abderbein
El Mamska
Abu Simun
Umm Suncaim
Farshaha
Umm Rmad

Mahadi
Umm Usboosh
Umm Soat
El Qreuid
Migeigh
Mufarax
El Kerker
Iroigah
Abu Haraz

Remark: * Sites included under ILO Labour-intensive programme.
3.9. Conclusion

The findings of this chapter lead to the following conclusions:

- That the district suffers from multi-fold weaknesses in the areas of planning, finance, and technical capabilities which render it incapable of improving and developing its resources, nor able to upgrade the performance of the existing services.

- These evident shortcomings could be traced in the instability of the local government system, the low budgets accorded, the lack of adequate and capable staff, the scarcity of equipment, and the division of responsibilities and powers between the local government system and the Region's technical departments.

- All of the above draw-backs have their manifestations on rural councils' performance and on village communities, with grass-roots priorities unrealized and blocked due to the inability of the Rural Councils and the District to act.

- On the other hand the assistance offered by the foreign agencies' programmes are unconcerted being founded on a sectoral approach and often lacking planned continuity.
These points lead to the conclusion that the rural communities of the study area are in need of assistance to improve their economic conditions and develop and upgrade the existing infrastructure of services. To assure meeting the real needs of the population and guarantee a measure of continuity of the efforts exerted in this direction, programmed development should be community founded. Labour-intensive projects at selected centres, identified on people's priorities, and executed in anticipation that any initial activity will have the chance to expand into a more comprehensive package, looks to be a feasible way of making this assistance reaches the needy population.
PART TWO

PROJECTS SITES
(RURAL COUNCIL)
CHAPTER IV

UMM UGHIRA RURAL COUNCIL SITES
4.1. Umm Usheira

4.1.1. Basic Information

4.1.1.1. Demographic Characteristics

- Site total population : 850
- Number of households  : 90
- Size of household     : 9.9
- Village ethnic composition : Shiwohat

4.1.1.2. Crop Raising

- Type of soil cultivated : sandy
- Main crops raised : Dukhun, sesame, with little marig and groundnut.
- Other crops raised : Watermelon, Lubia, Okra.

- Acreage  
<table>
<thead>
<tr>
<th></th>
<th>Mkhames</th>
<th>feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>15.08</td>
<td>22.62</td>
</tr>
<tr>
<td>Dukhun</td>
<td>7.55</td>
<td>11.25</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.20</td>
<td>0.30</td>
</tr>
<tr>
<td>Sesame</td>
<td>7.28</td>
<td>10.92</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.05</td>
<td>0.08</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations : 2.5 persons

- Yields (Kg./feddan)
  + Dukhun         : 13.72
  : Marig/nagad    : 72.83
  : Sesame         : 44.50
  : Groundnut      : 5.93
4.1.1.3. Livestock Raising

i) Present Household Ownership

Goats : 5.30
Sheep : 0.30
Cattle : 0.10
Donkeys : 1.00
Camels : 0.20

ii) Per Cent of Losses 1984/85 drought

Goats : 63.19
Sheep : 62.50
Cattle : 98.99
Donkeys : 33.33
Camels : 86.67

4.1.1.4. Gum Production Status

Ceased to give marketable production since 1974.

4.1.1.5. Energy supply/Fuel wood/Building Material

- Energy local needs: Adequately met
- Small scale production for the market: Practiced.
- Marketed at: Umm Usheira.

4.1.1.6. Income and dura status

- Average Household income : 2512.90
- Amount of dura produced by Household : 12.38
- Amount stored by Household : 0.00
- Deficit purchased : 10.50
- Household cash income : 2400.00
- Value of dura deficit : 525.00
- Cash balance : 1750.00
- per capita cash income : 175.00
4.1.2. Village Level Infrastructure

4.1.2.1. Education

1) Primary School Boys
   - Established 1948
   - Consists of 6 classes plus teachers' offices, built of permanent material.
   - Has boarding facilities, built of permanent material.
   - Number of pupils 255, of whom 180 are boarding pupils.
   - Number of teachers 8.

ii) Primary School Girls
    - Established 1965.
    - Consists of 6 classes plus offices built of permanent material.
    - Two classes collapsed and are out of use.
    - Has a boarding house.
    - Number of pupils 195, of whom 125 are boarding pupils.
    - Number of teachers 8.

iii) Kindergarten
    - Established 1979.
    - Premises built of local material.
    - Run by a lady worker.

4.1.2.2. Health Facilities

1) A dispensary
   - Established 1959.
   - Made of 2 rooms, a store, a hall and a kitchen, built of permanent material.
- Has wards of 5 huts, built of stone walls and thatched roofs.
- Staffed by a medical assistant and a nurse.
- Includes a house for medical assistant, built of permanent material.
- Main diseases treated are malaria, vomiting, diarrhea, measles and common colds.
- Out-patient cases are 50-60 per day.
- There is a midwife.

4.1.2.3. Water Supply
- A water-yard consisting of one bore-hole.
- Established 1985.
- Two hand-dug wells, established 1956 and 1974.

4.1.2.4. Other Services
i) Rural Council
- An approved rural council headquarters for Umm Usheira area.
- Two rooms were built through self-help but roof taken away by wind.

ii) A Court
- Established 1971.
- Built of local material.

iii) Market Place
- Consists of 8 operating shops.
- Runs a weekly marketing activity every Saturday and Tuesday.
- Includes a crop market and a livestock market.
iv) **Flour-mill Co-operative**
   - Membership 180.
   - Has a committee.

v) **Bakery**
   There is a bakery but not operating for the last 3 years.

vi) **A traditional Oil Presser**
    Sells oil and cakes to the villagers.

4.1.2.5. **Envelope Served by village**

Fig. 3 indicates the catchment area served by the village, comprised of 16 villages, coming mainly for the water-yard, the school, the dispensary and the market place.

4.1.3. **Experiences in Self-help Activities**

The village has presently 3 active institutional bodies:

- The administrative committee comprised of the two village Sheikhs, plus 6 members.
- The education council made of 12 persons, and
- The flour-mill co-operative committee comprised of 12 members.

The village community contributed funds and labour to the following activities:

i) **Buildings**
   - 4 class-rooms, 2 boys, 2 girls for completion of the two village schools, under the education ladder programme, 1969.
   - The kindergarten built of local material.
Fig. (3) Umm Usheira Catchment Area

SCALE 1:250,000
- Two rooms for the rural council headquarters.
- Two houses of local material for the water-yard clerk and mechanic, and
- a kitchen for the girls' dormitory, built of local material.

11) Maintenance
- Fences of girls' school, girls' boarding house, and teachers' houses, of local material.
- Teachers' house, of permanent material.

111) Equipment
- Purchased beds and mattresses for the dispensary.

4.1.4. Financing of Activities

Many of the above activities were financed on the "sugar" fund. The village receives regularly a ration of sugar. The committee in charge of distribution, with the agreement of the villagers, charges 2 piastres extra on the pound of sugar, which are collected and utilized in financing community activities.

4.1.5. Response to ILO Proposed Programme

The proposed programme for Umm Usheira consists:
- rehabilitation of existing boys and girls schools,
- 2 new dormitories including sanitation,
- rehabilitation of dispensary,
- a new veterinary clinic, and
- establishment of nursery and shelter belt for sand dune stabilization.
The villagers agreed that the above projects are of priority for improving infra-structural services and combating desertification. It was estimated that about 700 persons from the village and nearby villages shall be available to participate in the programme.

4.1.6. Priorities for Improving village Economy

The following priority list was suggested in the area of improvement of production, based on UNDP proposals:

Priority

1 : Pest control.
2 : Hashab rehabilitation and afforestation.
3 : Provision of agricultural credit.
5 : Development of handicrafts.
6 : Poultry development.
7 : Improvement of range and pasture.
8 : Improvement of storage facilities, and
9 : Use of artificial insemination for improvement of cattle breed.

4.1.7. Proposed Leadership

The village suggests that the administrative committee, comprised of the two village Sheikhs and 6 members be contacted for organization of the programme activities suggested for the village. The committee names are:
4.2. Fangoga

4.2.1. Basic Information

4.2.1.1. Demographic Characteristics

- Site total population: 900
- Number of households: 130
- Size of household: 7.5
- Village ethnic composition: Beni Omran.

4.2.1.2. Crop Raising

- Type of soil cultivated: Sandy, with clay attempted.
- Main crops raised: Dukhun and sesame.
- Other crops raised: Watermelon, lubia and okra.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Nakhilmas</th>
<th>Feidin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>14.80</td>
<td>22.20</td>
</tr>
<tr>
<td>Dukhun</td>
<td>7.15</td>
<td>10.73</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Sesame</td>
<td>7.65</td>
<td>11.47</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>
- Household members contributing to agricultural operations: 2 persons

- Yields (kg./foddan)
  - Buckwheat: 70.85
  - Marig/nagad: 0.00
  - Sesame: 69.54
  - Groundnut: 0.00

4.2.1.3. Livestock raising

i) Present household ownership
  - Goats: 5.20
  - Sheep: 1.90
  - Cattle: 0.20
  - Donkeys: 1.20
  - Camels: 0.40

ii) Per cent of losses 1984/85 drought
  - Goats: 48.51
  - Sheep: 82.57
  - Cattle: 98.00
  - Donkeys: 55.56
  - Camels: 0.00

4.2.1.4. Gum production status
  - ceased to give marketable production since 1975.

4.2.1.5. Energy supply/fuel wood/building material
  - Energy local needs: adequately met.
  - Small scale fuel wood production for the market: Practiced.
  - Marketed at: El Obeid.
4.2.1.6. Income and Dura Status

- Average Household Income  : 3607.70
- Amount of dura needed by Household (sacks) : 9.38
- Amount produced by Household  : 8.00
- Amount stored by Household  : 0.00
- Deficit purchased  : 1.38
- Household cash income  : 2966.05
- Value of dura deficit  : 68.75
- Cash balance  : 2858.45
- Per capita cash income  : 381.13

4.2.2. Village Level Infra-structure

4.2.2.1. Education

1) A Co-primary School
   - Established 1980.
   - Consists of 6 classes and 2 offices for teachers.
   - 3 of the classes and the 2 offices are built of permanent material, the other 3 classes of local material.
   - Has 240 pupils, 160 boys, 80 girls.
   - Has 6 teachers.

4.2.2.2. Health

1) A Medical Care-unit
   - Established 1978.
   - Housed in one room, and
   - Run by a nurse.
ii) There is a mid-wife in the village.

4.2.2.3. Water Supply

Three hafirs

1) En Nila
   - Established 1968.
   - Comprised of two hafirs.
   - Under rural water corporation.

ii) Umm Irig
   - Established 1986.
   - Hand-dug by villagers.

4.2.2.4. Other Services

- A market place with 3 operating shops.
- A crop market.
- A flour-mill co-operative, and
- A mosque built of local material.

4.2.2.5. Envelope Served by Village

Fig. 4 gives the envelope of villages served by Fangoga, mostly coming for the hafir, the school, and the shopping facilities. The envelope covers 19 villages.

4.2.3. Experience in Self-help Activities

The active institutions in the village are:
- The administrative committee, made of 6 members and headed by the 2 village sheikhs.
- The education council made of 12 persons, and
- The flour-mill co-operative committee comprised of 4 persons.
Fig. (4) Fangoga Catchment Area

SCALE 1: 250,000

EL OBEID DISTRICT BOUNDARY

N 13° 30' 10' 15' 30' E

JABU SINUN

EL OBEID
The community contributed funds and labour efforts to the following activities:

i) buildings
   - the school.
   - the primary care unit, and
   - excavation of hafir of umm Irig.

ii) others
   - established the co-operative 1967. Present membership 143, with an active committee of 4 persons.
   - bought a shop in 1985 which shall be used for organizing a consumer co-operative, and
   - participated in a tree conservation campaign organized in 1985 by students from the area.

4.2.4. Financing of Activities

They collect the 2 piastres on the pound of sugar and utilize the amounts raised in financing community activities. For example, they spent Ls.2,000 on the excavation of hafir of umm Irig, for paying locally organized labour.

4.2.5. Response to ILO Proposed Programme

The programme consists of the following activities:

- construction of 3 water spreading dykes for agricultural development.
- rehabilitation of the hafir, and
- establishment of a shelter belt.
The community received well the programme as an immediate priority for improving village conditions. They estimated that about 750 persons would be available from the village and surrounding villages for employment in the labour-intensive activities.

4.2.6. Priorities for Improving Village Economy.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Pest control.</td>
</tr>
<tr>
<td>ii</td>
<td>Hashab rehabilitation and shelter belts for sand dune stabilization.</td>
</tr>
<tr>
<td>iii</td>
<td>Water spreading dykes for agricultural development.</td>
</tr>
<tr>
<td>iv</td>
<td>Provision of agricultural credit.</td>
</tr>
<tr>
<td>v</td>
<td>Introduction of animal drawn implements.</td>
</tr>
<tr>
<td>vi</td>
<td>Development of handicrafts.</td>
</tr>
<tr>
<td>vii</td>
<td>Poultry development.</td>
</tr>
<tr>
<td>viii</td>
<td>Improvement of range and pasture.</td>
</tr>
<tr>
<td>ix</td>
<td>Improvement of storage facilities.</td>
</tr>
<tr>
<td>x</td>
<td>Use of artificial insemination for cattle improvement.</td>
</tr>
</tbody>
</table>

4.2.7. Proposed Leadership

The administrative committee comprised of the 2 village sheikhs plus 4 persons is suggested for organizing community action for implementation of the proposed SPWP:
CHAPTER V

ABU HARAZ RURAL COUNCIL SITES
CHAPTER V
ABU HARAZ RURAL COUNCIL SITES

5.1. Abu Sinun (Deba Nayer)

5.1.1. Basic Information

5.1.1.1. Demographic Characteristics
- Site total population : 500
- Number of households : 50
- Size of household : 8.0
- Village ethnic composition : Bargo Silehab

5.1.1.2. Crop Raising
- Type of soil cultivated : Sandy
- Main crops raised : Dukhun and sesame.
- Other crops raised : watermelon, Lubia, okra, and Tibish.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Nakhamas</th>
<th>Feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>17.00</td>
<td>25.50</td>
</tr>
<tr>
<td>Dukhun</td>
<td>7.70</td>
<td>11.55</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Sesame</td>
<td>9.30</td>
<td>13.95</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations : 2.5 persons

- Yields (Kg./Feddan)
  - Dukhun : 36.19
  - Marig/nagad : 0.00
  - Sesame : 105.14
  - Groundnut : 0.00
5.1.1.3. Livestock raising

i) Present household ownership

- Goats: 3.90
- Sheep: 0.00
- Cattle: 0.10
- Donkeys: 1.10
- Camels: 0.40

ii) Per cent of losses 1984/85 drought

- Goats: 72.73
- Sheep: 0.00
- Cattle: 99.52
- Donkeys: 60.71
- Camels: 77.78

5.1.1.4. Gum production status

Ceased to give marketable production since 1980.

5.1.1.5. Energy Supply/Fuel Wood/Building Material

- Energy local needs: adequately met
- Small scale fuel wood production for the market: Practiced.
- Marketed at: Abu Simun - El Obeid.

5.1.1.6. Income and Dura Status

- Average household income: 3490.37
- Amount of dura needed by household (sacks): 10.00
- Amount produced by household: 4.40
- Amount stored by household: 3.00
- Deficit purchased: 2.80
- Household cash income : 3100.00
- Value of duru deficit : 130.00
- Cash balance : 2970.00
- Per capita cash income : 370.00

5.1.2. Village Level Infrastructure

5.1.2.1. Education

A Co-primary school
- Established 1963.
- Consists of 6 class rooms, offices for teachers, a boarding house, and houses for the staff.
- The class rooms, the offices and the director house are built of permanent material.
- The boarding house and the teachers houses are of local material.
- The school and boarding facility use same toilets, which are not in good condition.
- Has 225 pupils; 139 boys, 86 girls.
- Boys in boarding house are 125, with no boarding girls.
- Has 8 teachers.

5.1.2.2. Health

A dressing station
- Established 1969.
- Run by a nurse.
- Comprised of dressing-station building and a house for nurse, all built of permanent material.
- Daily visitors estimated at 20 persons.
- Main diseases treated: Malaria, dysentary, measles, vomiting and diarrhoea.

- Village has a mid-wife.

5.1.2.3. Water supply

Two Hafirs

- No other reliable water source in village or close-by.
- In most years dry-up before the next rains.
- In late dry months the village depends on El Obeid for its water, transported by lorry or camel.
- This year late season water prices were 120 p.t. for a 4 gallons tin.

5.1.2.4. Other services

- 3 operating shops.
- A co-operative flour-mill.
- A mosque built of local material.
- Agricultural credit for farmers organized by ABS Branch, El Obeid.

5.1.2.5. Envelope served by village

Fig. 5 shows that about 17 villages depend on Abu Sinun for the hafir water and the school facility.

5.1.3. Experience in self-help activities

The following contributions in terms of funds and labour were organized by the village:
i) buildings  
   - added two classes under education ladder programme, 1969.
   - teachers' houses from local material.
   - pupils boarding house from local material, and
   - mosque.

ii) maintenance
   - fences of school, hafir and nurse house from local material.
   - feeder canals of the hafirs.

iii) others
   - pay the monthly salary of the hafir guard (£s. 85)
     collected from users of the hafir coming from some of the villages indicated in fig. 5.

5.1.4. financing of activities

The two sources for financing activities are the 2 piastres rate collected on the sugar pound, and the little charge raised on the hafir water. The administrative committee is responsible for organizing fund raising.

5.1.5. response to ILO proposed programme

The programme consists of:
   - construction of 3 water spreading dykes for agricultural development.
   - rehabilitation of hafir.
   - establishment of shelter belt.
villagers, in the meeting held, welcomed the programme as addressing immediate community needs. They estimated that about 700 persons could be available from the village and nearby villages to participate in the labour-intensive activities.

5.1.6. Priorities for improving village economy.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Pest control.</td>
</tr>
<tr>
<td>ii</td>
<td>Hashab rehabilitation and shelter belts for sand dune stabilization.</td>
</tr>
<tr>
<td>iii</td>
<td>Construction of water spreading dykes for agricultural development.</td>
</tr>
<tr>
<td>iv</td>
<td>Improvement of storage facilities.</td>
</tr>
<tr>
<td>v</td>
<td>Development of range and pasture.</td>
</tr>
<tr>
<td>vi</td>
<td>Provision of agricultural credit.</td>
</tr>
<tr>
<td>vii</td>
<td>Poultry development.</td>
</tr>
<tr>
<td>viii</td>
<td>Introduction of animal drawn implements.</td>
</tr>
<tr>
<td>ix</td>
<td>Development of handicrafts.</td>
</tr>
<tr>
<td>x</td>
<td>Use of artificial insemination for improvement of cattle breed.</td>
</tr>
</tbody>
</table>

5.1.7. Proposed Leadership

The village meeting suggested that for the implementation of ILO Programme, the agency contacts the village sheikh: Babiker Sheikh El Din El Nur, who shall organize a village meeting in which a representative body shall be selected to assist in organizing the activities of the programme.
5.2. Sum Aaraa

5.2.1. Basic Information

5.2.1.1. Demographic Characteristics

- Site total population : 2250
- Number of households : 250
- Size of household : 9.9
- Village ethnic composition : Mederiyah

5.2.1.2. Crop raising

- Type of soil cultivated : Sandy, with clay attempted.
- Main crops raised : Dukhun, sesame, with little marig/hagad and groundnut.
- Other crops raised : Okra, Lubia, watermelon, Tibish and Tomatoes.

- Acreage:
  - Household : 10.75 15.21
  - Dukhun : 5.15 7.73
  - Marig/hagad : 1.15 1.73
  - Sesame : 3.85 5.78
  - Groundnut : 0.60 0.90

- Household members contributing to agricultural operations : 3.5 persons

- Yields (kg./feddan)
  - Dukhun : 38.73
  - Marig/hagad : 95.00
  - Sesame : 95.00
  - Groundnut : 93.83
5.2.1.3. Livestock Raising

i) Present Household Ownership

- Goats : 2.90
- Sheep : 0.00
- Cattle : 2.10
- Donkeys : 1.90
- Camels : 0.30

ii) Per cent of Losses 1984/85 Drought

- Goats : 66.67
- Sheep : 100.00
- Cattle : 80.00
- Donkeys : 26.92
- Camels : 25.00

5.2.1.4. Gum Production Status

Ceased to give marketable production since 1983.

5.2.1.5. Energy Supply/fuel Wood/building Material

- Energy local needs : Adequately met.
- Small scale fuel wood production for the market : Practiced.
- Marketed at : El obeid

5.2.1.6. Income and Dura Status

- Average Household Income : 1738.32
- Amount of dura needed by household : 12.38
- Amount produced by H/hold : 4.80
- Amount stored by household : 1.00
- Deficit purchased: 6.58
- Household cash income: 1487.12
- Value of durum deficit: 328.75
- Cash balance: 1134.27
- Per capita cash income: 114.58

5.2.2. Village level infrastructure

5.2.2.1. Education

A co-primary school
- Established 1970.
- Consists of 6 class rooms, offices for teachers, a boarding house, and houses for the staff.
- Except for 3 class rooms and the staff office built of permanent material, all of the others listed units are built of local material.
- Has 267 pupils, 191 boys, 76 girls.
- Boys in boarding house are 100, with no boarding facility for girls.
- Has 7 teachers.

5.2.2.2. Health

A Health Care Unit
- Built of local material.
- Run by a nurse.
- Daily visitors estimated at 25.
- Main diseases treated are: Malaria, measles, vomiting, diarrhea and common colds.
- There is a mid-wife.
5.2.2.3. Water Supply

1) Hafir
   - Established 1966.
   - Water sufficient till next rainy season.
   - Maintained this year by Rural Water Corporation, hence ILO proposed maintenance of hafir under (SPWP) may be reconsidered.
   - In addition to local villages, the hafir water is utilized by nomads coming from the northern part of the region, for human use only.

11) Two hand dug wells
    - Provided 1951-52.
    - Utilized mainly for livestock supply, of village animals and those of nomads.

5.2.2.4. Other Services
    - 9 operating shops
    - A flour-mill.
    - A bakery.
    - 9 traditional oil seed pressers.
    - 5 red-brick kilns.
    - Cheese making during the rainy season.

5.2.2.5. Envelope served by village

Fig. 6 shows that about 20 villages are served by the hafir and the school.
5.2.3. Experience in Self-help Activities

The following institutional bodies exist at the village:
- The omda of the area, residing at the village.
- The administrative committee made of the village sheikh plus 11 members.
- The education council, comprised of 12 members, and
- The committee of the nursery (funded by UNICEF) made of 4 women, with a membership of 125 ladies.

The village community contributed funds and labour to the following activities:

i) buildings
   - 3 school classes from local material.
   - school boarding house from local material.
   - health care unit from local material.

ii) Maintenance
   - Annual maintenance of school premises.

5.2.4. Financing of Activities

The village community utilizes the 2 piastre rate on the pound of sugar for financing activities.

5.2.5. Response to ILO Proposed Programme

The programme components for Umm Areda are:
- Rehabilitation of existing infra-structure buildings.
- Rehabilitation of existing water spreading dyke.
- Construction of 5 new water spreading dykes.
- Construction of 2 new hafirs.
- Digging of 10 new shallow wells, 2 per dyke, and
- Establishment of shelter belt for sand dune stabilization.

The programme was well received in the meeting held with the villagers. They estimated that about 600 persons could be available from Umm Arada and the surrounding villages to participate in the programme activities.

Regarding rehabilitation of village infrastructure they proposed the following set of priorities:

i)学校
   - Completion of the 3 classes of the school with permanent material.
   - Building of school dormitory.
   - Improvement of school furniture.

ii) 新的女孩学校
    There is an approved girls school for the village which the community proposes to be given priority because of the pressure on the existing school.

iii) 医疗保健单元
    To be improved and built in permanent material.

iv) 新的兽医诊所
    Since a vaccination team operates every rainy season in the area using the village as a centre, and as nomads from the northern part of the region roam in the surroundings of
the village every dry season, they recommend that a veterinary clinic be built in the village.

An important issue was raised in relation to the construction of the proposed dykes for agricultural development, namely future land rights in the areas put to use. It was explained to them that the issue shall be resolved in consultation with the village community.

The land tenure question, has to be kept in mind as it shall arise in relation to this kind of development, not only at this site but in all the others where water spreading dykes are proposed.

5.2.6. **Priorities for Improving Village Economy.**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of water spreading dykes for agricultural development.</td>
</tr>
<tr>
<td>2</td>
<td>Introduction of animal drawn implements.</td>
</tr>
<tr>
<td>3</td>
<td>Provision of agricultural credit.</td>
</tr>
<tr>
<td>4</td>
<td>Pest control.</td>
</tr>
<tr>
<td>5</td>
<td>Improvement of storage facilities.</td>
</tr>
<tr>
<td>6</td>
<td>Use of artificial insemination for improvement of cattle breed.</td>
</tr>
<tr>
<td>7</td>
<td>Hashab rehabilitation and shelter belts for sand dune stabilization.</td>
</tr>
<tr>
<td>8</td>
<td>Poultry development.</td>
</tr>
<tr>
<td>9</td>
<td>Development of handicrafts.</td>
</tr>
<tr>
<td>10</td>
<td>Development of range and pasture.</td>
</tr>
</tbody>
</table>
5.2.7. **proposed Leadership**

The community proposes that the administrative committee comprised of the village Sheikh and 12 members assists in organizing the proposed projects:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hassan Hussein Mohamed El Kanoon (Sheikh)</td>
<td>35</td>
<td>Primary</td>
</tr>
<tr>
<td>2. Mohamed Ahmed Ali (Farmer)</td>
<td>37</td>
<td>Primary</td>
</tr>
<tr>
<td>3. Mohamed Ali Mahmoud (Farmer)</td>
<td>27</td>
<td>Primary</td>
</tr>
<tr>
<td>4. Mohamed Ahmed El Kanoon (Farmer)</td>
<td>30</td>
<td>Primary</td>
</tr>
<tr>
<td>5. Abdel Salam Mohamed Ahmed (Farmer/Builder)</td>
<td>38</td>
<td>Illiterate</td>
</tr>
<tr>
<td>7. Hussein Mohamed Hanb (Teacher)</td>
<td>35</td>
<td>Intermediate</td>
</tr>
<tr>
<td>8. Farah Hussein Mohamed (Farmer)</td>
<td>30</td>
<td>Illiterate</td>
</tr>
<tr>
<td>9. Siddig Abdel Nabi (Farmer/ Tailor)</td>
<td>30</td>
<td>Illiterate</td>
</tr>
<tr>
<td>10. Mohamed Hanoon El Redi (Farmer)</td>
<td>33</td>
<td>Illiterate</td>
</tr>
<tr>
<td>11. Mustafa Abdel Salam (Farmer)</td>
<td>22</td>
<td>Illiterate</td>
</tr>
<tr>
<td>12. Idris Mohamed Their El Seed (Teacher)</td>
<td>27</td>
<td>Secondary</td>
</tr>
</tbody>
</table>
5.3. Umm Ramad

5.3.1. Basic Information

5.3.1.1. Demographic Characteristics

- Site total population : 2812
- Number of households : 325
- Size of household : 8.7
- Village ethnic composition : Bedaniya.

5.3.1.2. Crop Raising

- Type of soil cultivated : Sandy
- Main crops raised : Dukhan, Sesame, with little Marig/nagad and groundnuts.
- Other crops raised : Okra, Lobia, watermelon and Tihish.

- Acreage : Makhamas \[ \text{Foddan} \]
  - Household : 12.00 \[ 18.00 \]
  - Dukhan : 4.50 \[ 6.75 \]
  - Marig/nagad : 0.20 \[ 0.30 \]
  - Sesame : 6.40 \[ 9.60 \]
  - Groundnut : 0.90 \[ 1.35 \]

- Household members contributing to agricultural operations : 2.3 persons

- Yields (kg./foddan)
  - Dukhan : 57.70
  - Marig/nagad : 31.67
  - Sesame : 90.05
  - Groundnut : 32.90
5.3.1.3. Livestock Raising

i) Present Household Ownership

- Goats: 4.10
- Sheep: 0.30
- Cattle: 1.40
- Donkeys: 0.80
- Camels: 0.20

ii) Per cent of losses 1984/85 drought

- Goats: 63.06
- Sheep: 97.67
- Cattle: 90.85
- Donkeys: 46.67
- Camels: 0.00

5.3.1.4. Gum Production Status

Ceased to give marketable production since 1980.

5.3.1.5. Energy Supply/Fuel Wood/Building Material

- Energy local needs: Adequately met.
- Small scale fuel wood production, for the market: Practiced.
- Marketed at: El Obeid.

5.3.1.6. Income and Dura Status:

- Average household income: 1992.20
- Amount of dura needed by household (Sacks): 10.88
- Amount produced by household: 4.10
- Amount stored by household: 0.00
5.3.2. Village Level Infrastructure

5.3.2.1. Education

1) One primary boys
   - Established 1957.
   - Consists of 6 class-rooms, offices for teachers, a boarding house and houses for the staff.

2) One primary girls
   - Established 1975.
   - Consists of 6 class-rooms, offices for teachers, a boarding house and houses for staff.

5.3.2.2. Health

A Dressing Station

- Established 1967.
- Run by a nurse.
- Built of permanent material, including a house for the nurse.
- Estimated daily visitors, 50 patients.
- Besides the local population, the dressing station serves Hawazm nomads during the rainy season and Shanaba and Kababish nomads visiting the area during the dry season.

- Main prevalent diseases: Malaria, respiratory system diseases, diarrheas, and malnutrition diseases.
5.3.2.3. Water-supply

1) Hafir

The source of supply for the village and nearby villages.
- Established 1969.
- In most years suffices till next rainy season
- Maintained this year during May and June by a Rural Water Development Corporation team, hence the proposed maintenance by LLO under (SPWP) may need to be reconsidered.

ii) Open Shaft Wells

- Utilized for human and animal supply, including nomads visiting the area.

5.3.2.4. Other Services

- A market place.
- A bakery.
- A mosque.

5.3.2.5. Envelope Served by village

Fig. 7 shows the area served by Umm Ramad, comprised of 9 villages using the schools and hafir facilities.

5.3.3. Experience in Self-help Activities

Institutions that are presently functioning in the village embrace:

- The administrative committee comprised of 6 Sheikhs, assisted by 10 members selected from among the village population.
- The education council made of 12 members.
The village contributed to the following activities:

i) Buildings
   - The 5th and 6th classes in the two schools, under the education ladder programme 1969.
   - Built a class, 1987, in the boys primary school.
   - Female teachers' residence.
   - Nurses house, plus
   - Raising money to build a mosque.

ii) Maintenance
   - Annual maintenance of open shaft wells.

5.3.4. Financing of Activities
Two sources are tapped, the 2 piastre rate collected on the sugar pound, and donations organized according to need, especially from the villages using the hafir water. For example they raised this year Le. 540 from villages depending on the hafir to spend on the hospitality of the Rural Water Development Corporation team, working on the maintenance of the hafir. Raising funds and expenditure on activities are organized by the administrative committee.

5.3.5. Response to ILO Proposed Programme
The programme for Umm Rameed includes:
- Rehabilitation of village infrastructure.
- Rehabilitation of hafir.
- Afforestation: tree planting and watering of Acacia senegal.
Fig. (7) Catchment area of Umm Ramad

El Obeid

Umm Ramad

Sherba

El Mashaga

Umm Rub

Es Samrat

Habass

Goggo

Umm Ushush

30° 00'

30° 15' E.
The village meeting agreed to the implementation of the above programme as serving some of their immediate needs. It was anticipated that about 600 villagers could be attracted by the SPWP.

5.3.6. Priorities for Improving Village Economy

Priority

i : Introduction of animal drawn implements.

ii : Pest control.

iii : Provision of agricultural credit.

iv : Hashab rehabilitation and shelter belts for sand dune stabilization.

v : Poultry development.

vi : Development of handicrafts.

vii : Improvement of range and pasture.

viii : Improvement of storage facilities.

ix : Use of artificial insemination for improving cattle breed.

5.3.7. Proposed Leadership

The leadership proposed to assist in the implementation of the SPWP is the administrative committee made of the 6 village Shaikhs, strengthened by 10 other members:
<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safi El Din Haroun (Sheikh)</td>
<td>45</td>
<td>Primary</td>
</tr>
<tr>
<td>Mustafa El Medani Ismail (Sheikh)</td>
<td>65</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Mohamed Musa Abdallah (Sheikh)</td>
<td>60</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Ahmed Osman Rahama, (Sheikh)</td>
<td>40</td>
<td>Primary</td>
</tr>
<tr>
<td>Beahir El Tahir Suliman (Sheikh)</td>
<td>45</td>
<td>Khalwa</td>
</tr>
<tr>
<td>Musa Saeed Habib (Sheikh)</td>
<td>45</td>
<td>Illiterate</td>
</tr>
<tr>
<td><strong>The other co-opted members:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ismail Hussein Ismail (Farmer)</td>
<td>47</td>
<td>Primary</td>
</tr>
<tr>
<td>Ahmed Mahmoud Ahmed (Teacher)</td>
<td>23</td>
<td>Secondary</td>
</tr>
<tr>
<td>Hamouda Mohamed Rahma (Farmer)</td>
<td>50</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Mohamed Gadal Adam (Farmer)</td>
<td>50</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Gadalla Abdalla (Farmer)</td>
<td>45</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Khalifa Hemad El Tom (Farmer)</td>
<td>35</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Khamis Khalifa Omer (Farmer)</td>
<td>60</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Adam Haseen Habib (Farmer)</td>
<td>35</td>
<td>Primary</td>
</tr>
<tr>
<td>Mohamed Mekki Mohamed (Farmer/Merchant)</td>
<td>50</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Mohamed Hussein Mohamed (Farmer)</td>
<td>50</td>
<td>Primary</td>
</tr>
</tbody>
</table>
5.4. Abderbain

5.4.1. Basic Information

5.4.1.1. Demographic Characteristics
- Site total population: 600
- Number of households: 79
- Size of household: 7.6
- Village ethnic composition: Bederiya.

5.4.1.2. Crop Raising
- Type of soil cultivated: Sandy and clay.
- Main crops raised: Dukhn, Sesame, with little marig/nagad and groundnut.
- Other crops raised: Okra, Lubia, watermelon, and Tibish.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Makhnas</th>
<th>Faddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>8.20</td>
<td>12.3</td>
</tr>
<tr>
<td>Dukhn</td>
<td>3.75</td>
<td>5.63</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.20</td>
<td>0.30</td>
</tr>
<tr>
<td>Sesame</td>
<td>3.50</td>
<td>5.25</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.75</td>
<td>1.13</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations: 2.6 persons

- Yields (Kg/faddan)
  - Dukhn: 36.65
  - Marig/nagad: 163.40
  - Sesame: 47.61
  - Groundnut: 140.25
5.4.1.3. Livestock Raising

i) Present Household ownership

- Goats : 5.30
- Sheep : 1.00
- Cattle : 0.00
- Donkeys : 0.90
- Camels : 0.00

ii) Per cent of losses 1984/85 drought

- Goats : 63.95
- Sheep : 79.59
- Cattle : 100.00
- Donkeys : 64.00
- Camels : 100.00

5.4.1.4. Gum Production Status

Ceased to give marketable production since 1980.

5.4.1.5. Energy Supply/Fuel Wood/Building Material

- Energy local needs : Adequately met.

- Small scale fuel wood production, for the market : Practiced.

- Marketed at : Abu Haraz - El Obeid.

5.4.1.5. Income and dura Status

- Average household income : Ls. 1589.11
- Amount of dura needed by household (sacks) : 9.50
- Amount produced by household : 2.69
- Amount stored by household : 0.00
- Deficit purchased : 6.81
- Household cash income : 1570
- Value of dura deficit : 340
- Cash balance : 1230
- Per Capita cash income : 122.63

5.4.2. Village Level Infra-structure

i) The Hafir

The main facility available in the village is the hafir, which dries up early in the year, about January.

ii) Others

The other services include an illiteracy class for women, and a mid-wife.

The village depends wholly on Abu Haraz for education, health, shopping and the other services, hence it is one of its catchment villages. Communication between Abu Haraz and the village becomes difficult during the rainy season, since the wadi separating the two sites may flood for many days.

5.4.3. Experience in Self-help

No experience in self-help in area of building and maintenance of facilities was reported, since no services exist in the village. However, the community has reciprocating relations within the village and with other villages.
5.4.4. Response to ILO Proposed Programme

The programme proposed for the village include:
- Construction of a new hāfir, and
- Establishment of shelter belt and sand dune stabilization.

The community fully supports the programme and is ready to contribute to its realization. It was estimated that about 400 workers may be raised from the village and nearby villages to participate in the labour-intensive activities.

5.4.5. Priorities for Improving Village Economy

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Introduction of animal drawn implements.</td>
</tr>
<tr>
<td>ii</td>
<td>Provision of agricultural credit.</td>
</tr>
<tr>
<td>iii</td>
<td>Pest control.</td>
</tr>
<tr>
<td>iv</td>
<td>Hashab rehabilitation and shelter belts for sand dune stabilization.</td>
</tr>
<tr>
<td>v</td>
<td>Poultry development</td>
</tr>
<tr>
<td>vi</td>
<td>Construction of water spreading dykes for agricultural development.</td>
</tr>
<tr>
<td>vii</td>
<td>Improvement of range and pasture.</td>
</tr>
</tbody>
</table>

5.4.6. Proposed leadership

The village was the headquarters of a village council, embracing the villages of Wardaa, Khadart, Umm Dileif, Umm Ireida, Uuggu, (shown in Fig.8), which may be considered as forming the small envelope of Abeerbaan, on basis of
dependency on the hafir for water supply. Hence there are presently two community institutions centred on Abderbein:
- a village council administrative committee formed of members embracing the 5 mentioned villages plus representatives from Abderbein, and
- the village administrative committee.

It was suggested that for implementing the projects proposed for the village, a joint committee involving the two institutions might be explored. Names proposed include:

- **Village Administrative Committee:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Abdalla Mohamed Fadul (Sheikh)</td>
<td>47</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>2. Hassan Suliman Adam (Farmer)</td>
<td>45</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>3. Mohamed Abakar Mohamed (Farmer)</td>
<td>35</td>
<td>Primary</td>
</tr>
<tr>
<td>4. El Saadig Saeed Fadul (Student)</td>
<td>23</td>
<td>Secondary</td>
</tr>
</tbody>
</table>

- **Village Council Administrative Committee:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Holi Mohamed Hamid (Wardas Village Farmer)</td>
<td>55</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>2. Gubera Suliman Ahmed (Khadart Village Farmer)</td>
<td>55</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>3. Hassan Ibrahim Khalil (Umm Dileif Village Farmer)</td>
<td>27</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>4. Sherf El Din Ibrahim Fadul (Umm Ircida Village Farmer)</td>
<td>43</td>
<td>Illiterate.</td>
</tr>
</tbody>
</table>
5.5. Abu Haraz

5.5.1. Basic Information

5.5.1.1. Demographic Characteristics
- Site total population : 6632
- Number of households : 700
- Size of household : 9.5
- Village ethnic composition : Bederiya, Dar Hamid, Danagalla, Fellata.

5.5.1.2. Crop Raising
- Type of soil cultivated : Sandy with gardud soil attempted.
- Main crops raised : Dukhun, sesame with little marig/nagad and groundnut.
- Other crops raised : Okra, Lubia, watermelon, Tibish and Tomatoes.

<table>
<thead>
<tr>
<th>Acresage</th>
<th>Makhomas</th>
<th>Faddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>12.30</td>
<td>18.45</td>
</tr>
<tr>
<td>Dukhun</td>
<td>5.25</td>
<td>7.88</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.50</td>
<td>0.75</td>
</tr>
<tr>
<td>Sesame</td>
<td>5.30</td>
<td>8.85</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.65</td>
<td>0.98</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations : 2.2 persons

- Yields (Kg/feddan)
  - Dukhun : 32.33
  - Marig/nagad : 50.67
  - Sesame : 34.89
  - Groundnut : 255.27
5.5.1.3. Livestock Raising

i) Present household Ownership

- Goats : 5.70
- Sheep : 2.10
- Cattle : 1.00
- Donkeys : 1.10
- Camels : 0.10

ii) Per Cent of Losses 1984/85 drought

- Goats : 62.25
- Sheep : 94.40
- Cattle : 93.06
- Donkeys : 62.07
- Camels : 0.00

5.5.1.4. Gum Production Status

Ceased to give marketable production since 1980.

5.5.1.5. Energy Supply/Fuel Wood/Building Material

- Energy Local needs : adequately met.
- Small scale fuel wood production, for the market : practiced.
- Large scale fuel wood commercial production : practiced.
- Marketed at : Abu Karaz and El Obeid.
5.5.1.6. Income and Dura Status

- Average household income : 2759.20
- Amount of dura needed by household : 11.88
- Amount produced by household : 3.08
- Amount stored by household : 0.60
- Deficit purchased : 8.20
- Household cash income : 2430.10
- Value of dura deficit : 410
- Cash balance : 2020
- Per capita cash income : 210

5.5.2. Village Level Infrastructure

5.5.2.1. Education

2 Primary schools boys.
1 Primary school girls.
1 Intermediate school boys.
1 Intermediate school girls.

5.5.2.2. Health

1 Dispensary.
Midwife service.

5.5.2.3. Water Supply

- Water-yard with two bore-holes, one functioning and the other out of order.
- 3 commercial bore-holes.
- Many open shaft wells.
council level.

- Education councils, one for each school.
- A farmers' union committee
- A number of gum producers association committees, and
- Co-operative committees.

The centre has a rich experience in initiating and implementing community oriented projects, which may be listed as follows:

1) **Education**

- Completion of two classes in all primary schools under the education ladder programme, 1969.
- Building of the boys primary school (B), 1978.
- Building of dormitories and completion of fences of intermediate schools.
- Building of the kindergarten 1974, and
- The nutrition centre, 1983.
ii) Health
- New extensions of the dispensary ward, 1983.

iii) Water Supply
- Initiation of a scheme to connect village houses with water involving the following actions:-
  - Planning the village, 1980
  - drilling of one more borehole, and
  - construction of a water tower.

iv) Electricity
- Contributed 23 thousand pounds to the cost of the power station, out of a total cost of 145 thousand pounds, with the difference met from the Region's resources, 1976.

v) Administration
- The rural council building, which costed 35 thousand pounds, fully raised by the community, 1982.
- The executive officer's house which costed 90 thousand pounds to which the community contributed 20 thousand pounds, 1986/87.

vi) Security
- The police houses from local material, 1970.
5.5.4. Financing of Activities

Three sources of finance were tapped, the Rural Council resources, the rate on sugar rationing and donations and subscriptions.

5.5.5. Response to ILO Proposed Programme

The programme components for Abu Haraz include:
- Rehabilitation of existing infra-structure buildings.
- New veterinary clinic.
- Establishment of nursery and shelter belt and sand dune stabilization.

These proposals were put before the meeting held at the council premises and attended by the Executive Officer and the representative of the community. The programme philosophy and content was accepted by the meeting.

In the area of infra-structural buildings the meeting proposed giving priority to the maintenance and completion of the infra-structure of the existing schools, especially:
- Addition of 2 class-rooms to the boys primary school (B).
- Fence wall of the girls intermediate school.
- Boarding facilities of the boys intermediate school, plus, completion of the dispensary fence wall.

Regarding nursery development, ILO may consider co-ordinating activities with UNICEF Nursery Programme presently implemented in the area.
As for labour availability for implementing the projects, the meeting estimated that up to a thousand workers could be raised from the area.

5.5.6. Priorities for Improving Village Economy.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Building of 6 km. of road El Obeid-Abu Haraz (as suggested in UNDP Programme).</td>
</tr>
<tr>
<td>ii</td>
<td>Introduction of animal drawn implements.</td>
</tr>
<tr>
<td>iii</td>
<td>Pest control.</td>
</tr>
<tr>
<td>iv</td>
<td>Provision of agricultural credit.</td>
</tr>
<tr>
<td>v</td>
<td>Construction of water spreading dykes for agricultural development.</td>
</tr>
<tr>
<td>vi</td>
<td>Hashab rehabilitation and development of shelter belts for sand dune stabilization.</td>
</tr>
<tr>
<td>vii</td>
<td>Improvement of range and pasture.</td>
</tr>
<tr>
<td>viii</td>
<td>Poultry development.</td>
</tr>
<tr>
<td>ix</td>
<td>Improvement of handicrafts.</td>
</tr>
<tr>
<td>x</td>
<td>Improvement of storage facilities.</td>
</tr>
<tr>
<td>xi</td>
<td>Use of artificial insemination for improvement of cattle breed.</td>
</tr>
</tbody>
</table>

5.5.7. Proposed Leadership

The meeting proposed that the administrative committee plus two more co-opted members form the organ for future co-operation in the execution of the proposed programme. Names given include:-
- Administrative Committee -

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Council Executive Officer</td>
<td></td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Ali Mohamed Bella (Sheikh/Farmer)</td>
<td>75</td>
<td>Primary.</td>
</tr>
<tr>
<td>Abdel Cadir Khalifa (Sheikh/merchant)</td>
<td>58</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Mohamed Zaki El Din (Sheikh/Farmer)</td>
<td>54</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Hassan Hussein Hamid (Sheikh/Farmer)</td>
<td>38</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Mohamed Ali Sheba (Sheikh/Farmer)</td>
<td>85</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Mohamed Salim Padialla (Sheikh/Farmer)</td>
<td>80</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Ibrahim Abdallah (Sheikh/Farmer)</td>
<td>75</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Suliman Ibrahim (Sheikh/Farmer)</td>
<td>75</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Hussein Ahmed Hamid (Sheikh/Farmer)</td>
<td>30</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Mohamed Hamid (Sheikh/Farmer)</td>
<td>50</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Director, Intermediate School Girls</td>
<td></td>
<td>Secondary.</td>
</tr>
<tr>
<td>Director, Intermediate School Boys</td>
<td></td>
<td>Secondary.</td>
</tr>
<tr>
<td>Director, Primary Boys (A)</td>
<td></td>
<td>Intermediate</td>
</tr>
<tr>
<td>Director, Primary Boys (B)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veterinary Assistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Police Superintendent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Plus 2 co-opted members:

18. Abdel Cahir Khalifa (Merchant).
CHAPTER VI
KAGHIL RURAL COUNCIL SITES
CHAPTER VI
KAZGHIL RURAL COUNCIL SITES

6.1. Kazghil

6.1.1. Basic Information

6.1.1.1. Demographic Characteristics

- Site total population : 8000
- Number of households : 830
- Size of household : 9.6
- Village ethnic composition : Dago, Tumam, Bederiya, Barro, Bargo, Follata.

6.1.1.2. Crop Raising

- Type of soil cultivated : Sandy, with clay soil attempted.
- Main crops raised : Dukhun, sesame, marig/nagad and groundnut.
- Other crops raised : Okra, Lubia, Tomato, Tibish and watermelon.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Mokhamas</th>
<th>Feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>12.50</td>
<td>18.75</td>
</tr>
<tr>
<td>Dukhun</td>
<td>5.85</td>
<td>8.78</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.90</td>
<td>1.35</td>
</tr>
<tr>
<td>Sesame</td>
<td>4.75</td>
<td>7.13</td>
</tr>
<tr>
<td>Groundnut</td>
<td>1.00</td>
<td>1.50</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations : 3 persons.
- Yields (Kg/paddan)
  - Dukhun : 20.03
  - Marig/nagad : 31.67
  - Sesame : 39.73
  - Groundnut : 81.48

6.1.1.3. Livestock Raising

i) Present Household Ownership

- Goats : 5.40
- Sheep : 0.00
- Cattle : 1.00
- Donkeys : 1.00
- Camels : 0.00

ii) Per Cent of Losses 1984/85 drought

- Goats : 34.94
- Sheep : 100.00
- Cattle : 90.83
- Donkeys : 54.55
- Camels : 0.00

6.1.1.4. Gum Production Status

Ceased to give marketable production since 1984.

6.1.1.5. Energy Supply/Fuel Wood/Building Material

- Energy local needs : Adequately met.
- Small scale fuel wood production for the market : Practiced.
- Marketed at : Kazgeil and El Obeid.
6.1.1.6. Income and Dura Status

- Average Household Income : Ls. 2713.27
- Amount of dura needed by Household (Sacks) : 12.00
- Amount produced by Household : 2.20
- Amount stored by Household : 4.20
- Deficit purchased : 5.60
- Household cash income : 3540
- Value of dura deficit : 320
- Cash balance : 2220
- Per capita cash income : 220

6.1.2. Village Level Infrastructure

6.1.2.1. Education

2 Primary boys.
1 Primary girls.
1 Intermediate boys.
1 Intermediate girls.

6.1.2.2. Health

1 Dispensary.
2 Midwives
- Nutrition extension service.

6.1.2.3. Water Supply

- Used to depend on "mataras", big diameter open shaft wells, at Kania about 2 km. from the centre, which are still used, 10 mataras, depths 6 metres.
- Shifted to UNICEF hand-pump wells, recently drilled at sites, 5 successful wells in total, with depths ranging from 180-200 ft.

6.1.2.4. Other Services
- Rural Council headquarters.
- Police post.
- Veterinary clinic.
- Market place with organized weekly market activity.
- A crop market (45 operating shops).
- A livestock market.
- Coffee places.
- 2 flour-mills (one co-operative).
- 2 bakeries.

6.1.2.5. Envelope Served by Village

Fig. 7 indicates that about 16 villages are served by Kasegil centre. Though the place commands central place functions, the number of settlements depending on it is minimized by the proximity of the two central places of Gaibat and Ben Gadeid.

6.1.3. Experience in Self-help

The institutions presently functioning in the village consist of:

- The administrative committee comprised of the Executive Local Government Officer, 4 village Sheikhs plus 2 heads of departments: the medical
Fig. (9) Kazgeil Catchment Area

Kazgeil

Scale 1: 250,000
assistant and the police superintendent.

- The education councils, with one for each of the 4 schools.

The self-help activities organized by the village community include:-

i) **Education**

- Contributed 4 classes under the education ladder, 2 for each primary school, at a cost of 6 thousand pounds, 1971.
- Built the girls intermediate school, 3 class-rooms 2 offices and utilities, at a cost of 16 thousand pounds.
- Fence walls of teachers' houses, from local material.
- Kindergarten from local material.

ii) **Health**

- Building and furnishing of two wards for the dispensary.

iii) **Administration**

- Contributed 25 thousand pounds for building the rural council headquarters and the executive officers' residence, 1979/80.

iv) **Security**

- Contributed 2.5 thousand pounds to building the police station.
v) Religious
   - Built the mosque at a cost of 40 thousand pounds.

6.1.4. Financing of Activities
The sources of financing the above activities included the 2 piastre rate on the sugar pound, donations and organized subscriptions plus support from the rural council funds.

6.1.5. Response to ILO Proposed Programme
The programme for Kazgeil encompassed--
- Rehabilitation of existing infra-structure buildings, and
- A new veterinary clinic.

The meeting endorsed implementing the above activities. It was estimated that about 700 workers could be organized for implementing the programme.

The priorities cited in relation to rehabilitation of existing infra-structure may be listed as follows:-

i) Boys Primary School
   - Fence wall and utilities.
   - School furniture.

ii) Girls Primary School
    - Fence wall and utilities.
    - School furniture.

iii) Intermediate boys
    - Fence wall and utilities.
    - Maintenance of existing buildings.
iv) Intermediate girls
   - Dormitory and utilities.
   - Laboratory.

v) Newly suggested Projects
   - Staff housing for all 4 schools.
   - One stream in boys intermediate school, approved, but not yet built.

6.1.6. Priorities for Improving Village Economy.

Priority

i : Pest control

ii : Provision of agricultural credit.

iii : Construction of water spreading dykes for agricultural development.


v : Road connection to El Obeid-Killing main road (as suggested in UNDP Proposed Programme).

vi : Poultry development

vii : Development of handicrafts.

viii : Hashab rehabilitation and shelter belts for sand dune stabilization.

ix : Range and pasture improvement.

x : Improvement of storage facilities.

xi : Use of artificial insemination for improvement of cattle breed.

6.1.7. Proposed Leadership

It was proposed that the administrative committee should be officially contacted to assist in the implementation
of the SEWP, however it was remarked that the committee needs to be strengthened by other members from the community. This shall be done later when the programme is staged. Names of the Administrative Committee were given as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rural Council Executive Officer................</td>
<td></td>
<td>University</td>
</tr>
<tr>
<td>2. Awadella Tibeig (Sheikh).........................</td>
<td>41</td>
<td>Illiterate</td>
</tr>
<tr>
<td>3. Ali Idris Ali (Sheikh)............................</td>
<td>55</td>
<td>Illiterate</td>
</tr>
<tr>
<td>4. Mohamed Ibrahim Adam (Sheikh)....................</td>
<td>60</td>
<td>Illiterate</td>
</tr>
<tr>
<td>5. El Tahir Musa (Sheikh)............................</td>
<td>70</td>
<td>Illiterate</td>
</tr>
<tr>
<td>6. Alam El Huda Mohamed Ahmed (Medical Assistant)</td>
<td>50</td>
<td>Intermediate</td>
</tr>
<tr>
<td>7. Hadid Sadoon (Police Superintendent)...........</td>
<td>50</td>
<td>Illiterate</td>
</tr>
</tbody>
</table>
6.2. Gaibat

6.2.1. Basic Information

6.2.1.1. Demographic Characteristics

- Site total population: 2200
- Number of Households: 270
- Size of Household: 8.4
- Village ethnic composition: Bederiya, and Bargo.

6.2.1.2. Crop Raising

- Type of soil cultivated: Sandy with clay attempted.
- Main crops raised: Dukhun, sesame, marig/nagad and groundnut.
- Other crops raised: Okra, Lubia, Tomato, Tibish and watermelon.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Makhamas</th>
<th>Feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>10.48</td>
<td>15.72</td>
</tr>
<tr>
<td>Dukhun</td>
<td>3.65</td>
<td>5.48</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>2.33</td>
<td>3.50</td>
</tr>
<tr>
<td>Sesame</td>
<td>3.50</td>
<td>5.25</td>
</tr>
<tr>
<td>Groundnut</td>
<td>1.00</td>
<td>1.50</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations: 2.5 persons

- Yields (Kg./Feddan)
  - Dukhun: 8.61
  - Marig/nagad: 1.72
  - Sesame: 27.14
  - Groundnut: 26.67
6.2.1.3. Livestock Raising

i) Present Household Ownership
- Goats : 4.20
- Sheep : 0.70
- Cattle : 0.00
- Donkeys : 0.70
- Camels : 0.00

ii) Per Cent of Losses 1984/85 drought
- Goats : 61.47
- Sheep : 96.09
- Cattle : 100.00
- Donkeys : 55.25
- Camels : 0.00

6.2.1.4. Gum Production Status
Ceased to give marketable production since 1981.

6.2.1.5. Energy Supply/Fuel Wood/Building Material
- Energy local needs : Adequately met
- Small scale fuel wood production for the market : Practiced.
- Marketed at : Geibat - El Obeid.

6.2.1.6. Income and Dura Status
- Average Household income : £s. 1778.79
- Amount of dura needed by Household (Sacks) : 10.50
- Amount produced by Household : 0.44
- Amount stored by Household : 3.40
- Deficit purchased : 6.70
- Household cash income : 1776.94
- Value of durra deficit : 350.85
- Cash balance : 1776.94
- Per capita cash income : 161.45

6.2.2. Village Level Infra-structure

6.2.2.1. Education

i) Primary school boys
   - Established 1944.
   - Class rooms and offices built of permanent material.
   - Has boarding facility built of local material.
   - Number of pupils 270 with 200 in boarding house.
   - Has 7 teachers.

ii) Primary school girls
   - Established 1962.
   - Class rooms and offices built of permanent material.
   - Has boarding facility built of local material.
   - Number of pupils 150, with 80 in boarding house.

iii) Intermediate Schools - boys
   - Established 1981.
   - 3 class rooms and offices built of permanent material.
   - Has boarding facility built of local material with no utilities and fence.
   - Number of pupils 150.
   - Has 4 teachers.
6.2.2.2. Health Dispensary
- Established 1952.
- Run by a medical assistant and a nurse.
- There is a midwife.

6.2.2.3. Water Supply
i) One open shaft well:
   - Main source of supply.
   - 46 metres deep.
   - In case of pressure people go to nearby El Birka.

ii) One bore-hole:
   - Drilled 1983 but not yet developed i.e. not installed with engine and pump.

6.2.2.4. Other Services
- Police post, 1979
- A market place with 25 operating shops, and a weekly marketing activity.
- A crop market.
- A livestock market.
- A flour-mill
- A bakery.

6.2.2.5. Envelope Served by Village

Fig. 10 shows that the village serves about 25 villages including El Birka Ab-Janjara, which mainly depend on this centre for the education, health and marketing facilities.
6.2.3. Experience in Self-help

The institutions presently functioning in the village include:

i) The Omada office, since the Omada of the area resides in the village.

ii) The administrative committee comprised of the Omada and the Sheikh plus 4 other members.

iii) The education councils of the 3 schools.

The self-help projects executed by the community include:

i) **Education**
   - Added 2 classes to each of the boys and girls schools, under the education ladder programme, 1969.
   - Built the boys intermediate school, 1981.
   - Built the boarding houses of the three schools of local material.
   - Contributed funds to the establishment of 5 new primary schools at villages around the centre.

ii) **Security**
   - Built the police post.

iii) **Water Supply**
   - Contributed Rs. 800 to the maintenance of El Birka hafir.
6.2.4. Financing of activities

Four sources for fund raising were mentioned. These include: increased collection rates on sugar rationing over the 2 piastres decided by the rural council, a small tax on crops that reach the market plus subscriptions and donations. The community already raised an amount of 12 thousand pounds from the sugar rate which they are going to utilize in developing the bore-hole.

6.2.5. Response to ILO Proposed Programme.

The programme for gaibat embraces:
- construction of a new hafir.
- establishment of a nursery and shelter belt for sand dune stabilization.

The community approves of the programme and is ready to assist in its implementation. It was estimated that about 600 workers could be attracted by the labour intensive employment that shall be generated by the programme.

6.2.6. Priorities for Improving Village Economy

1) Introduction of animal drawn implements.

2) Construction of water spreading dykes for agricultural development.

3) Pest control.

4) Hasheeb rehabilitation and shelter belts for sand dune stabilization.
v) Provision of agricultural credit.
vi) Improvement of range and pasture.

vii) Poultry development.

viii) Development of handicrafts.

ix) Improvement of storage facilities.

x) Use of artificial insemination for improvement of cattle breed.

6.2.7. Proposed Leadership

The suggestion made regarding community leadership was that on implementing the programme, the project staff shall contact the Omda and Sheikh who will organize a village meeting in which a committee shall be selected. The names of the Omda and Sheikh are:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. El Kensai El Bedawi (Omda).............</td>
<td>55</td>
<td>Intermediate</td>
</tr>
<tr>
<td>2. Hassan El Faki Medani Abu Safia (Sheikh)</td>
<td>58</td>
<td>Khalwa</td>
</tr>
</tbody>
</table>
### 6.3. El Birka Ab-Janjora

#### 6.3.1. Basic Information

**6.3.1.1. Demographic Characteristics**

- **Site total population**: 700
- **Number of Households**: 80
- **Size of Household**: 9.0
- **Village ethnic composition**: Beberiya.

#### 6.3.1.2. Crop Raising

- **Type of soil cultivated**: Sandy with clay attempted.
- **Main crops raised**: Dukhun, Sesame, Marig/nagad and Groundnut.
- **Other crops raised**: Okra, Lubis, Tomato, Tibish and Watermelon.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Makhamas</th>
<th>Feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>10.30</td>
<td>15.45</td>
</tr>
<tr>
<td>Dukhun</td>
<td>4.10</td>
<td>6.15</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.75</td>
<td>1.13</td>
</tr>
<tr>
<td>Sesame</td>
<td>4.20</td>
<td>6.30</td>
</tr>
<tr>
<td>Groundnut</td>
<td>1.25</td>
<td>1.88</td>
</tr>
</tbody>
</table>

- **Household members contributing to agricultural operations**: 3.5 persons.

**Yields (Kg./Feddan)**

- Dukhun: 16.27
- Marig/nagad: 36.31
- Sesame: 32.51
- Groundnut: 98.55
6.3.1.3. Livestock Raising

1) Present Household Ownership
   - Goats : 3.70
   - Sheep : 0.70
   - Cattle : 2.70
   - Donkeys : 1.30
   - Camels : 0.00

11) Per Cent of Losses 1984/85 drought
   - Goats : 51.32
   - Sheep : 63.16
   - Cattle : 64.86
   - Donkeys : 43.48
   - Camels : 0.00

6.3.1.4. Gum Production Status
   Ceased to give marketable production since 1975.

6.3.1.5. Energy Supply/Fuel Wood/Building Material
   - Energy local needs : adequately met
   - Small scale fuel wood production for the market : Practiced.
   - Marketed at : Gaibat - Kazgeil.

6.3.1.6. Income and Dura Status
   - Average Household income : Ls. 1572.08
   - Amount of dura needed by Household : 11.25
   - Amount produced by Household : 1.55
   - Amount stored by Household : 2.10
   - Deficit purchased : 7.60
6.3.2. **Village Infra-structure**

The village is poor in infrastructural facilities. The ones existing include:

1) **Education**
   - A co-primary school, built of local material which will open in 1987, with a capacity of 45 pupils.

2) **Health**
   - A Primary care unit, established 1987.

3) **Water Supply**
   - 2 hafirs:
     - A big one established 1967, and a small one 1948.
     - An open shaft well, 34 metres depth, established 1952.

The village lies about 6 km. from Gaibat and is one of its satellite settlements, hence depends fully on Gaibat for the other services.

6.3.3. **Experience in Self-help**

The following contributions were made by the village community:
- Funds for the maintenance of the hafir.
- Built the primary school and the primary care unit from local material, including a house for the school teacher and one for the nurse.

6.3.4. **Response to ILO Programme**

The programme planned for El Birka embraces:
- Construction of a new hafir
- Construction of 3 water spreading dykes for agricultural development.
- Rehabilitation of existing buildings.

The community supports fully the first two components of the programme. As for the 3rd. component it was poorly identified, since there is no existing village infrastructure to be rehabilitated. Hence ILO may reconsider utilizing the funds allocated for this component to building the newly started primary school and the primary care unit.

About 100 workers were estimated by the meeting to be involved in the labour intensive activities.

6.3.5. **Priorities for Improving Village Economy**

**Priority**

1: Construction of water spreading dykes for agricultural development.

11: Introduction of animal drawn implements.

iii: Hashab rehabilitation and shelter belts for sand dune stabilization.
iv : Provision of agricultural credit.
v : Pest control.
vi : Poultry development.
vii : Improvement of range and pasture.
viii : Improvement of storage facilities.
ix : Use of artificial insemination for improvement of cattle breed.

5.4.6. Proposed Leadership

There are four active institutions in the village:

i) An Omda office, since the Omda for the area resides at the village.

ii) An area committee comprised of the Omda and 5 Sheiks of nearby villages.

iii) The village administrative committee formed of the village Sheikh and 2 members, and

iv) The education council made of 11 members.

For future assistance in the implementation of the EWP, it was suggested that a committee shall be selected at the start of the programme by the village community. The focal point of the community for organizing the selection is the administrative committee, comprised of:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mohamed Hamed Mohamed (Sheikh)</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>2. Abu Sara Hamed (Farmer)</td>
<td>85</td>
<td>Illiterate</td>
</tr>
<tr>
<td>3. Hamid Ahmed Mohamed (Farmer)</td>
<td>53</td>
<td>Illiterate</td>
</tr>
</tbody>
</table>
CHAPTER VII
KHOR TAGGAT RURAL COUNCIL SITES
CHAPTER VII
KHOR TABBAT RURAL COUNCIL SITES

7.1. El Hammadiya

7.1.1. Basic Information

7.1.1.1. Demographic Characteristics

- Site total population: 1217
- Number of Households: 160
- Size of Household: 7.8
- Village ethnic composition: Manasra and Gidayat.

7.1.1.2. Crop Raising

- Type of soil cultivated: Sandy,
- Main crops raised: Dukhun and sesame.
- Other crops raised: Lubia, okra, watermelon and Tibish.

- Acreage

<table>
<thead>
<tr>
<th></th>
<th>Makhamas</th>
<th>Feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>15.30</td>
<td>22.95</td>
</tr>
<tr>
<td>Dukhun</td>
<td>7.50</td>
<td>11.25</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Sesame</td>
<td>7.80</td>
<td>11.70</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations: 2.6 persons

- Yields (Kg./feddan)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dukhun</td>
<td>22.80</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>0.00</td>
</tr>
<tr>
<td>Sesame</td>
<td>59.27</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.00</td>
</tr>
</tbody>
</table>
7.1.1.3. Livestock Raising

i) Present Household ownership

- Goats : 2.70
- Sheep : 1.30
- Cattle : 0.00
- Donkeys : 0.40
- Camels : 0.00

ii) Per cent of losses 1984/85 drought

- Goats : 72.45
- Sheep : 84.34
- Cattle : 100.00
- Donkeys : 80.95
- Camels : 100.00

7.1.1.4. Gum Production Status

Ceased to give marketable production since 1978.

7.1.1.5. Energy Supply/Fuel wood/Building Material

- Energy local needs : Adequately met
- Small scale fuel wood production for the market : Practiced.
- Marketed at : El Obeid-Khor Taqqat

7.1.1.6. Income and dura Status

- Average Household income : Ls. 1755.00
- Amount of dura needed by Household : 9.75
- Amount produced by Household : 2.70
- Amount stored by Household : 2.40
- Deficit purchased : 4.65
- Household cash income : Ls. 1524.50
- Value of dura deficit : 238.80
- Cash Balance : 1258.7
- Per capita cash income : 125.87

7.1.2. Village Level Infra-structure

There is no developed village infra-structure in El Hammadiya, except for the following 5 types of services:

i) A newly started co-primary school built of local material.

ii) A primary care unit built of permanent material, 1986 and run by a nurse.

iii) A hafir located at about 5 km. from the village and shared by a number of villages, Fig.11.

iv) A newly built mosque which was donated by a rich fellow-villager residing at Khartoum, and

v) A number of village shops.

For the other services the village population goes to nearby Khor Teqitat centre.

7.1.3. Experience in Self-help

Recently, the village undertook the following activities:

i) Built the school class through a Nafir, utilizing village labour for collection of local material and the construction work.

ii) Financed the cost of building the primary care unit through organizing subscriptions.
Fig. (11)  Location of villages using El Hammadiya Hafir

- El Hammadiya
- Umm Kuka
- Qailelat
- Demokia
- Khor Taght
- Kau
- El Geimil
- El Hideniya
- Khartoum

(Latitude 13° 30' N, Longitude 30° 15' E)
iii) Opened the hafir main canal from the Jebel to the hafir, and

iv) Raised a sum of 6 thousand pounds which they plan to use in constructing a permanent building for the school.

7.1.4. Response to ILO Programme
The programme for El Hammadiya includes:
- Rehabilitation of hafir.
- Establishment of shelter belt.

The village received the programme with great enthusiasm since it serves two immediate needs, provision of water and hashab rehabilitation. The existing hafir dries up at the best of its times by March; and in many years by October, after which time the village population relies on water transported by truck from El Obeid. Equally hashab gum used to contribute substantially to household income, but diminished recently.

It was estimated that about 300 persons could be made available from the village and nearby villages for employment as wage labour in the two proposed projects.

7.1.5. Priorities for Improving Village Economy

Priority

i : Pest control.

ii : Hashab rehabilitation and shelter belts for sand dune stabilization.

iii : Introduction of animal drawn implements.
iv : Poultry development
v : Improvement of range and pasture.
vi : Provision of agricultural credit.
vii : Construction of water spreading dykes for agricultural development (at three suggested wadis: Hamoba, En Nila and El Teina).
viii : Development of handicrafts.
ix : Improvement of storage facilities.
x : Use of artificial insemination for improvement of cattle breed.

7.1.6. Proposed Leadership

Two institutions exist in the village:—

- The administrative committee made of the 3 Sheikhs of the village, and

- A multi-purpose village development committee comprised of 15 members which was formed in June 1986 to look after the village projects.

The meeting proposed the development committee to be the organ for assisting in implementation of the SPWP. The committee includes the following names:—

<table>
<thead>
<tr>
<th>Name</th>
<th>age</th>
<th>education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awadalla Teirab (Farmer-Chairman)</td>
<td>37</td>
<td>Primary.</td>
</tr>
<tr>
<td>Abdel Gadir Ali (Farmer-Secretary)</td>
<td>35</td>
<td>Primary.</td>
</tr>
<tr>
<td>Ali El Kheir (Farmer-Treasurer)</td>
<td>45</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Abdel A'al El Nur (Farmer-Member)</td>
<td>45</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Ahmed El Ton (Farmer-member)</td>
<td>50</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Fadlalla Abdalla (Farmer)</td>
<td>55</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Mohamed Ahmed Yousif (Farmer)</td>
<td>40</td>
<td>Primary.</td>
</tr>
</tbody>
</table>
8. Adam Ali (Farmer) .......................... 60 Illiterate
9. Abdella Mustafa (Farmer) ................. 40 Primary,
11. El Hafiz Mekawi (Farmer) ............... 35 Primary.
12. Ibrahim Adam (Teacher) .................. 35 Secondary.
13. Awadel Sid Alla'ala (Farmer) ............ 45 Illiterate.
15. Mustafa Ahmed (Farmer) .................. 50 Primary.

7.2. Jebel Kordofan

7.2.1. Basic Information

7.2.1.1. Demographic Characteristics
- Site total population : 854
- Number of households : 120
- Size of household : 7.3
- Village ethnic composition : Fellates, Gawanaa and Dago.

7.2.1.2. Crop Raising
- Type of soil cultivated : Sandy with clay and gardud attempted.
- Main crops raised : Dukhun, Sesame, marig/nagad with little groundnut.
- Other crops raised : Okra, Lubia, watermelon, and Tibish.
- 163 -

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Mekbames</th>
<th>Feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>10.40</td>
<td>15.60</td>
</tr>
<tr>
<td>Dukhun</td>
<td>4.50</td>
<td>6.75</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>2.20</td>
<td>3.30</td>
</tr>
<tr>
<td>Sesame</td>
<td>3.60</td>
<td>5.40</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.20</td>
<td>0.15</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations: 2.5 persons.

- Yields (Kg./Feddan)
  - Dukhun: 54.89
  - Marig/nagad: 95.00
  - Sesame: 49.10
  - Groundnut: 95.00

7.2.1.3. Livestock Raising

i) Present Household Ownership

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goats</td>
<td>9.10</td>
</tr>
<tr>
<td>Sheep</td>
<td>3.10</td>
</tr>
<tr>
<td>Cattle</td>
<td>0.50</td>
</tr>
<tr>
<td>Donkeys</td>
<td>0.50</td>
</tr>
<tr>
<td>Camels</td>
<td>0.00</td>
</tr>
</tbody>
</table>

ii) Per Cent of Losses 1984/85 drought

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goats</td>
<td>81.08</td>
</tr>
<tr>
<td>Sheep</td>
<td>90.34</td>
</tr>
<tr>
<td>Cattle</td>
<td>97.21</td>
</tr>
<tr>
<td>Donkeys</td>
<td>54.55</td>
</tr>
<tr>
<td>Camels</td>
<td>100.00</td>
</tr>
</tbody>
</table>
7.2.1.4. Gum Production Status
Ceased to give marketable production since 1979.

7.2.1.5. Energy Supply/Fuel wood/Building Material
- Energy local needs : Adequately met
- Small scale fuel wood production, for the market : Practiced.
- Marketed at : El Obeid.

7.2.1.6. Income and Dura Status
- Average household income : Ls. 1878.60
- Amount of dura needed by household
  (Sacks) : 7.50
- Amount produced by household : 7.02
- Amount stored by household : 3.20
- Deficit purchased : 0.00
- Household cash income : 1390
- Value of dura deficit : 0.00
- Cash balance : 1390
- Per capita cash income : 190

7.2.2. Village Level Infra-structure
Village infra-structure is undeveloped. The existing facilities include :-

i) A primary care unit, run by a nurse, and

ii) A hafir excavated 1987, and still uncompleted. The hafir is utilized by the villages indicated in Fig.12.

The village has an approved co-primary school but is not yet built.

For all other services the village depends on El Obeid town which lies within commutable distance.
7.2.3. Experience in Self-help

The village has limited self-help experience. The activities attempted embrace: -
- Building the primary care unit.
- Follow-up of the hafir and school projects with the authorities till they succeeded in approving them.

The above activities were financed from funds raised from sugar rationing.

7.2.4. Response to ILO Proposed Projects

Two projects are proposed for Jebel Kordofan:
- Construction of a new hafir, and
- Establishment of a shelter belt.

The two projects were received well by the community which assured supporting their implementation.

It was estimated that about 200 workers could be raised locally to participate in the programme.

ILO needs to consult with the Regional Rural Water Development Corporation on issues related to the newly constructed hafir. The hafir is not completed yet. The Corporation plans to carry on with its programme next working season.

7.2.5. Priorities for Improving Village Economy

Priority

1: Introduction of animal drawn implements.

ii: Construction of water spreading dykes for agricultural development.
iii: Poultry development.  
iv: Improvement of range and pasture.  
v: Pest control.  
vi: Provision of agricultural credit.  
vii: Use of artificial insemination for improvement of cattle breed.  
viii: Development of handicrafts.  

7.2.6. Proposed Leadership

The village acts as a centre for an ex-village council which embraced 4 other villages. The administrative committee which replaced the village council is comprised of 9 members, 5 from Jebel Kordofan and the rest from the 4 mentioned villages.

The administrative committee is presently the only existing institution in the village, and is suggested to assist in implementing the SFWP. Membership of the administrative committee includes:

1) From Jebel Kordofan

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abu Baker Yaghoub (Sheikh)</td>
<td>48</td>
<td>Primary.</td>
</tr>
<tr>
<td>Naeim Ali Yaghoub (Farmer/merchant)</td>
<td>35</td>
<td>Primary.</td>
</tr>
<tr>
<td>Bedawi Ibrahim (Farmer)</td>
<td>42</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Mohamed Ahmed Mohamed Salih (Farmer)</td>
<td>50</td>
<td>Illiterate.</td>
</tr>
<tr>
<td>Bakri Abdel Rahman (Farmer)</td>
<td>60</td>
<td>Illiterate.</td>
</tr>
</tbody>
</table>

2) From Other Villages

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdallah Ahmed El Doma (Farmer)</td>
<td>50</td>
<td>Illiterate</td>
</tr>
<tr>
<td>El Daw Isa (Farmer)</td>
<td>39</td>
<td>Illiterate</td>
</tr>
<tr>
<td>Mohamed Abdel Rahman Abdalla (Farmer)</td>
<td>42</td>
<td>Illiterate</td>
</tr>
<tr>
<td>El Sherif El Daw (Farmer)</td>
<td>40</td>
<td>Illiterate</td>
</tr>
</tbody>
</table>
7.3. Ban Gadeid

7.3.1. Basic Information

7.3.1.1. Demographic Characteristics

- Site total population : 6820
- Number of households : 850
- Size of household : 7.8

7.3.1.2. Crop Raising

- Type of soil cultivated : Sandy with clay and gerdud attempted.
- Main crops raised : Dukhun, Sesame, Marig/nagad with little groundnut.
- Other crops raised : Okra, Lubia, watermelon, Tibish and Tomatoes.

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Makhamas</th>
<th>Fuddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>7.25</td>
<td>10.88</td>
</tr>
<tr>
<td>Dukhun</td>
<td>3.65</td>
<td>5.48</td>
</tr>
<tr>
<td>Marig/nagad</td>
<td>1.10</td>
<td>1.65</td>
</tr>
<tr>
<td>Sesame</td>
<td>2.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Groundnut</td>
<td>0.50</td>
<td>0.75</td>
</tr>
</tbody>
</table>

- Household members contributing to agricultural operations : 2.6 persons.

- Yield (Kg./fuddan)
  - Dukhun : 69.41
  - Marig/nagad : 106.52
  - Sesame : 74.42
  - Groundnut : 142.22
7.3.1.3. Livestock Raising

i) Present Household ownership

- Goats : 1.30
- Sheep : 1.40
- Cattle : 0.30
- Donkeys : 0.50
- Camels : 0.00

ii) Per cent of Losses 1984/85 drought

- Goats : 59.38
- Sheep : 95.07
- Cattle : 81.25
- Donkeys : 50.00
- Camels : 100.00

7.3.1.4. Gum Production Status

Ceased to give marketable production since 1975.

7.3.1.5. Energy Supply/Fuel wood/Building Material

- Energy local needs : Adequately met.
- Small scale fuel wood production, for the market : Practiced.
- Marketed at : Ban Gadeid - El Obeid.

7.3.1.6. Income and dura Status

- Average household income : Ls. 2263.74
- Amount of dura needed by Household (Sacks) : 9.75
- Amount produced by Household : 5.70
- Amount stored by Household : 0.90
- deficit purchased : 3.15  
- household cash income : Rs. 1850  
- value of durra deficit : 160  
- cash balance : 1690  
- per capita cash income : 220

7.3.2. village level infra-structure

i) education
   - 2 primary boys.  
   - 1 primary girls.  
   - 1 intermediate boys.  
   - 1 intermediate girls.  
   - 3 rhalwas.

ii) health
   - 1 dressing-station.

iii) water supply
   - Mataras  
     Many big diameter open shaft wells (depth, 95-125 ft.) provided for garden irrigation but also utilized for drinking purposes, from which water is sold at village by vendors.
   - A water-yard  
     consisting of one bore-hole, established 1973.

iv) other services
   - Police post.  
   - Prison camp.  
   - Crop protection office.  
   - Forestry office.
- Veterinary clinic.
- A market place with a weekly organized marketing activity.
- A mosque.

7.3.2.1. Envelope Served by Village

Fig. 13 shows that about 24 villages are served by Dan Gadeid. Villages come for water supply, education and the market centre. The site also provides all year employment opportunities in the horticultural gardens where about 107 of these exist, producing vegetables and fruits for El Obsid market.

7.3.3. Experience in Self-help

The community organized self-help to support the following activities:

i) Education
   - Building of class-rooms in primary schools under the education ladder programme.
   - Maintenance of the boys primary school.
   - Aided dormitories to the boys and girls primary schools and the intermediate school, built of local material.

ii) Health
   - Built the dressing-station.

iii) Others
   - Built the mosque outside wall.
- The police station, and
- Contributed 3 thousand pounds to the rectification of the water-yard.

7.3.4. Financing of Activities

Sources of finance include the rate charged on sugar, which in the case of this community is 4 piastres per pound, and subscriptions and donations, organized according to need.

7.3.5. Response to ILO Proposed Programme

The programme suggested for Ben Gedeid consists of:
- Construction of 3 new water spreading dykes for agricultural development.
- Rehabilitation of existing water spreading dyke.
- New veterinary clinic, and
- Establishment of nursery and shelter belt for sand dune stabilization.

The programme was positively received by the community. Related to the dykes proposal, three questions were raised, regarding land rights, the benefits that shall accrue to poor farmers, and whether the new structures shall not affect the present use of Wadi waters for irrigation and domestic supply purposes. All of these questions should be resolved with the community on implementation of the project.
The veterinary clinic is a priority need for this centre, due to the large concentration of livestock all year round. The place is visited by the Harazma cattle nomads during the rainy season, and by the camel nomads (yababish, rawabla, shanabla, etc.) from the northern part of the region, during the dry months.

Regarding the proposed nursery, there is a possibility for co-ordinating this activity with the UNICEF Programme, which already succeeded in establishing a nursery at the centre, run by women.

The number of workers estimated to be available for employment in the SPWF is in the order of 600 persons.

7.3.6. Priorities for Improving Village Economy.

**Priority**

1: Construction of water spreading dykes for agricultural development.
2: Pest control.
4: Provision of agricultural credit.
5: Poultry development.
6: Hashab rehabilitation with shelter belts for sand dune stabilization.
7: Improvement of range and pasture.
8: Development of handicrafts.
9: Improvement of storage facilities.
10: Use of artificial insemination for improvement of cattle breed.
7.3.7. Proposed Leadership

The village is active with many committees responsible for different functions. The list includes:

i) The administrative committee, made of 6 members.
ii) The commodity rationing committee, 9 members.
iii) The education committee, 11 members.
iv) The mosque committee, 11 members.
v) The health committee, 11 members, and
vi) A co-operative committee.

The meeting suggested that the administrative committee may be charged with assisting in the implementation of the SEWP, subject to further consultation with the chairman of the committee who was not present at the meeting. The committee includes the following persons:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Abdel Moneim Abdel Magid (Omda/Merchant - Chairman)</td>
<td>45</td>
<td>Intermediate</td>
</tr>
<tr>
<td>2. Salim Hassen Daleel, Deputy Omda, (Merchant)</td>
<td>35</td>
<td>Secondary</td>
</tr>
<tr>
<td>3. Fedal Bilal, Sheikh (Farmer)</td>
<td>55</td>
<td>Illiterate</td>
</tr>
<tr>
<td>4. Salih Mohamed Hussein, Sheikh (Farmer)</td>
<td>40</td>
<td>Primary</td>
</tr>
</tbody>
</table>
CHAPTER VIII

RECOMMENDED INDEPTH SOCIO-ECONOMIC STUDIES
CHAPTER VIII

RECOMMENDED INDEPTH SOCIO-ECONOMIC STUDIES

8.1. Introduction

This is a short chapter on further socio-economic studies in the project area, recommended on the findings of the present survey. The fields to be covered are proposed on two considerations, to illuminate some of the findings reached in this document, and to explore new areas seen as essential to support implementing an integrated rural development programme in the project area.

The need for these surveys is founded on the assumption that the proposed programme, as it stands, is addressing certain development facets of priority to the chosen communities. The present package is taken as a beginning of a more concerted one, which shall gradually built-up, adding new components in time through the co-operation of the implementing agency with the targetted communities.

There is much to be done in the area of developing village economic bases, through improving and diversifying production and raising household income, on the assumption that these changes shall lead to higher revenues, and enable communities and local councils to
spend on village level infra-structure. The recommended indepth studies are meant to support the overall programme progress. The areas to be addressed include the following ones.

8.2. Crop Raising

The results obtained from the survey indicate clearly that crop production levels are generally poor and the return to the farmer is consequently low. This is attributed to many factors, natural, agronomic and socio-economic. Excluding rainfall variability, it was found within the sample studied that many farmers do better than others in the same eco-units examined. Without going for more innovated inputs or more improved farm practices, which require design and testing of special programmes, such farmers who manage to strike higher levels of production may provide answers, as to what are the best conditions under which the production systems of this dry farming area perform.

Accordingly it is recommended that a panel of farmers who may be labelled as "progressive" ones or better producing cases may be annually selected and closely studied to find out how they did it. The results obtained shall definitely increase our knowledge of the most appropriate conditions under which
crop farming systems work and the kind of packages required founded on current ethno-technological practices.

8.3. Pest Control

Of all the variables affecting production levels in the area is the high loss of crops caused annually by crop pests and diseases. Taking all other factors the same, if the damage resulting from pests and diseases is minimized, farmers will achieve better production in any average year. The serious effect of crop pests and diseases reflected in the size of loss incurred on the farmer, single out this issue to be one of the major findings of the survey.

It seems that for quite a time this factor has been neglected or overlooked in the development approaches aimed at improving crop productivity under dry-farming systems. Current ideas are emphasising input packages that may be labelled as "outsiders" to the traditional production system e.g. improved seeds, credit, storage, better marketing facilities etc. with less efforts devoted to increasing what may be potentially harvested from the farmers' field without adding much "outside" effort.
It may be safely estimated that about one third of the potential harvest of the farmer is annually taken away by crop pests and diseases, and because of this felt loss, pest control came as the number one priority of the farmer for improving production. How to make crop protection a farmers' technology is an essential area of development, recommended for further in-depth study.

6.4. Livestock Raising

Prior to 1984/85 drought, livestock raising contributed substantially to the household economy with goats, donkeys, and cattle as the main animals raised. Of these, the first two are suited to local conditions, while cattle needs special handling if it is to be maintained in the project area, since it survives within a specific grazing range from water sources, approximately 12 km.

Livestock raising has a good potential for improving the local economy, besides the nutritional value it contributes to the population diet. It is recommended that more studies be carried out in this area with the objective of arriving at the most suited systems for improving this type of economy.
8.5. **Farmer's Income Savings and Expenditure**

The survey revealed that farmers have more than one source of income, however, incomes are unstable and unpredictable. Often a large group in the population ends up earning nothing from their cropping efforts, yet they manage to survive from one year to another.

Income levels are also variant and farmers may be grouped under 4 categories: merchant farmers with higher incomes, farmers running other businesses and in government service who have other supporting means, average farmers who depend on the return from farming cultivating sizeable areas, and poor ones who cultivate a small acreage and sell part of their labour to others. Linked to the farming activity are earnings from livestock raising, charcoal and fuel wood selling and employment inside and outside the area, with the latter two mostly practiced by the average and poor categories of farmers.

Income levels generate different patterns of saving, expenditure and investment. Assessing the financial situation of the household and the strategies adopted by the farmer in this respect, shall reveal the prospects of farmers' contribution in improving the
village economy. Studies in this area could best be approached through case investigation. It is recommended that a stratified sample of households covering the 4 above categories be investigated for this purpose.

8.6. A Closer look at the Infrastructure of Central Places

The village level infrastructure of the 3 central places, Abu Haraz, Kazzgil and Dan Gadeid (and may be in future Khor Taghat) needs to be studied in more detail. Due to time shortage, the present survey just furnished an inventory of the facilities which exist, without giving information on the capacities of these facilities, as it was provided for the other 11 sites. It is thought essential that this gap be bridged by collecting information on services capacities of the 4 centres.

8.7. A Staged Prioritization of Sites Development

The accounts on District and Rural Councils status and performance revealed clearly that initiating, planning and implementing development falls within the jurisdictions of these two administrative units. Lack of financial and technical sources stood against
realizing these objectives. Councils authorities and local communities are not short of identifying development areas that may yield immediate benefits to target groups.

The implementation of the SPWF shall open avenues of cooperation with the councils and the communities. It is recommended that while implementing the package presently identified, an inventory of area priorities of development be attempted followed by site investigations for project programming. In this way ILO shall effectively address the basic development gap in the work of the District and the Rural Council.
ANNEXES
ANNEX (1)

Three Master Sheets, handed over to ILO Office, Khartoum for Production of copies
ANNEX (II)

Study Itinerary

I) Village Visits

- Khor Tagqat, (meeting some of the Rural Council Local Leadership)................. June, 24th.

1. El Harmadiya................................. 26
2. Jebel Kordofan.................................. 27
3. Ban Gadeid..................................... 28
4. Umm Ramad.................................... 29
5. Abu Haraz................................. 30
6. Abderbein................................. 30
7. Umm Arada..................................... July, 1st.
8. Geibat........................................ 2
9. El Birka Ab-Janjara......................... 2
10. Kazgeil....................................... 3
11. Abu Simun.................................... 4
12. Fangoga....................................... 5
13. Umm Usheira............................... 6

II) List of Officials Consulted on Project Proposals

Sayed :

1. Mohamed Ali El Mardi,
   Governor, Kordofan Region.

2. Ali Gamma Abdalla,
   Secretary General, Kordofan Region Government.

3. Hassan Gibril El Zubeir,
   First Executive Officer, El Obeid District.

4. Mohamed Nur,
   Executive Officer, Khor Tagqat Rural Council.

5. Zein El Abdein Mahgoub,
   Executive Officer, Abu Haraz Rural Council.

6. Hassan Ismail Zariba,
   Executive Officer, Kazgeil Rural Council.

7. Ismail Abdel Tam Suliman,
   Chief Accountant, Kazgeil Rural Council.
8. Omer Izat,
   Director, Rural Water Corporation, El Obeid.

9. Adam Ahmed Idris,
   Assistant Director, Rural Water Corporation, El Obeid

10. El Rasheed Ahmed El Shcikh,
    Director, Animal Resources.

11. Khalid Abdalla Shams,
    Director, Natural Resources.

12. Malik Abdel Rahman,
    Director, Soil Conservation.

13. Adam Abdalla Hamdook,
    Planning Unit.
BIBLIOGRAPHY
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Dabour, M.A.M.,
Peoples' Councils as Instruments of Regional Planning
In the Sudan, A Thesis submitted for Ph.D., Graduate
College, University of Khartoum, 1984.

El Sammari, M.C.,
An Inventory of Existing Service Facilities by Rural
Council Kordofan Province. The Socio-Economic Section,

El Sammari, M.C., (ed),
Kordofan Rehabilitation Development Strategy, Institute
of Environmental Studies, University of Khartoum and
the Government of Kordofan Region, Final Report,
Khartoum, June 1986.

International Labour Office, Democratic Republic of Sudan,
Proposals for a Labour-Intensive Works Programme
El Obeid District Kordofan Region, September, 1986.

Ministry of Local Government,
People's Local Government Act, 1971 (in Arabic)

Technoserve, Inc.,
Koreig Credit Component, El Obeid Baseline Survey,
(Draft Copy), 1987.

UNDP-Government of the Sudan - Interagency Project
Identification Mission,
Towards Sustained Rural Development in the Sudan,