The Hadendowa: Pastoralism and problems of sedentarisation

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Doctor of Philosophy

in the University of Hull

by

Hassan Mohammed Salih B.Sc.(Hons), M.Sc.

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## CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Historical Background</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Tribal Structure and Territorial System</td>
<td>38</td>
</tr>
<tr>
<td>3</td>
<td>Ecology and Adaptation</td>
<td>66</td>
</tr>
<tr>
<td>4</td>
<td>The Territorial Rights and Interpopulation Relations in the Region</td>
<td>96</td>
</tr>
<tr>
<td>5</td>
<td>Household Organization</td>
<td>124</td>
</tr>
<tr>
<td>6</td>
<td>The Development of the Gash Delta Scheme</td>
<td>161</td>
</tr>
<tr>
<td>7</td>
<td>The Problems of Agricultural Development in the Gash Scheme</td>
<td>188</td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
<td>209</td>
</tr>
</tbody>
</table>

**APPENDIX**

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>The Gash Delta Lands Proclamation 1918</td>
<td>214</td>
</tr>
<tr>
<td>II</td>
<td>The Concession Agreement between the Sudan Government and the Kassala Cotton Company 27th February, 1923</td>
<td>218</td>
</tr>
<tr>
<td>III</td>
<td>Selection from the most current Hadendowa proverbs</td>
<td>230</td>
</tr>
<tr>
<td>IV</td>
<td>Some Hadendowa poetry about cattle</td>
<td>237</td>
</tr>
<tr>
<td>APPENDIX V</td>
<td>The Omodiyas of the Hadendowa Nazirate</td>
<td>241</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td></td>
<td>244</td>
</tr>
</tbody>
</table>
### List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Average rainfall in the Gash Delta 1962-1972</td>
</tr>
<tr>
<td>2</td>
<td>Monthly rainfall in the Gash Delta during 1971</td>
</tr>
<tr>
<td>3</td>
<td>Estimates of Hadendowa Animal Wealth</td>
</tr>
<tr>
<td>4</td>
<td>Income from dom-nuts</td>
</tr>
<tr>
<td>5</td>
<td>Territorial Distribution of Hadendowa maximal lineages</td>
</tr>
<tr>
<td>6</td>
<td>Average individual ownership of animals inside and outside the Delta</td>
</tr>
<tr>
<td>7</td>
<td>Household composition in the Amrai diwāb</td>
</tr>
<tr>
<td>8</td>
<td>The relationship of the male tent-head to the female owner of the tent</td>
</tr>
<tr>
<td>9</td>
<td>Cases of animal thefts, injuries and homicides among the Hadendowa in the Gash Delta during 1969/70</td>
</tr>
<tr>
<td>10</td>
<td>The Composition of herding groups</td>
</tr>
<tr>
<td>11</td>
<td>The distribution of marriage in the Amrai diwāb, 1972</td>
</tr>
<tr>
<td>12</td>
<td>The distribution of tenancies in the Gash Delta</td>
</tr>
<tr>
<td>13</td>
<td>The total income from cotton during the period 1944/63, and its distribution</td>
</tr>
<tr>
<td>14</td>
<td>The gradual increase of castor cultivation</td>
</tr>
<tr>
<td>15</td>
<td>The decline in the production and income of castor</td>
</tr>
<tr>
<td>16</td>
<td>The volume and duration of the Gash flood and the total irrigated area during twenty years</td>
</tr>
<tr>
<td>17</td>
<td>The size of the agricultural sheikhs' private plots in relation to the size of the diwāb's allotment</td>
</tr>
<tr>
<td>18</td>
<td>The number of agricultural sheikhs and the size of cultivated area on each canal</td>
</tr>
<tr>
<td>19</td>
<td>Agricultural loans for 1972/73</td>
</tr>
<tr>
<td>20</td>
<td>Average tenants' labour inputs per feddan of castor</td>
</tr>
<tr>
<td>21</td>
<td>Profit and loss on castor and durra under two different sizes of tenancies with different percentages of labour contributed by the tenant in 1964</td>
</tr>
</tbody>
</table>
List of Diagrams

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>15</td>
</tr>
<tr>
<td>II</td>
<td>16</td>
</tr>
<tr>
<td>III</td>
<td>20</td>
</tr>
<tr>
<td>IV</td>
<td>22</td>
</tr>
<tr>
<td>V</td>
<td>28</td>
</tr>
<tr>
<td>VI</td>
<td>39(a)</td>
</tr>
<tr>
<td>VII</td>
<td>47(a)</td>
</tr>
<tr>
<td>VIII</td>
<td>57(a)</td>
</tr>
<tr>
<td>IX</td>
<td>58(a)</td>
</tr>
<tr>
<td>X</td>
<td>154</td>
</tr>
<tr>
<td>XI</td>
<td>155</td>
</tr>
<tr>
<td>XII</td>
<td>156</td>
</tr>
</tbody>
</table>

Maps

<table>
<thead>
<tr>
<th>Map</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>v</td>
</tr>
<tr>
<td>2</td>
<td>vi</td>
</tr>
<tr>
<td>3</td>
<td>vii</td>
</tr>
<tr>
<td>4</td>
<td>viii</td>
</tr>
<tr>
<td>5</td>
<td>ix</td>
</tr>
</tbody>
</table>
HADENDOWA TERRITORY
showing the vegetation

KEY
- Acaia Mellifera Thornland
- Desert
- Semi Desert
- Acaia Glaucoaphyla Aetbaica Scrub
- Montane Vegetation
- Railway lines
- International boundary
THE GASH DELTA

KEY

- Water courses
- Khors
- Dissed channels
- Oases
- Agricultural stations
- Hafirs
- WP
- Water points
- WC
- Well centres
- SR
- Sudan Railways

MAP 2

KASSALA

Haboba

Mokram Mt.

Sudan Railway
Sketch map of the Aamrai Fariq
SKETCH MAP OF THE HADENDOWA COUNTRY

KEY

- Rivers
- Khors
- Wells
- Motor roads
- Railways
- Frontiers
- Tribal boundaries
- Major tribal
- Mountain

Miles SCALE Barentu
10 5 0 10 20 30 40 50
HADENDOWA KHATS
and distribution of important watering-centres

MAP 5

KEY

- Existing Hafir
- Existing Surface Well Centres
- Railway lines
- International boundary
ACKNOWLEDGEMENTS

This thesis is based on fieldwork carried out among the Hadendowa, one of the Beja tribes in north eastern Sudan, during two periods. My first contact with the Hadendowa was in 1968 when I stayed in the field from June 1968 to November 1969. Then I went back from July to December 1972. I am grateful to the Research Committee of the University of Khartoum for financing my fieldwork in the Sudan and my stay at Hull University for writing this thesis.

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Finally I thank my wife Suad, for standing the pressure and constraints during the writing period. I appreciate that she sacrificed her own work for mine.
INTRODUCTION

The Hadendowa are the largest tribe of the Beja population, inhabiting a vast area which extends from south of Port Sudan, in the north, to Kassala town in the south. The purpose of this study is to give a descriptive analysis of the social organization of the Hadendowa and their pastoral mode of life. The understanding of the present tribal structure and of its implication for recent economic developments requires a historical background. So the thesis starts with a historical discussion concerning the foundation of different Beja tribes generally, and the Hadendowa in particular. As there is no certainty about the early history of the region, it is difficult to trace the present Beja to an original population stock or give a fixed date for the appearance of their individual tribes. However, there are some assumptions based on controversial historical writings, linguistical classifications, oral traditions and tribal genealogies. The modern Beja tribes claim Arab ancestries, assuming genealogical connections with early Arab personalities who introduced Islam into the region. But I explain that such genealogies are fictitious, constructed purposely for social prestige and are not accurate records of Beja descent lines. However, these genealogies are important for their sociological significance in the present circumstances.

The peculiarity of the Hadendowa territorial system has obstructed continuously the plans for the development of agriculture in the Gash Delta. This territorial system is closely related to their agnatic kinship structure. The core of this kinship is the diwāb with a genealogical depth varying from five to seven generations. This agnatic kinship group is one of other similar groups which are all connected to one ancestor to form a lineage. The Hadendowa tribe consists of thirteen of these lineages. Hadendowa territory is divided
among their numerous diwābs, and rights in each plot are held jointly by the members of one diwāb. In the southern part, particularly the Gash Delta, these rights are even more crucial. Here, the diwāb is always a territorial cluster exploiting a particular area of land. On the other hand, the northern part is arid with scanty pasture and few sources of water; so the Hadendowa here live and move in small family groups. Despite the fact that their ecology forces territorial dispersion, ties of kinship still remain very strong among the hadendowa especially in defence of territorial rights. Thus mutual aid extends beyond the tent clusters of the same diwāb to embrace all the collateral diwābs in a lineage.

Though rights in land are inherited patrilinearly and women are excluded from such inheritance, in every tribal unit from the diwāb to the tribe, there are some individuals and groups who have obtained these rights through female links and matrilocal residence. Therefore it is necessary to consider both rules of patrilineal descent and matrilocal residence in order to understand Hadendowa social organization. These two principles are interdependent and they prevail in social life as complementary frameworks. Indeed, social organization emerges from the interaction of individuals and groups within the two frameworks of agnatic kinship and matrilocal residence. That is why the historians constantly refer to the Beja as a matrilineal society. This assumption on the part of historians is a misunderstanding of the importance of matrilocal residential ties and marriage alliance.

The position of the Hadendowa is geographically central, and they are surrounded by other Beja and non-Beja pastoral population. These various groups are able to retain usufruct rights in Hadendowa pastoral land. But more recently, the development of the Gash Delta agricultural scheme has drawn large numbers from mixed ethnic groups. Consequently
this creates constant pressure on Hadendowa country. The disputes between the Hadendowa and the riverain population of the Delta have been jeopardising the promotion of the scheme for a long time. Until now no satisfactory solution has been found to eradicate these disputes.

The tribal structure of the Hadendowa with its territorial system, their unstable environment and the prevailing administrative and economic circumstances in the region are important background factors which militate against sedentarization. The failure of the Gash Scheme reveals the irrationality of the plans for the settlement in the area. The analysis of the interdependent factors underlying the resistance of Hadendowa to sedentarization can be useful not only in understanding current mistakes, but also in planning similar schemes attempting to make sedentary cultivators of nomadic peoples.
CHAPTER 1

HISTORICAL BACKGROUND

The Arab influence in Beja country

The Hadendowa are one of the major Beja tribes of north-eastern Sudan. The Beja are the largest, and perhaps the most ancient, ethnic group in the region. They are pastoralists inhabiting an area of about 110,000 square miles, with a population estimated by Kassala provincial authorities in 1970 to number about 620,000. Their vast territory, which amounts to one-tenth of the total area of the Sudan, extends along the Red Sea between the boundary of the Sudan with Egypt in the north, and the Sudanese-Ethiopian frontier in the south. From a narrow coastal strip, it stretches westwards over the Red Sea Hills to cover the Atbai plains sloping down towards the Nile Valley. These plains extend up to the river Atbara which forms the south-western boundary of the Beja traditional home.

Today, the Beja population consists of five principal tribes which are: the Hadendowa, the Bishariyyīn, the Amar'ar, the Beni Amer and the Halenga. Beside these there are several minor tribes like the Arteiga, Ashrāf, Segoīab, Melhitkīnāb, Ḥābāb, Kimīlāb and Shāiyāb. Each one of the Beja tribes claims an independent genealogy which distinguishes it as a tribal entity, but all of them are linked by a common language: Tu-bedawie. The Hadendowa, the Bishariyyīn and the Amar'ar constitute together the majority of the Tu-bedawie-speaking population; while the Beni Amer are divided into a Tigre'-speaking group and a Tu-bedawie-speaking group. Nevertheless, certain sections of the Beni Amer are

Some linguists are of the opinion that Tu-bedawie can be classified as "Cushitic" which is a branch of a wider family of languages labelled Afro-Asiatic or sometimes called Hamito-Semitic. In addition to the Cushitic, this family includes four other branches: Ancient Egyptian, Chad, Semitic and Berber. Tigre' is classified linguistically with the Semitic group. There are today more than forty living Cushitic languages spreading from north-eastern Sudan into Ethiopia and Somalia. Probably they extend further south as far as Tanzania to include the Iraqu language. However, these Cushitic languages do not form one continuous geographical area as they are cut off by Semitic languages, especially in Ethiopia.

Although the image of the contemporary Beja among outsiders is one of a closed population shunning contact with the rest of the world, there has been a constant flow of migrants into their country for a considerable period of time back in history. There are some historical sources which assume that the indigenous inhabitants of the Red Sea Hills were in contact with, and known to, the Ancient Egyptians, Axumites and Pre-Islamic Arabs. Those early immigrants came either to exploit the fields of gold mining for which the region was famous in the past, or for grazing and trade. Probably, the Pharaohs started their expeditions for the exploration of the gold mines in the northern Red Sea Hills from as early as 2754 B.C. during the fifth Dynasty. They also sent their caravans further south to bring

ivory, feathers and stones which were used for decoration in temples and royal palaces. When the Ptolemies came to rule in Egypt about 300 B.C. they extended their power southwards to control trade routes and the gold mining area. The historians suggest that the Ptolemies succeeded in establishing a number of ports along the Red Sea coast and employed Greek mercenaries for the administration of these ports. Besides that they built several garrisons to secure their trade in the region.¹ The caravans of the Ptolemies penetrated deeper into Beja country hunting elephants and other wild animals which might have been abundant during those early days in the sites of the present Deltas of the Gash and Baraka. Further, the historians believe that many of the Beja adopted the State religion of Isis and Serapis; and they consider that an evidence of close contacts between the Beja and the Ptolemies.²

Also, the trade in gold, gum, ivory, feathers and grain was possibly an important factor in developing relationship between the populations on either side of the Red Sea. Presumably, there were some Arabs who stopped in Beja country on their way to the interior, as has been reported: "In the fifth century B.C. some southern Arabians settled in the Red Sea islands and then spread along the shores of East Africa where they established camel-routes by which they could reach the interior."³ However, it is more likely that a number of Arab traders settled permanently along the western coast of the Red Sea as well as in other trading centres on the caravan routes, and in consequence they most probably intermarried with the local people and became assimilated to them. There are variant emphases by the historians indicating that the major pre-Islamic Arab migration to the Western coast of the Red Sea was by individual families or larger groups

¹ op.cit., pp. 36-37.
² ibid.
from Himyarite tribes, from Hadramaut in Southern Arabia. These earliest Arab migrants had settled among the Beja in Atbai' and Sinkat Hills by the end of the sixth century A.D. Perhaps they were the ancestors of the people who came to be known later on as Hadariba, which may be Tu-bedawie for the Arabic word Hadarima i.e. the inhabitants of Hadramaut.

Apparently, the Hadariba might have intermarried extensively with the original inhabitants among whom they settled. Partly because of this intermarriage, and their strong economic position, the Hadariba were able to establish themselves as a dominant political power in the region. The historians suggest that the Hadariba might have subjected, and ruled over, a number of indigenous Beja groups, particularly over a group known by the name Zanafij. Ibn sulaym al-Aswānī, who was a Fatimid emissary to Nubia about 975, accounted for the sovereignty of the Hadariba over the Zanafij when he said that, "Among them (Hadariba) are another people, the Zanafij more numerous than the Hadariba, but subject to them. They act as guards and supply the Hadariba with cattle. Every chief of the Hadariba has among his people a group of the Zanafij who are like slaves whom they inherit; though the Zanafij were dominant in the past."

But in spite of this assumed supremacy of the Hadariba over their indigenous subjects, all the historical sources conclude that the Hadariba gradually lost their Arab cultural identity and language. This might be as a result of permanent residence and interaction with the Beja. It seems that by the late ninth or early tenth century the Hadaribawere completely absorbed into the local population to the extent that both Al-Yaqūbi and Ibn Hawgal, two Arab scholars writing about that period, classified them as

4. See Hasan, Y.F., op.cit., p.11.
a Beja tribe. Further, Paul also remarks: "But while they established a political and social autocracy in the Atbai, the Hadareb at the same time lost almost completely their racial individuality in adoption of Beja language, habits and religion which at that time was a very nominal sort of christianity."¹

Later on, the Arab intrusion into Beja country continued after the advent of Islam in the seventh century A.D. Although the early Muslim penetration was by individual traders or small groups of pastoralists and had not yet taken the form of a major invasion, such movements were not always peaceful and clashes were reported to have occurred between the Muslims and the Beja.² Despite the scarcity of information about the contacts between the Beja and the Arabs during the early days of Islam, there is at least one piece of archaeological evidence from tombstones in Khūr Nubt, to the west of Sinkāt, indicating that a number of Muslim Arabs might have established a permanent residence among the Beja at a very early stage in the Islamic era. The inscriptions on these tombstones show that the site could be the earliest Muslim Arab remains in the Sudan, and it is traced back to the eighth century A.D.³

However, we have to bear in mind the fact that all these historical sources, referring whether to contacts between the Beja and pre-Islamic Arabs, or to early Muslim Arabs, are obscure and controversial. So the whole argument, by the historians, about early Arab penetration and influence in Beja country remains largely conjectural and speculative. Though we have rather more reliable information on the Beja from the medieval Arab writers, not all of these writers had first-hand information

¹ Paul, A. _op.cit._, 1959, p.75.
² Hasan, Y.F. _op.cit._, p.31.
³ Ibid., pp.61-63.
on the Beja and much of their material lacked systematic investigation. However, the medieval Arabic writings imply that the main influx of Arab immigrants into Beja country actually took place after the Muslims conquered Egypt in 642 A.D. Following the occupation of Egypt, the Arabs carried out a series of punitive expeditions against the aggressive Beja who were at that time raiding Upper Egypt and attacking Muslim settlements in the Nile Valley. Meanwhile political instability and the revival of old tribal enmities among the Arabs in Egypt induced large numbers of discontented tribes to move further south looking for pasturage and new areas where they would be able to establish themselves as independent political powers. As a result, some of them advanced into the Red Sea Hills, re-opening the old gold and emerald mines; and so from then onwards entered into frequent and direct contact with the Beja.\(^1\)

The Arab expansion and mining activities were frequently interrupted by the Beja who opposed Muslim infiltration from the start. In 831 A.D.\(^2\) a treaty was concluded between the Muslims and the Beja to protect the Arab settlers and traders in the region. Further, it seems that those early contacts resulted in conversion of some Beja to Islam; so the treaty gave Muslim officials the right to collect Zakat, tax, from those who adopted Islam. It also obliged the Beja not to destroy mosques which the Muslims had built in the area. But the Beja breached the terms of this treaty in 854\(^3\) and continued their raids on the Muslims in the mining centres. Then in 855, the Arabs sent from Egypt the largest and best organised expedition to the region in retaliation for a severe Beja attack on the miners and their families.\(^4\) This time the Arabs succeeded in

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3. Ibid., p.50.
reducing the power of the Beja and consolidated their control over the mining centres. The Muslim conquest of eastern Sudan led to an increase in mining activities and stimulated further Arab expansion and settlement in Beja country. The flow of the Arabs increased gradually and the migrants were coming from different tribes. Nearly every Arab tribe in Egypt was represented, either by individuals or, whole sections, in the "land of the mines".\footnote{1} However, the majority of the miners during this period were drawn largely from the Rabia, Juhayna, Mudar, Yaman and Baliyy tribes.

Subsequently, competition over gold mines, as well as over political power and pastures created more hostility and dissension among these heterogeneous groups of Arab tribes in Beja country. Therefore each one of them attempted to secure it's economic and political position by entering into a series of marriage alliances with a number of indigenous families or sections who would support it against other similar competing tribes. Al-Mas'ūdi referred to such alliances saying that: "Men from Rabi'a took wives from among the daughters of Beja leaders and consequently their sons became the Beja chiefs because inheritance among the Beja was matrilineal. Rabi'a was then supported by the Beja against their hostile neighbours and rivals from Qaḥṭān and against other tribes from Mudar Ibn Niyar who settled in these lands."\footnote{2}

Apparently several sections of Arab tribes took up residence in the mining area and eventually merged themselves with the Beja through inter-marriage. Certainly such intimate relations created a relative stability which helped in increasing the flow of Arabs into the region. Many of these came to participate in the flourishing trade of slaves, ostrich feathers, grain, ivory, gold and the famous Beja riding camels. Subsequently,

\footnote{1}{Hasan, Y.F., \textit{op.cit.}, p.52.}
\footnote{2}{See: Abdīn, Abd al-Magīd, \textit{op.cit.}, p. 59.}
the original inhabitants of the Red Sea Hills passed through successive periods of miscegenation and intermingling with various Arab tribes. Therefore it is most probable that the main process of the conversion of the Beja to Islam actually started after the arrival and settlement of the Arabs from Egypt. Following that there began also the formation of the nucleus of the modern Beja tribes which emerged with their present tribal identities in a gradual process of intermarriage with the Arabs.

The Matrilineality of the Beja

Curiously, several contemporary historians, following and interpreting medieval Arab writers, take the ascendancy of Arabs to power in the region as evidence of matrilineal succession which they attribute to the indigenous Beja. Paul holds this view while he is accounting for the emergence of the Hadāriba as a dominant powerful group in the area. "Then by reason of the matrilineal system of succession still practised among the Beja their sons succeeded to tribal leadership, and by virtue of this and a superior culture were able to establish themselves as a dominant aristocracy, partly Arab in blood, ruling over a very much larger number of indigenous Beja Serfs."¹

Thus the historian is of the opinion that the Arabs married Beja women then their descendants rose to power and dominated the Beja due to their cultural influence and to the Beja's custom by which the sister's son inherited from his mother's brother.

Despite this conventional historical argument, I believe there is not sufficient evidence to label the indigenous Beja as a true matrilineal society. The historians have taken only one aspect of the assumed matrilineal system, namely succession to political leadership, and isolated this aspect as the basis for their proposition. They do not give us any further information.

¹ Paul, A., op. cit., 1959, p. 75.
about other attributes of the matrilineal system, such as patterns of marriage, rules of residence, the manner in which genealogies are reckoned, transmission of property and the function of unilineal descent as a principle of social organization.

Whether one accepts the assumption that the Beja were once matrilineal or rejects it, I would suggest that matrilineality has not been the main factor in the Arab rise to leadership among the Beja. This is because unilineality is not the only aspect of succession: in true matrilineal societies succession to office can follow a patrilateral rather than a matrilateral link. Likewise in patrilineal societies, succession may ultimately depend on the position of the mother in the polygamous family. Unilineal relations are therefore one aspect of the 'politics of succession'.

Moreover, although the historians speak of marriage alliance between the Arabs and the Beja, they have constantly neglected the importance of this alliance in relation to political leadership. Recent kinship studies in Social Anthropology have shown that marriage is not only a relation between individuals, but it is also an alliance and incorporation between two groups. Leach points out: "A marriage creates an alliance between two groups, A and B. The children of the marriage may be related to either or both of these groups by incorporation, either permanent or partial, but they can also be related to either or both groups by virtue of the marriage alliance itself."

If we accept this view of marriage then it will not be necessary to consider the rise of a sister's son to political power as a rule of matrilineal succession. We can give an alternative explanation by regarding such succession to office as a successful result of a series of marriage alliances to maintain and perpetuate relations between different groups.

Therefore, it is reasonable to assume that the Beja gave higher offices in the tribal leadership to their sisters' sons to develop and continue alliances with the Arabs. Accordingly, the relation between mother's brother and sister's son must not be taken in relation to matrilineal descent only, but it can be also a manifestation of the politics of marriage alliance.

Further, Paul assumes that the matrilineal system of succession is still practised among the Beja, but he does not give proof or any contemporary case, to substantiate his assumption. On the contrary, whereas the historical evidence for the matrilineality of the Beja is thin, recent ethnographic data show that the emphasis is always on patrilineality. We shall see later how succession to political and religious leaderships among the Hadendowa is followed constantly along the patrilineal line. Also their kinship system is patterned by preferred patrilateral parallel cousin marriage. However, it is true that the prevailing rules of residence are matrilocal and this is an important feature of the present Beja social organization. In my view, the Beja's supposed matrilineality is a misunderstanding, by the historians, of the significance of these residential ties.

Finally, whether or not it may be true that the modern Beja express agnatic values to a greater degree than their forbears did, the presumed matrilineality of the Beja still remains an unsatisfactory explanation for the Arabs' political prominence. The indisputable fact is that the Arabs penetrated into Beja land as conquerors who imposed themselves on the indigenous population. I have mentioned before that the Arabs succeeded in establishing their hegemony over the mining area, and in consequence played an important role in the economic activities throughout the region. Eventually, they emerged as the major economic and political power among the

local groups, while Islam was gaining influence gradually. Therefore it is more persuasive to suggest that the Arabs might have attained tribal leadership due to these circumstances rather than to try and legitimate their position in terms of descent ideology.

**Tu-bedawie Language**

In spite of the continuous waves of Arab migrants into the Red Sea Hills, and the later Islamisation of the local population, the Beja have succeeded in preserving their own language. Though many Beja individuals have acquired some knowledge of Arabic from the Arab influence in the area over many centuries, Tu-bedawie still retains its position as the dominant tongue among the indigenous population. There are a number of factors which may have contributed to this linguistic persistence in the region. First, the early Arab migrants to Beja country came in small numbers, not large enough to transform the indigenous peoples into an Arabic-speaking population. Rather, the reverse has occurred because these immigrants have been absorbed into the Beja and adopted Tu-bedawie. When the Arab immigrants settled in the area and married Beja women, then subsequently their descendants were brought up among the Beja and continued speaking Tu-bedawie as their first language. Until today such process of assimilation is going on as the children of Beja mothers and non-Beja fathers pick up Tu-bedawie and forget the language of their fathers.

Second, the main process of Arabisation in the Sudan generally has been bound up with the process of Islamisation, as Arabic is the language of "The Koran" and all other Islamic teachings. But Beja country is inhospitable and the ecological conditions have not been favourable for large Muslim Arabs settlements, except in the ports of the Red Sea coast. However, while the influence of Arab culture and language remains largely

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within such commercial centres, the bulk of the Beja population retains its cultural identity far away in the hinterland. Even in mining areas where Arabic could have been more influential, the Arabs did not stay very long. This seems to have been due to continuous Beja raids on the miners, along with an early exhaustion of the gold mines and the outbreak of wars among the miners themselves. Moreover, throughout the region, pastures and water sources are limited and it is difficult for people and animals to endure the aridity of the Red Sea Hills. Thus most of the Arabs who came across the Red Sea might have preferred to proceed towards the Nile. Consequently, the Muslims did not set up as many religious centres, mosques and khalwas, in Beja country as they did in the Nile Valley. Therefore the Beja have not had the same chance to learn Arabic as the Riverains. According to that the majority of them have remained illiterate and this in itself has been an important factor in impeding the spread of the Arabic language among them. Therefore, though the Beja became Islamised, they were not Arabicised i.e. in terms of language. The same process happened to other contemporary Muslim societies in the Sudan like the Nubians and the Fur.

However, the economic development and administrative organization of recent years have brought the Beja into closer contact with other Sudanese, particularly the riverains, and eventually increased the spread of Arabic. More recently, the expansion in education and the growth of the schools in the Sudan have raised a number of literate Beja youths. Nevertheless, despite the apparent increase in the number of bilingual Beja, Arabic has never become dominant among them. Even today, those who speak Arabic frequently pretend that they do not know it. Any one who comes in contact with the Beja can justify such attitude by their natural aloofness and reticence towards outsiders. Thus, the strangers are always forced to learn and speak Tu-bedawie in order to penetrate into the reserved society of the Beja.
The emergence of the Hadendowa:

Though until now there is no historical certainty either about the ethnic origin of the modern Beja or about a possible date for their emergence in their present tribal entities, they persistently claim an Arab ancestry. Today, every Beja tribe wants the honour of being related to one of the early Arab families which settled and introduced Islam in the region. So all of them claim Arab genealogies in an attempt to establish links with certain Islamic personalities. Paul comments on this point saying that, "The majority of the Beja were converted to Islam in the course of the fourteenth and fifteenth centuries, and accordingly found it politic to adopt a proper Arab ancestry." At the present, both the Amarar and the Bishāriyyīn claim descent from Banu Kāhil Arabs, and thus classify themselves as part of the large Kawāhla group in the Sudan. Ibn Battūta, an Arab traveller, who visited the western Red Sea coast in the years 1326, 1332 and 1349, did encounter a group of Banu Kāhil who intermixed with the Beja in the area of the present territories of the Bishāriyyīn and the Amarar. But still the relationship of these two Beja tribes to the Kawāhla lacks historical evidence and it depends entirely on oral genealogies. Further, the Halenga trace their descent back to a section of an Arab tribe called Hawāzin who crossed the Red Sea from Southern Arabia to Ethiopia at the end of the seventh century A.D. They first settled in the Ethiopian Highlands for about two centuries before they moved down following the course of the Gash river until they came to the site of the modern Kassala town. Moreover, among the Beni Amer who include heterogeneous groups of different tribal affiliations, the ruling section, Nābtāb assume a

genealogical link with Al-Abbās, the prophet's paternal uncle, through a famous Ja'aliyyīn section called Shā'adīnāb. Finally, the Hadendowa claim to be Arabs descended from a sherīf who came directly from Arabia and settled in Beja country. They believe that a sherīf by the name of Muhammad Hadāb (diagram I, generation 3ii) came to live in the vicinity of Sawākin where he found another sherīf, Muhammad El Alāwi, (diagram I, generation 2ii) who had already settled among the Beja and married to the daughter of an indigenous Beja king named Shakatail. Muhammad El-Alawi begot a daughter, Hadat (the lioness). Then sherīf Muhammad Hadāb married Hadat, and that marriage is said to have resulted in one son called Ahmed al-Mubārak (diagram I, generation 4i). He was nicknamed Barākwīn which is Tu-bedawie for "fearless" or the 'brave'. Then Barākwīn himself begot seven sons who were alleged to be the progenitors of the modern Hadendowa lineages (as illustrated by diagram II).

There is another version of the Hadendowa genealogies claiming that sherīf Muhammad El-Alāwi came from Hijāz to the neighbourhood of Sawākin, bringing his daughter Fatima, nicknamed Hadat, with him. Then they were followed by his paternal cousin Ahmed al-Mubārak who married Fatima in Beja country. Therefore the Hadendowa assume that they are Arabs by both patrilineal and matrilineal descent. However, this particular version is not widely spread among the Hadendowa; and so the first one is commonly cited in their oral traditions.

Despite their emphasis on agnatic values, the Hadendowa at the present are also proud of their earliest ancestress Hadat after whom the tribe might have been named. Perhaps the word Hadendowa is derived from the combination of Hadat Endiwāb, meaning in Tu-bedawie the family or the House of Hadat.

1. Sherīf (sing) Ashraf (p.1) is a descendant of Ali Abn Abī Talib who was married to the prophet Muhammed's daughter Fatima.
THE FOUNDATION OF HADENDOWA

GENERATION 1 2 3 4 5

SHAKAITAL
(The indigenous Bejaking)

(i)

HADAT

(ii)

SHERIF MOHAMMED EL-ALAWI

(i)

AHMED EL-MUBARK
(BARAKWIN)

(ii)

SHERIF MOHAMMED HADAB
THE ANCESTORS OF THE HADENDOWA MAIN SECTIONS

AHMED EL-MUBARAK (BARAKWAN)

HADAT

BASHIR ABU HAKUL

LOL-LOG (TURKISH)

SAMARA

SAMARAN SECTION

MOHAMED

SHARAB SECTION

MOHAMED (FROM SHUKRA)

SHARRAB SECTION

WAIL HAMAD AB SHUMAR

EMIR SECTION

NEITALI ABU BAHRAI

SAMARANDOWA SECTION

KILAI ABU HAMTS

HAMDAB SECTION

EMIRAT SECTION
Another version of the Hadendowa oral traditions maintains that the etymology of the tribal name is Hadāb Endiāb, by relating it to Sherīf Muhammad Hadāb, Barākwīn's father.

The foregoing discussion shows that the view of the Beja about themselves being of Arab origin is a claim which is based mainly on oral genealogies. The genealogies of this kind are largely fictitious, adopted intentionally for specific social and political purposes, and thus lack satisfactory historical support. So such claims can be evaluated as labels of social classification which represent contemporary social and political circumstances rather than historical reality. When the Arabs attained political, economic and religious domination over the Beja, Arab descent became a sign of high status and superiority, especially with the increasing influence of the Islam. Hence, it became prestigious and reputable for various Beja groups to identify themselves with important Arab migrants and claimed patrilineal connection with them. It has been stated that, "Indeed by virtue of matrilineal inheritance, some of the Beja rulers, at least, were Arabs, and because of these groups the whole set of tribes assumed that Arab lineage."¹

The characteristic features of such genealogies and the limitations of their use, whether for historical accounts or as a method of ethnic classification, have already been clarified and discussed by anthropologists. Professor Cunnison argues, in relation to the tribal genealogies of the Baggara tribes of Western Sudan, "... we have to recognize a genealogy for what it is, and historically a tribal genealogy is, purely and simply, a falsification of the record."² In this case tribal descent lines have been continuously manipulated for personal interests, and adjusted to the

¹ Hasan, Y.F., op.cit., p. 139.
changing tribal relations through different historical phases. Similarly, the genealogies of the Beja are by no means reliable historical records which could be used for determining the origin of the tribes or for providing a chronological basis for their formation as autonomous units.

Though the oral traditions of the Hadendowa do not give an approximate date for the arrival of Barakwin's father at Sawakin or for the emergence of the tribe in its modern genealogical structure, the nucleus of the Hadendowa might have existed since the ninth century A.D. The first reference to the Hadendowa as a tribe or a section of a tribe by name was made by Ibn Hawqal in the ninth century accounting for the population in the neighbourhood of Sawakin. He noted that, "In the vicinity of Sawakin there were tribes butun of Rigbat and Hndyba which were subject to Hadarab. To the latter belonged the following tribes (butun): Arteiga, al-Swtbadawa, al-Hwatma, HadandIwa, al-Njrendawa and al-JnytIka. Al-wahtIka and Ger'ib formed together one tribe (batn). Each batn was divided into nearly 100 subdivisions (fahd)."¹ Apart from this, there is no convincing historical evidence relating to the rise of the Hadendowa as an independent tribal entity, though Ibn Hawqal mentioned them as a part of a larger group: Hndyba. The word Hndyba occurs in some of the present Hadendowa songs and poetry to refer to the Hadendowa tribe. Thus, perhaps either at that time the Hadendowa were still a small tribe or the two words "Hyndyba" and "Hadendiwa" were used interchangeably to refer to the same people, but the writer was not consistent in his classification. Significantly, the Gari'b whom he considered as a tribal section independent from the Hadendowa, today constitute one of the Hadendowa lineages. Among the other names which appear in the text above, the Arteiga is only one which exists today as a minor Beja tribe.

¹. See Zaborski, A., op.cit., pp. 300-301.
More recently, Crawford tried to give an approximate date for the foundation of the Hadendowa by working out the connection of their genealogies with those of the Ashraf. He assumed that the first movement of the Ashraf from Mecca to Sawakin occurred in 1451.\(^1\) Then he considered Sherif Muhammad, the founding ancestor of the present Ashraf group among the Beja, was the earliest Sherif who arrived and settled in Sawakin. According to Crawford, this Sherif married the daughter of Sinaief, an Arteiga notable Sheikh at that time. Then he suggested that the first ancestress of the Hadendowa, Hadat, might be the great-grand-daughter of the above mentioned Sherif, Muhammad. The hypothesis here is to follow the descent line downwards from Sherif Muhammad (1451) allowing thirty years for each generation. Accordingly, Barakwín and Hadat might be dated a little before 1600.\(^2\)

Crawford also used another method to test his hypothesis and to ascertain a possible date for the foundation of the tribe. This time he reckons succession to the Hadendowa leadership upwards from Muhammad Din (1810–40) (Diagram III, generation 10 vi) to Barakwin. Also by allowing thirty years for each generation, Barakwín's death would perhaps be a little after 1600 A.D.\(^3\) Crawford concluded his argument suggesting that, "The arrival of Barakwín's father in Africa from the Hedjaz would then have been about the middle or second half of the 16th century when the Arab immigration was in full swing ..."\(^4\)

But these assumptions of Crawford are incompatible with the oral traditions which I collected during my fieldwork on the history of the

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3. Ibid.
4. Ibid.
SUCCESSION TO THE HADENDOWA POLITICAL LEADERSHIP

GENERATION

1. NEITAIB
2. RUGAIL
3. ISHBADIN MUSA
4. Musa (1700)
5. ABBAKER
6. MAHMOUD MUSA
7. MAHMOUD
8. MOHAMMED
9. IBRAHIM MUSA
10. MUSA
11. AHMED
12. AHMED
13. MOHAMMED
14. EL AMIN

Diagram III
Ashraf in Beja country. The Ashraf are particularly concerned with their
genealogical link with the prophet, through his daughter Fatima. They
believe that such a genealogical link defines them as a superior religious
group separate from other Beja tribes. That is why they preserve an
elaborate pedigree which reckons succession to the religious headship,
nagib, in the patrilineal line. I found a copy of this genealogy at Sinkat
with Sheikh Muhammad Al-amin Sherif who is considered in the area an
authority on the genealogies of the Beja generally, and of the Ashraf in
particular. According to his version, Sherif Muhammad (Diagram IV,
generation 7 ii) married Madina (Diagram IV, generation 7 i), the daughter
of Ali Ibn Budai from Shara'ab/Hadendowa. The Hadendowa genealogies and
traditions ascertain that this marriage occurred seven generations after
Barakwin; and Sinaief (Diagram IV), generation 5 i) was the maternal grand-
father of this woman and not her father as Crawford stated. Hence, the
arrival of the Ashraf's early ancestor coincided with the seventh generation
descended from Barakwin, and presumably that was about 1621 A.D. This
assumption contradicts Crawford's argument which considers the appearance of
the Ashraf to be prior to the arrival of Barakwin's father in Beja land.
Although it is difficult to establish the historical authenticity of the
Ashraf genealogies, the version given above may be the most reasonable and
reliable one. Therefore, I assume that the nucleus of the Hadendowa tribe
would have been formed before the sixteenth century A.D. This assumption
can also be supported by the account of Ibn Hawqal whose text indicated
that the Hadendowa were an established tribal section or a tribe during the
ninth century.

However, the Hadendowa might have emerged as an important tribal power
among the Beja at a later date. The oral traditions always link the rise
of the power of the Hadendowa with the expansion of the Funj in Beja country.
THE FOUNDATION OF ASHRAF AMONG THE BEJA

DIAGRAM IV

GENERATION

BARAKWIN

BASHUK

HAKUL

MADINA

HADAT

MOHAMMED

(ALI (SHARA) BUDAI)

ALI

SINAIEF

From Artiega

ASHRAF

MADINA

SHERIF

MOHAMMED

(From Ga'alin)
It is necessary to mention here that the Funj State might have expanded in Eastern Sudan about 1580,\(^1\) in an attempt to subject the Beja and probably to secure its position along the borders with the Ethiopians. The attempts on the part of the Funj to extend the limits of their authority were only partially successful. Although they succeeded in establishing an administration in the Beni Amer and the Halenga regions, that administration was only nominal and without effective authority over the local people who remained under the authority of their tribal Sheikhs. During that period the Hadendowa were emerging as a powerful band of warriors, occupying a tiny territory on the barren Red Sea Hills near Sinkat. Then it was perhaps at the end of the seventeenth century\(^2\) that they began their expansion Southward in search of better pastures, absorbing and subduing other Beja tribes on the way. They started their struggle by reducing the power of the Hadariba around Sinkat, and driving the Beni Amer out of the Erkowit Mountains, and the Bishariyyin further away to the west of Sinkat and Derudeib regions. Afterwards they continued their thrust southward against the Halenga who were controlling the Gash Delta during those days. The Hadendowa were able to defeat the Halanga and commanded the rich pastures of the Gash Delta. Then they followed their conquests further south to end the influence of the Funj in the region and consolidated their power over other smaller tribes like the Melhitkinab and the Segolab. Also, the Hadendowa extended their control westward as far as Qoz Rejeb on the River Atbara.

It seems that by the beginning of the nineteenth century, the Hadendowa had already emerged as the dominant tribe among the Beja. Burckhardt, who travelled from Shendi to Sawakin in 1814, found the Hadendowa

\(^1\) Paul, A., op.cit., 1954, p. 77.
an established power in the region,\(^1\) with their tribal centre at Filik on the eastern fringes of the Gash Delta. He described Filik as a large encampment consisting of about 150 to 200 tents arranged in a circle around an open area in the middle of a thick forest.\(^2\) The tents were divided into four clusters, each within a separate enclosure of thorn. Such an encampment was known as \textit{dowar}, the Arabic word for encirclement; but the term is not in use among the Hadendowa today, as they use Tu-bedawie word \textit{diwab}.

Burckhardt has left a record indicating that Filik was an important market on the caravan-route between the Nile Valley and Sawakin. He remarks on the population of the region, "The Hadendowa Bedowins, the only inhabitants of Taka seen by me, evidently belong to the same nation as the Bisharein, and all the Eastern Nubians, with whom they have the same features, language, character, and manners. They are the strongest of the four tribes who people Taka, the Melikinab\(^3\) are the weakest. All these people are partly cultivators and partly Bedowins."\(^4\)

Recent History of the Hadendowa

By all accounts, the Hadendowa were the strongest tribe among the Beja at the time of the Egyptian invasion of the Sudan in 1821. Pertinently, they resisted the foreign rule from the very start. The Egyptians failed to establish a permanent civil administration in the Gash Delta, which remained under military occupation from Kassala garrison. While the government authority existed in Kassala town only, the Hadendowa retained much of their tribal autonomy, remaining far away in their isolated hills to avoid the payment of taxes. In fact disputes between the Hadendowa and

3. I believe that Burckhardt is referring here to Melhitkinab.
the government arose continually over taxes which the former never paid regularly. The government frequently sent troops throughout the Gash Delta arresting tribal Sheikhs who refused to collect taxes and suppressing opposition.¹

In spite of that the Hadendowa continued their resistance to the government and tax evasion. In 1840, Ahmed Pasha Abu Widān led an expedition into eastern Sudan in an attempt to subdue the Hadendowa, hoping to collect large tributes from their great herds in order to meet the demand from Egypt for cattle, camels and hides.² Probably also the Egyptians were aiming from that expedition to safeguard their eastern borders with Ethiopia. The expedition travelled from Khartoum to El-Damer, and from there moved eastward along the River Atbara into Beja country. Ahmed Pasha Abu Widān sent for Beja Sheikhs to meet him on the way. Incidentally, Sheikh Awad Musmar, the leader of the Halanga tribe, refused to be summoned to El-Damer. Then Muhammad Din (Diagram III, generation 10 vi), the chief sheikh of the Hadendowa at that time, saw this was an opportunity to crush the power of the Halanga and bring them under his own control. Thus he came to El-Damer pretending loyalty and obedience to the Egyptian Government, hoping that the pasha would supply him with soldiers and arms to end the Halenga opposition. However, Muhammad Din did not give up resistance to the Egyptians, despite his promises of loyalty. Probably his plan was to take revenge on his rivals, the Halenga, get rid of them in order to consolidate Hadendowa control over the whole region, and then to turn back to the question of the Egyptian occupation. Nevertheless, Muhammad Din did not receive the support that he expected from the Pasha, and his plans were failed when the Halenga met and chose

Muhammad Ela, a new leader instead of Awad Musmar. The new Sheikh of the Halenga aligned with the Egyptians and set off to meet Ahmed Pasha at Qoz Rejeb where he persuaded him to settle the troops in Halenga territory. So the government established a military garrison at the site of the present Kassala town to be their official headquarters in Eastern Sudan. The Halenga welcomed the Egyptian presence because it was a chance to relieve them of the Hadendowa pressure.

The Hadendowa did not accept this new turn of events, and in particular objected to seeing their traditional rivals the Halanga gaining the confidence of the Egyptian Government. Thus the Hadendowa leader, Muhammad Din, forgot his supposed loyalty to the Pasha, and hostilities between the Hadendowa and Egyptians began again. Finally, Muhammad Din and his nephew Musa Ibrahim (Diagram III, generation II viii) were arrested in 1841, and both were sent to prison in Khartoum. They remained there for one year when Muhammad Din died and Musa Ibrahim was released to take over the tribal leadership of the Hadendowa.

The resistance of the Hadendowa against the Egyptians became weaker over time, though they were not brought under full government control. They came down to graze in the Gash Delta and then returned to their hills where the troops could not reach them. In a later period of the Turkiya, the government tried to administer the Northern Hadendowa together with the Amarar from Erkowit, which was made both an administrative and military post. In addition to that, the Egyptians established another military post at Tamarein near Durdeib. But there was never consolidated Egyptian control over the Hills Hadendowa. Then there was a conflict between the Egyptian Ruler of Sawakin and Sheikh Musa Ibrahim of the Hadendowa. The conflict

was over some sections of the Hadendowa who fled from Musa Ibrahīm as a result of a feud. These were protected by the Ruler of Sawākin who was interested in them to safeguard the camel routes through the desert between Sawākin and Berber. Sheikh Musa complained many times to the Government in Khartoum. But the Government was supporting the Egyptian Ruler at Sawākin, so it set up territorial boundaries at Adar-Memash, east of Durdeib; defining the administrative authority of Sawākin's Ruler and Sheikh Musa. But Sheikh Musa did not accept this limitation of his territorial power, and continued to exercise his authority beyond these boundaries. Subsequently the Government separated the whole northern Hadendowa and annexed them to the Kimīlab Sheikh who became responsible for the administration of all Beja population around Sawākin. The Hadendowa refused to accept such an arrangement and extended their raids to all military posts in the region. The remained discontent with the Egyptian Rule and continued their opposition until the outbreak of the Mahdiya wars so they were among the first of the Beja tribes to support the Mahdist revolt in Eastern Sudan.

The Mahdist revolt was declared in Eastern Sudan by Osman Digna (Diagram V, generation 10(i)), who visited the Mahdi shortly after the fall of El-ōbeid in 1883. Osman Digna himself is from the Arteiga, but his family has been incorporated into the Hadendowa through a maternal link. He succeeded in gaining the support of Sheikh El-Tāhir El-Majzūb, the head of the Shādhiliya religious order in the Red Sea Hills. Sheikh El-Tāhir recognized Osman Digna as the Mahdi's representative in Beja country. He gathered his followers at Gubab, near Erkowit, in 1883 and urged them to support Osman Digna faithfully in the holy war against the Egyptians. Later on, the Hadendowa achieved great fame under the leadership of Osman Digna, and they became the famous warriors, the "Fuzzy-wuzzies" of Rudyard Kipling.
NOTE: ABDU ALLAH (I) came from Egypt to Suakin during 1532 A.D. as a merchant. Then settled in Suakin.

This genealogy is copied from an Arabic manuscript found with MAHMOUD EL GADI of Amrai Ferrig at Timintai forest.
However, the ostensible cause of the Hadendowa rising against the Egyptians was the swindle of the tribe over a camel contract by the Government in 1883. During that year, the Hadendowa were given the contract for the transport of goods and arms supplies over the caravan-route from Sawakin to Berber at the rate of seven dollars per loaded camel. But later on the Hadendowa received only one dollar per camel instead of the seven which they had been promised. Thus Osman Digna took advantage of the Hadendowa's resentment over this deception, as well as their ingrained dislike of the Egyptians. They supported him enthusiastically in order to carry out raids against the Government posts to compensate for the loss in the transport rates.

Beside that there are several other factors which might have contributed to the encouragement of the Hadendowa to join the revolt. First, Osman Digna, irrespective of his adherence to the Mahdiya, was a fellow tribesman whom the Hadendowa were obliged to defend against external enemies. Significantly, the personal character of Osman Digna helped, to some extent, in the development of this tribal feeling and the spread of the revolt. He was said to have an ability in the mobilization of warriors during attacks and retreats. So his followers thought of him as a true tribal leader. In fact, many of the Hadendowa sections might have been attracted to the Mahdist revolt by the prestige of Osman Digna, especially after his successful attacks and victories on the Government troops in 1884, at El-Teb and Trinkitat. Those early victories, followed by the fall of Sinkat in the same year, increased the confidence of the Hadendowa in the leadership of Osman Digna.

Second, the Mahdist revolt was for the Hadendowa a chance to take revenge on their enemies, both other Beja tribes and the Egyptians. In this context, they were following Osman Digna in a tribal war against Amarar, Bisharīyyīn, Beni Amer, Halanga and Melhitkīnāb the majority of whom supported the Government. This view has been stated by Owen: "The Mahdiya was an opportunity for the tribe to complete their occupation of the Southern territory into which they had been pushing for so long. The Melhitkīnāb had been mopped up by Mustafa Hadal, Osman's wakīl, for siding with the Turks; the Halenga were driven in further on Kassala and Hadendowa Suzerainty established up to Khaṣm el Girba and to some extent northward of Goz Rejeb at the expense of the Bisharin."¹

If this argument is correct, then the reasons for other Beja tribes' stands against the Mahdiya are also clear. The fact that Osman Digna was affiliated to the Hadendowa, and his prestige and success were credited to the Hadendowa tribe, was sufficient to associate his revolt with inter-tribal competition and jealousy. Therefore each one of the other Beja tribes saw its opposition to the Mahdiya as an opposition to the growing power of the Hadendowa under the leadership of Osman Digna.

Furthermore, the struggle of the other Beja tribes against Osman Digna increasingly took on a religious dimension. Prior to the Mahdiya, both Khatmiya and Shadhiliya had tried to extend their influence among the Beja and attract more followers at the expense of each other. Hence, the Khatmiya saw in the adherence of the Shadhiliya followers to Mahdism a religious and a political alliance against them. Thus the Sheikhs of the Khatmiya order at Sawakin and Kassala resisted the Mahdiya and refuted its religious claims. Mohamed Osman El-Mirghani, the head of the Khatmiya at Sawakin, wrote to some of the Beja leaders in 1884,² persuading them to

mobilize their followers and support the government troops against the Mahdists. On this request, Hamad Mahmoud, the Sheikh of the Amara, led his loyal followers and sought the Mahdists until he was arrested and executed by Osman Digna in 1886. At the same time Melhitkinab and Halenga rose up near Kassala town to support the Khatmiya Sheikhs and defend them against the Mahdists. But Mustafa Hadal, Osman Digna's representative at Kassala, took revenge and executed a large number of them.

Meanwhile, the Government made use of these tribal and religious rivalries to gain more support against Osman Digna. Mohamed Osman El-Mirghani was supplied with men and arms to aid him in his struggle against the Mahdists. Although the Mahdist revolt in Eastern Sudan is identified with the Hadendowa as a whole, it had supporters from among other Beja tribes. On the other hand, there were some sections and individuals of the Hadendowa who followed Muhammad Osman El-Mirghani and opposed Osman Digna. These sections based their resistance to the Mahdiya on tribal, or religious, or economic bases. Some of the Hadendowa, particularly Hamdab, Gareib, Emirab and Shara'ab sections, are adherents of Khatmiya with a strong faith in their religious leaders. They opposed the Mahdiya because it contradicted with their religious beliefs. Second, some of the Hadendowa saw that Osman Digna's success favoured his own section and immediate kinsmen. Motivated by tribal jealousy, they tried to break down his growing power; and thus complaints about him reached the Khalifa in Omdurman. Beside that, the Hadendowa living around Sawakin had some economic interest in keeping Government control over the town. Most of these people engaged in trade and camel transport; so they supported the Government because they believed that it alone could secure their continued trade and prosperity.

They helped the Government by continuing to transport arms and ammunition through camel routes; and gained large profits from this trade.

Finally, as the Mahdist State grew more bureaucratic and autocratic, some sections of the Hadendowa began to object more and more to its impositions. The development of the Hadendowa's hostility to the Mahdiya at the end was partly due to their consciousness of free pastoral life and tribal institutions. They have always preferred to keep themselves away from organized administration and the regular payment of taxes. Thus Hamdab/Hadendowa together with two or three other sections switched their allegiance away from Mahdism and stood against Osman Digna when he raised levies on animals in 1886.¹

Further, many of the Hadendowa became less enthusiastic towards the Mahdiya because the Khalifa's policy collided with their plans and expectations, to expand and dominate other Beja tribes. At the beginning, the Hadendowa were the dominant tribal group in Osman Digna's army and they gained prestige by their early adherence to Mahdism. They were hostile to other Beja Mahdists and as they were more favoured by Osman Digna, this situation led to rivalries between the Hadendowa and other groups. There were many complaints to the Khalifa whose policy at that time was to break the major tribal powers. So the Khalifa summoned Sheikh Musa (Diagram III, generation 12 ix), the Nazir of the Hadendowa, with other leading Sheikhs, to Omdurman and arrested them. Then more sections of the Hadendowa, especially Gemilab and Hadalab, revolted against Osman Digna, and they were able to rescue the Nazir who fled to Eritrea.² and remained there until the end of the Mahdiya.

The Mahdiya brought the Hadendowa in touch with many riverain and

Baggara tribes. Osman Digna held together this heterogeneous gathering by force, applying the Shari'a law strictly. But there is evidence that the Hadendowa could not fully accept a sudden change from the tribal life which depended on revenge and conciliation, to the strict rules of Shari'a. Hence certain sections of them were provoked by Osman Digna's neglect of tribal customs in the resolution of conflicts and the settlement of disputes.

It is appropriate here to give one of the tribal stories indicating the situation at that time: "Osman Digna was camping with his army at Tahamyam, when some of the Ashraf from Gebeit accused two of his followers, from Hamdab/Shara'ab, of abducting a slave woman and selling her at Sawakin. Although the Ashraf could not produce any evidence for accusation, Osman Digna executed the two suspected men immediately. This action provoked the whole Shara'ab Section and they deserted Osman Digna's army. Then they moved to Erkowit from where they made contacts with the Government's officials at Sawakin, offering their support against Osman Digna. In return they received Government supplies of arms and food. When Osman Digna moved his camp later on to Erkowit, the Shara'ab attached him and killed some of his men. Then Osman Digna tried to apologize to the Shara'ab, putting the responsibility on the judge who gave the sentence. But the Shara'ab did not accept this apology, and they continued their hostility to him, informing the Government about all his movements and directions."¹

When the Khalifa realized that the strictness of Osman Digna had led to the dispersal of his followers, he requested him to be more moderate and conciliatory. But the Shara'ab section, together with the Hamdab continued their opposition and the leading Hadendowa Mahdists asked the Khalifa to choose a new leader instead of Osman Digna. So the Khalifa sent Abu Garga to the Eastern Sudan in 1887² at head of an army of 10,000 consisting of

¹. This version was given in 1970 by Taha Tahir in Erkowit who was then over 90 years old.
². Shoucair, Naum, op.cit.,p.1083.
Baggara, Danagla and Ja'aliyyin. Abu Garga took over from Ösman Digna as the representative of the Khalifa in Eastern Sudan and responsible for administration, while the leadership of the army was left to Ösman Digna.

However these measures, far from pacifying the Hadendowa, created more acute conflicts, since the Hadendowa were then interacting directly with people whose customs, traditions and language are quite different from their own. So the Hadendowa began to become dissatisfied with conditions of continuous war in which they had lost a great number of their men, e.g., 3,000 were killed in the two battles of Tāmaī and El-Teb only. In addition to that they suffered from the famine of 1886. Thus instead of fulfilling their expectations of expansion and domination over other Beja tribes, the Hadendowa found that their tribal power had been destroyed during the Mahdiya wars. So they began to withdraw their allegiance to Ösman Digna who at the end found himself with little support from the Hadendowa. After the defeat of the Mahdists at the battle of Karari in 1898 Ösman Digna escaped to Warriba Mountains, in eastern part of Hadendowa country. But he was betrayed by a Sheikh from the Gemīlab section, who helped the British troops to arrest him in 1900.¹

After the re-occupation of the Sudan Muhammad Musa (Diagram III, generation 12 ix), who had spent the last days of the Mahdiya at Sawakīn under the protection of the Government, was appointed by the Sudan Government Nazir of the Hadendowa. Although the Nazirate was revived, it did not operate effectively, and the Government was confronted with difficult problems in the administration of the tribe.² The magnitude of such administrative difficulties can be shown by the fact that in the period 1900-1904, four Nazirs succeeded to the office of Nazirate (See diagram III). The first

²: Kassala Files: SCR/66 F. 4/1, "Note on the Hadendowa 1935."
three were dismissed shortly after their appointments because they failed
to carry out their official duties for the maintenance of order and
collection of tribute. All of them continued to be loyal to tribal interests,
favouring their kinsmen and trying to shelter criminals and avoid government
interference in the internal affairs of the tribe. However the fourth Nazir,
Ibrahim Musa (Diagram III, generation 12 xii) remained in office from 1904
to 1927, though he did not show much loyalty to the Government or interest
in his official responsibilities.

Then in 1927, Ibrahim Musa was compelled by the Government to retire
on the grounds of his illness; and Muhammad El-Amín Tirik (Diagram III,
geneneration 13 xiii), a leading Omda and a notable of the Hadendowa, was
appointed Nazir. This last appointment coincided with the establishment of
cotton cultivation in the Gash Delta, and the Sudan Government started to
give more attention to the Hadendowa because of the expected economic and
social development in the Delta. The new Nazir turned out to be both firm
and conciliatory with his tribesmen. So he gained their support, and at
the same time the confidence of the Government, the matter which helped him
to remain in office until his death in 1958. He proved to be successful in
collecting animal-tax and restoring order and security throughout Hadendowa
territory. Significantly, the growing economic importance of the Gash scheme
had increased and consolidated the power of the Hadendow Nazir who was given
territorial jurisdiction over all the tenants in the scheme irrespective
of their tribal adherence. Further, the Nazir became more dominant among
non-Hadendowa cultivators as a result of his influential position in the
administration of the scheme which was responsible for the allocation of
tenancies. Actually, his personal charisma, being supported by the
official policy and economic circumstances, grew and developed to influence

1. Ibid.
non-Hadendowa groups in the region. All the outsiders, whether from other Beja tribes, or riverains and West Africans in the Gash Delta were incorporated in the Hadendowa Nazirate for administrative expediency. At the end, all the Beja minor tribes i.e. Shaiyāb, Ashraf, Kimilāb, Arteiga, Melhitkīnāb and Segolāb were annexed to the Nazirate. Thus, even under more recent conditions the Hadendowa have been able to continue their expansion which they started during the Funj reign. However, their expansion this time has not been by conquest, but through the implementation of an official policy for effective administration.

In conclusion, we have seen how the Hadendowa progressively became the most powerful tribe amongst the Beja. In their period of political expansion, they tried to make use of the Mahdiya to subdue and dominate other Beja tribes. But they withdrew their allegiance to Mahdism and fought against Osman Digna when they found that the administrative policy of the Khalifa contradicted their plans for expansion and altered their tribal institutions. Nevertheless, the Mahdiya gave them an opportunity to attain more fame and consolidate their control over the Gash Delta. Then more recent administrative development enabled them to stabilize their position in these conquered regions.

Interestingly, the Hadendowa today emphasize their supremacy over the other Beja tribes, maintaining that their ancestors were Ashraf who came to the region as conquerors and adopted the Tu-bedawie language at a later stage. As it is difficult to establish historical validity for the alleged Ashraf ancestry of the Hadendowa, it will be more fruitful to interpret their claim to supremacy in terms of recent historical development and within the modern political and social context. This approach may help to realize the sociological significance of the genealogies of the Hadendowa. Such genealogies reflects the contemporary position of the Hadendowa as the dominant and most influential tribe among the Beja. So the Hadendowa,
particularly their leaders, maintain these claims of Ashraf descent out of pride and to justify their present eminent position in the region.
CHAPTER 2

TRIBAL STRUCTURE AND TERRITORIAL SYSTEM

As I have explained, the Hadendowa claim that they are all descendants of Barăkwîn, and their tribal organization is based on a patrilineal genealogical structure which constitutes a segmentary system of sections and subsections. At the upper level of segmentation there are thirteen main sections (as represented by diagram II) of varying genealogical depth, usually between twelve and sixteen generations. The Hadendowa name each one of these sections adat, literally meaning a branch of the tree, for which I shall use the analytical terms 'maximal lineage' or 'lineage' interchangeably throughout my discussion.

The members of each maximal lineage claim common agnatic descent from one of Barăkwîn's sons or one of his grandsons after whom the lineage is named. Though their respective founding ancestors were not all brothers or cousins of the same generation, still all the Hadendowa maximal lineages at the present time appear to stand in relation to each other as equal collaterals. However such equivalence is maintained deliberately by what is known among anthropologists as the process of telescoping in genealogies. The closer genealogical connection of a lineage's ultimate ancestor with Barăkwîn confers high status and accords greater social prestige to its members. Consequently, the members of each lineage try to maintain such connection and substantiate their claim by dropping a number of linking generations which stand between its founder and Barăkwîn. Thus in effect, the ultimate ancestors of the modern Hadendowa lineages are regarded as full brothers, or sometimes cousins of the same order. But if one works off the pedigrees of individual Hadendowa, tracing them back where possible to the founder of the tribe, the connections between the various lineages' ancestors appear to be very different. In fact, it is

only the two maximal lineages of Gurhabāb and Shebdināb whose founding ancestors were immediate sons of Barākwīn (see Diagram II). Significantly, Wailali who is the supposed founder of the Wailaliāb ruling lineage, comes five generations after Barākwīn, though the living members of this lineage claim the closest genealogical relationship to Barākwīn. This brings us again to the question of the historical value of tribal genealogies which has been discussed in the previous chapter. Equally, these genealogies of Hadendowa lineages can be taken as reflections of contemporary political structure in the tribe.

Most versions of the oral traditions of the Hadendowa assume that the leadership was at first in the Gurhabāb lineage, the descendants of Gurhab Abu-Hadal (Diagram II, generation 2ii). It happened during that early period that the tribe was in a state of severe famine caused by successive years of drought and continuous defeats in wars against neighbouring tribes. Subsequently, the Hadendowa began to lose confidence in the Gurhabāb who had been in leadership for five generations. Then the elders of the tribe formed a council to restore their declining power and waning prestige. One of the members of that council, named Samara (Diagram VI, generation 6(i)) chose Wailali I (Diagram III, generation 5(i)) to be the leader and the head of the Hadendowa. Samara claimed that this choice, which he made during his prayers, was a direct revelation from God, Allah. So the whole Hadendowa approved the selection of Wailali I to be their leader. From that time onwards, Wailali I took over the headship of the tribe to lead his followers into successful raids against their neighbours. Eventually, the Hadendowa were able to move towards rich pastures and to increase their animal wealth. Until the present day, they believe in the good fortune of the descendants of Wailali I who revived and maintained the prosperity and fame of the tribe. They admire him as their first tribal hero and he has become a legendary figure in their history. Since then,
SUCCESSION TO THE HADENDOWA RELIGIOUS LEADERSHIP

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.

(GENERATION)

Tahir

Masud Abu Tahir

Ali

Ibrahim

Hamoud

Hamid

Abdulla

Eisa

Ab bakar

Omer

Sa'ad

Kilai Abu Hamis

Alaislyab Nefaib

Mohammed Musa Samara

Mohammed Hamid (The present Khalifa)
the headship has been kept constantly in the Wailaliāb agnatic lineage, and thus the Hadendowa have had one section which always provides the rulers of the tribe. Both during the era of British rule and since independence, successive governments have made this tribal tradition the basis for the recruitment of the Hadendowa Nazir and other leading sheikhs. The Nazirate was retained continuously by the patrilineal descendants of Wailali I until the office was abolished finally in 1970. Even in modern conditions, the members of the Wailaliāb lineage still maintain their superior position and prestige in the tribe. The high status of the Wailaliāb is recognized today by the tradition that any member of this lineage is entitled to the gwadab. Traditionally the gwadab is a specially chosen piece from slaughtered animals given by the owner to the nearest Wailaliābi living in the neighbourhood. But today, the privileged sheikhs of the Wailaliāb receive the gwadab in the form of live animals, or grain, or sometimes in money.

Similarly, the religious headship among the Hadendowa has been vested continuously in the Samarendiwāb lineage (see Diagram VI), the patrilineal descendants of Samara who inspired the blessed choice of Wailali I and saved the unity of the tribe. At the present, the religious head of the Hadendowa is known as the Khalīfa. The consent of the Khalīfa was necessary on the appointment of every new Hadendowa Nazir whose installation was accomplished by a traditional religious ceremony. During that ceremony the Khalīfa used to dress the installed Nazir in new white clothes and confirmed his acceptance by reading certain verses from 'The Koran'. Then he led the attendants in a ceremonial prayer symbolising the unity of the whole tribe behind its new leader.

More important, the Hadendowa are dependent on the religious services of the Samarendiwāb holy men. Such services are required for curing sickness, in both human beings and animals; and madness, either by the
use of charms or mediation through prayers. Further, these services are also performed to bless children on births and circumcisions, and to confirm marriages. It is the responsibility of the Samarendiwa̱b holy men to provide their followers with charms and they pray on their behalf to guard them, their herds and crops against unexpected misfortunes. So it is believed that these prayers will ensure the annual rainfall, protect the Hadendowa and their animals from contagious diseases, and guard the fields from birds, locusts and pests. Individuals may visit the tombs of the ancestors of the Samarendiwa̱b on certain Islamic festivals to make offerings, usually of animal sacrifice, hoping for protection from diseases, famine and enemies.

Because of their important religious role, the members of the Samarendiwa̱b lineage are widely scattered all over Hadendowa country. In every locality there is a family from the Samarendiwa̱b lineage to perform these religious services for the population in the neighbourhood. In return, the members of these families get a number of presents in the form of animals, grain, sugar, coffee and money. Usually a holy man receives two cows or two camels for the cure of a mad person. This is in addition to a fixed traditional payment in animals and crops which has to be delivered annually by every camp to the nearest religious head in the vicinity. The customary payment in animals is one she-camel in every hundred female camels; one milch cow for every hundred cows, two goats in every hundred goats and one sheep in every hundred sheep. The traditional share in crops is called shawîr and it is one-tenth of the total production from every cultivator, to be delivered annually after the harvest.

Following the Wailaliwa̱b and the Samarendiwa̱b in social prestige is the Hakulab lineage which originates from Hakul, a grandson of Barâkwîn (Diagram II, generation 3(i)). According to oral traditions, Barâkwîn chose Hakul to be the tribal counsellor to carry out the function of
arbitration in the settlement of disputes. Thus the present members of
the Hakulab lineage are recognized as arbitrators and they play an
important role in mediation, both among the Hadendowa themselves, and
between the Hadendowa and other tribes. Their successful performance in
this traditional office has given them an exalted position and good
reputation, especially among the neighbouring tribes and the administrators
in eastern Sudan. The Hakulab leaders always secure the return of stolen
animals to the Shukriya, Bishariyyin, Amarar and Rashaida, and thus they
help the local authorities in maintaining security and restoring peace
among different tribes.

Lineage Segmentation

The maximal lineage (a'dat) is divided into several minimal lineages;
each is known locally by the term diwab. The diwab is a group of agnates
who trace their descent in the male line from a common ancestor, the
founder of the agnatic group. There is no regularity in the genealogical
depth of the diwabs, which varies between five and eight generations.
The term diwab may be used to designate a lineage-segment, an extended
family or an elementary family. Also, it may refer to the residential
place of these units, i.e., a camp, a tent-cluster or a single tent.
However, it is used more often to designate a minimal lineage as well as
its residential locality, i.e., camp. Usually the administrators use the
term hissa for the diwab as a tax-unit. The lineage-segments are
differentiated by putting the name of the ancestor before the word diwab,
e.g., Aliendiwab, Omerendiwab, which mean the descendants of Ali and Omer
respectively, as well as their camps. I will be using the term diwab
through this thesis in reference to a minimal lineage and a camp.

The Hadendowa are a highly segmented society and it is difficult to
define the number of diwabs in different maximal lineages; the number
varies within the range of five and thirty-three. Further, the lineages
vary greatly in their population size. The largest lineage among the
Hadendowa is the Busharih which comprises about thirty thousand members divided into thirty-three diwabs. The smallest one is the Gaidab which has approximately four thousand members distributed among six diwabs. But there is no regularity in the relationship between the population size and the number of segments. For example, the Shebodinab lineage consists of five thousand members and it is segmented into thirteen diwabs, while the Samarendiwb include nearly eight thousand individuals divided among five diwabs only. Therefore, there is no necessary relation between degree of segmentation and the size of the lineage. Although segmentation is expected to happen as a gradual process with population growth and increase in the number of generations along the agnatic descent line, in many cases it occurs in response to ecological factors or as a result of acute internal disputes.

The Hadendowa tribe consists in 1972 of 262 diwabs, but the process of segmentation is still going on, and the tribal structure at this lower level is in continuous change. The scarcity of grazing and water resources can force some extended families to separate from their diwabs and settle in a different region of Hadendowa territory. Such families may not return to their original home and in consequence a single diwab will be territorially split into two or three separate extended families. Through time each one of them develops into an independent diwab. Moreover, as individuals, Hadendowa are easily provoked; and conflicts arise constantly among them in daily life. Provocations of this kind can occur suddenly at any time as a result of trespassing in the environments of houses, using insulting words, misconduct towards women, or conflicts over pastures and watering-points. It is common to meet Hadendowa, even young boys at the age of seven, fully armed with swords, knives and heavy clubs, ready to attack or defend themselves. An individual may draw his sword and strike whenever he is provoked or insulted. The usual excuse given in such a case is that he hears an insulting word which will not allow him to sleep: "do'o sait a'rib". Usually during large gatherings
such as marriage ceremonies or around wells tension among individuals may develop into a fight within the same diwāb and this eventually leads to its split.

Territorial system

The Hadendowa territorial system reflects the segmented lineage structure which the tribal genealogies represent. As has been mentioned above the first appearance of the Hadendowa is assumed to have been on the Red Sea Hills. Then the whole tribe expanded gradually southward until it came to occupy the Gash Delta. Further they continued their conquests to the River Atbara on the west, and as far as the present Sudan-Ethiopian border on the south-east. Subsequently these conquered areas were distributed among the founding generations of the modern lineages of the Hadendowa, each receiving a share in different regions. However, the tribal territory was not distributed among the various lineages equally. The extent of a lineage's shares could have been affected by political and economic processes in the area, such as population growth or size of animal wealth at the time of expansion. Large powerful lineages with big herds succeeded in establishing and maintaining territorial rights over vast areas; and thus extended their holdings. In most cases this was achieved by pushing non-Hadendowa groups further away. Evidently the Gemilāb lineage kept moving constantly eastward expanding its territories against some sections of the Beni Amer tribe.

The territories of a maximal lineage are allotted among its constituent diwābs. The allotments of individual diwābs vary in area as these diwābs vary also in their population size and animal wealth. More important, because a lineage's shares are not confined to a particular region, so collateral diwābs are not found clustering in one neighbourhood, but they are widely dispersed over a number of territories in different parts of Hadendowa country.
The diwāb is the smallest territorial unit in the Hadendowa segmentary system as its members have collective rights and claims in a particular territory. Either they live together in one camp or else they are divided into a number of residential groups camping and moving in close proximity to each other within a defined territory.

The ownership of land is highly valued in this society; and the Hadendowa have developed a complicated customary law, aṣliḥ, to regulate the system of land ownership and the allocation of its uses. All disputes over territorial rights or utilization of natural resources are settled by the interpretation of this law which deals in great detail with various aspects of conflicts over grazing and cultivation. This customary law recognizes and distinguishes conspicuously between two sets of rights in land known by the terms aṣl and a'māra. Aṣl and a'māra are two Arabic words which have been incorporated in the Tu-beja'awie language and become the principal legal terms used by the Beja in relation to questions of land ownership. The first word, aṣl, means origin and it refers here to joint rights in a certain territory. Aṣl rights can only be established by reserving and claiming a virgin plot of land, or by conquest. So this right is customarily invested in the diwāb whose members or ancestors are believed to be the first occupiers of the territory concerned. Once it has been obtained, aṣl title to a territory is a permanent and unchangeable right.

The aṣl territorial rights are inherited collectively by male members of the diwāb in the patrilineal descent line, and it must remain constantly within this specific agnatic group. According to this strict rule women are excluded from collective inheritance of the territorial rights and they have no sort of recognisable claims in land. The Hadendowa explain the exclusion of women from these rights by claiming that since a woman might be married outside the diwāb, any rights in land that she held would be claimed by the non-agnatic husband and his descendants. In this way
territorial rights would pass from one diwāb to another; and a large part of a diwāb's territory might be lost. Thus the Hadendowa attitude towards land-ownership and their great concern to keep it in the agnatic group only may justify the exclusion of women from inheritance of land. No diwāb prefers to share the ownership and utilization of its territory with non-agnates, who will certainly create more pressure on the available pastures and watering centres. In an environment where natural resources are very scarce and competition over grazing and cultivable land is very high; each diwāb is expected to preserve carefully what it has got for its descendants only.

Therefore, agl rights belong to the whole diwāb and no territory is divided into individual shares. The diwāb members have equal access to pastures and natural water resources, such as springs, streams and pools in their territory. But there are certain acknowledged individual rights in cultivable plots, wells and residential sites. Nevertheless these individual rights are conceptualized by the Hadendowa and defined by the customary law as usufructuary rights and not of agl ownership which is never divided into shares or alienated from the diwāb as one owning unit. Consequently transactions in natural resources within each territory are controlled by the diwāb and the individuals have no right to dispose of land either by sale or in the form of a gift. The tribal rules of the Hadendowa do not recognize gifts in grazing rights, wells, trees and agricultural land unless they are approved by the whole diwāb. Although sales of land are not permitted by customary law, land may be transferred from one diwāb to another within the same maximal lineage as a form of compensation in place of blood-money, tudiva. But a transaction of this kind between diwāba of two different lineages, is not recognized in tribal custom.

According to these rules about individual rights, each male member of
the diwāb can reserve an unused piece of land for cultivation constantly every year, and no other agnate can utilize it without his permission. This usufructuary right will remain the privilege of the first user, and it passes to his heirs when he dies. In addition, the individual holds a permanent usufructuary right in a well or a number of wells which he may open on the diwāb's territory. He controls the use of these wells, and he has a right to prevent other people, including his agnates, from using them without his consent. Usually wells are the only form of individual property which last for a long period of time. Today, there are a lot of wells which have been inherited through a number of generations; the dates of opening some of these wells go back to the eighteenth century. Disputes over such wells are an integral feature of Hadendowa political life.

The third recognizable individual right of use in land is the tent place. During movements over short or long distances, each tent must be repitched on sites which it previously occupied. Every family has a permanent right to return to the same site after each movement, and such a site will not be occupied by another family. It is the duty of the male members of the tent to protect this right which remains constant, unless the place is abandoned for a number of successive years, then it can be used by another family.

The failure to observe these individual rights of permanent use often leads to disputes within the diwāb, even among brothers or first patrilateral cousins. A dispute like this, if it is not settled from the beginning, may result in the segmentation of the diwāb. Usually one of the contending families, joined by its supporters will split from the original camp and form a new settlement. The daily life of the Hadendowa is characterized by such conflicts which occur frequently over wells and agricultural land. This can be demonstrated by a case from Harīroyāb diwāb of the Gemīlāb maximal lineage. One morning, Omer (Diagram VII, generation 8, xii),
HARI ROYAB DIWAB:

DIAGRAM VII

GENERATION
1  2  3  4  5  6

HARI ROYAB DIWAB:

OYAM

HARI

MOHAMMED

AHMAD

TUFIQ

ABU MADINA

MUSSAN

MOHAMMED

Tahir

SATISH

ABDULLA

ISMAIL

AHMAD

MOHAMMED

KAIS

AHMAD

HAJ

MOHAMMED

MUHAMMAD

MOHAMMED

MOHAMMED

KAIS

AHMAD

ARSHAD

MUHAMMAD

HAJ
started to draw water for his camels from a well owned by his patrilateral parallel cousin Tāhir (Diagram VII, generation 8 iv). Then Tāhir, who came later on to the well-centre, tried to stop Omer from carrying on, claiming that Omer had not been given permission to use the well. The conflict developed between the two men, each supported by his brothers and their sons (see Diagram VII). The hostility continued between the two groups for more than one week. Then Mahmoud (Diagram VII, generation 7 ii), who is the father's brother of both Omer and Tāhir and the senior member of the diwāb, tried to intervene and settle the dispute between his brothers' sons. But Omer refused the mediation and the advice of his father's brother, saying that Mahmoud was supporting Tāhir who was also his son-in-law. At the end, Omer, with his three brothers Mahmoud, Karrār and Ibrāhīm, with their sons, separated from the original diwāb and formed a new camp about three miles away. In spite of that Mahmoud continued his efforts for the restoration of peaceful relations between the disputing cousins until he succeeded. However, Omer and his brothers did not move their tents back to the original camp and subsequently they formed an independent diwāb known by Eisaendiwāb, named after their father Eisa (Diagram VII, generation 7, iii).

The second set of rights in land is known by a'māra. A'māra refers to usufructuary rights in grazing and cultivation land, and in watering centres and of pitching tents on asl of others. By this right individual families, or sometimes a whole diwāb, can make use of land in which they have no asl rights provided that they obtain permission from the holders. Moreover, a'māra rights involve payment of certain dues, the gwadāb to the asl owners. The gwadāb is paid annually in kind, either an agreed number of animals or a fixed proportion of the agricultural produce raised on the land in question. In most cases the value of the gwadāb is not defined, and it depends largely on the economic capacity of the person who is paying as well as on his relationship to the asl holders. Customarily the gwadāb
on land is not exchanged among diwāba of the same lineage. Also it is not required from refugees who are seeking protection and a place to establish a new residence. Further, the payment of gwadāb is considered nominal and symbolic; its function being recognition of the right of asl holders in their territory and ensuring the continuity of a'māra right to the payer. So the Hadendowa are not interested actually in the material value of the gwadāb but in its significance as a recognition and a sign of respect of asl right.

Agl right is unchangeable, even when its holders are living away from their territory or have not been utilizing it for a long period of time. Consequently, permanent utilization of a territory or a part of it by an outsider, whether he is paying gwadāb or not, does not affect the original asl right. An exception to this rule is occupation through conquest, but with the recent stability and maintenance of order in the region this is no longer relevant. Equally, according to the tribal customs, a'māra right is unchangeable as long as the user continues to pay the gwadāb or recognizes in principle the right of the original holders. However, the asl holders are expected to watch their right constantly, preventing a'māra users from preparation of land for cultivation, cutting down trees, and opening new wells or repairing old ones, unless permission is granted in advance. An appropriate example here is a well at a place called Adarmimash in Khūr Langeb. There are some members of the Gemīlāb lineage who have been living here for a long time by a'māra rights in an area which belongs originally to the Wailaliāb lineage. When the question of repairing wells arose, the Gemīlāb had to consult, and take permission from the Wailaliāb lineage whose members were living away from the area. The Wailaliāb allowed the Gemīlāb to repair the wells, provided that a man from the Wailaliāb would be appointed as agent for obtaining labour and doing the work. Apparently the Gemīlāb accepted this arrangement as a sign of respect to the asl holders.
Although terms of a’mära do not give the right to develop land without the consent of asl owners, the latter must not refuse such a request as long as they realise that their rights are observed. Finally, the customary law gives asl owners the right to use any well opened on their territory by a’mära users. In return the owners have no right to refuse permission or to expel the users once permission is granted as long as they pay regard to the customs relating to land-tenure.

The neglect and violation of either of these rules is a major source of disputes among the Hadendowa at all levels of tribal structure from the diwāb to the lineage. Within the maximal lineage, collateral diwābs are not expected to trespass, or to utilize each other’s territorial rights, without prior agreement. Diwābs of different lineages must follow similar arrangements and observe the same rules. Transgression of territorial rights and contention over land, whether for grazing or cultivation, may lead to severe conflicts and to the outbreak of fighting between two collateral diwābs. Frequently, such a conflict may develop into a lasting feud involving a series of homicides and revenges, and if this point is reached, it becomes difficult to end the dispute. In a situation like this, no one of the disputing diwābs receives help, whether from inside or outside the lineage. Usually the other collateral diwābs will give no support on either side but they will intervene immediately, persuading each party to accept reconciliation and end the hostility. Though the diwāb may split into opposed factions over issues of internal rivalries concerning the use of land, it acts as a united undifferentiated group against outside encroachment. The diwāb members are bound by common interests in their territorial rights which they inherit collectively, and they remain vigilant to protect them. This joint responsibility towards land is an important issue for the diwāb to act as a political corporate group.

A classical example of a long feud, as a result of a dispute over land
within the maximal lineage, is the conflict between the two diwābs Nogdāb and Awadāb of the Bushāriāb lineage. The dispute started between them in 1963 when Nogdāb prevented some members of the Awadāb diwāb from cultivating in Khūr Fagada to the east of the Gash Delta, claiming that it was their asl and they had not been consulted. But Awadāb did not recognize Nogdāb's claim and refused to pay gwadāb to them. Subsequently a man from the Nogdāb was injured by Awadāb while he was trying to stop them from preparing land for cultivation. The fight extended to include all members of the two diwābs present. At that stage, the members of the neighbouring collateral diwāb of the Bushariāb held a meeting, Wajāb, and formed a council to settle the dispute. The practice in such situations that the offender should give the injured person a nominal present, ajart, either in animals or money as a sign of goodwill so that he may accept the terms of the settlement. Further, they have to pay him tokla, which is usually money and oolla', purified butter, as the wounded man is forced to remain at home without work. This payment would support him in obtaining his food, and it also implies that the offenders would be ready to take the responsibility for their offence. So the Awadāb agreed to deliver two sheep and a cow to Nogdāb. But before that payment was concluded, the injured man died as a result of infection from his wound. Then Nogdāb rose up to take revenge, ramad from Awadāb by wounding a man and his two sons, beside gashing the arms of three other young men in the course of fighting. The raids and attacks continued between the two diwābs until 1969. Eventually, Nogdāb succeeded in killing seven men from the Awadāb and fled to Eritrea across the border.

During this long period, the other diwābs of the Bushāriāb did not interfere to support one party against the other. But they were trying all the time to close the feud by persuading each party to accept compensation for injured members and todiya for those who had been killed. The Nāzir of the Hadendowa with his leading sheikhs and notables advised
the local authorities that the police should not interfere, as it would be more effective to settle the dispute according to the principles laid down by the customary law. The provincial authorities agreed to this plan of action and so the Nazir continued his efforts to bring the two disputing parties together. He succeeded in November 1969 in convincing the Nogdāb to return home for the settlement. Hence a meeting was held during which the mediators assessed the loss and damages for the compensation. Usually, the procedure in these cases is to close the feud by accepting todiya, blood-money, for each murder and compensations for wounds and other injuries. Formerly, the rate of todiya among the Hadendowa was one hundred she-camels for a man and half that number for a woman or a slave. But today, the diwāb and maximal lineages cannot afford this large number of camels, so todiya is assessed in terms of money to the equivalent of a hundred Sudanese pounds for a man. Although todiya is collected from the whole diwāb of the murderer, it is not divided among the members of the deceased's diwāb, but it goes wholly to his immediate family. In addition to the payment of todiya, the sheikh of the deceased's diwāb will receive about ten Sudanese pounds (it was one camel in the past), as a reward for his efforts in convincing his people to accept the settlement and restore order.

Compensation for wounds and injuries is known as kamōda. The traditional rates of kamōda are as follows: a limb which is rendered useless is equal to fifty Sudanese pounds. The Hadendowa say that when a man loses his arm or his leg then he is only worth half his former value for his family as a productive member or for his kinsh group as a fighting member. The compensation for the finger is fifteen Sudanese pounds, three pounds for each joint; and the toes are of the same rate as the fingers. Moreover, any damage to the face is heavily assessed because it is disfiguring. Thus any loss of an eye, ear or nose is equivalent to fifty Sudanese pounds. Sometimes the victim may lose his two legs, then
the appropriate compensation is a camel to carry him, as he cannot walk.

It appears that both compensations and Tu-diya are relatively high considering the present economic position of the Hadendowa. So the assessed losses of the dispute between Nogdāb and Awadāb needed 1500 Sudanese pounds for compensation; i.e., the Awadāb claimed one thousand and Nogdāb claimed five hundred. The meeting decided that Nogdāb should pay the difference, amounting to five hundred Sudanese pounds, to Awadāb, in order to reach a satisfactory resolution. At the same time, the council realised that this was a large sum of money which Nogdāb could not afford to pay, so it asked the two parties to make further concessions according to the customary law. Although the Hadendowa accept the assessment of todiya, they do not recognize that it is a full compensation for an individual life. The transfer of todiya is symbolic, to confirm the apology of the offenders and to show that they have accepted the blame for their deed. In many cases, the members of the deceased's family refuse to take todiya, though they have insisted on its assessment so as to establish their right. Thus the Awadāb agreed to receive 145 Sudanese pounds from the Nogdāb. From this money, one hundred were delivered to one man as a compensation for the serious wounds which were inflicted upon him during the fight. The remaining forty-five pounds went to the sheikh of the Awadāb who was entrusted to distribute it among his followers who had minor injuries. The Awadāb claimed that they conceded the rest of the compensations to be a dahrāb with the Nogdāb. Dahrāb means that the injured party will not take full compensation from the offender, as long as the latter will not claim full compensation in some future dispute between the two groups. Dahrāb is unique in the customary law of the Hadendowa because it enables the injured party to establish its right and accept a settlement without compensation, but it is left as a kind of investment for the future. Dahrāb is used in the future to obtain similar concessions from a previous offender, provided that the incident
involved is not intended to be a revenge. However, it is very difficult for the customary law to decide whether dahreb right is misused to take revenge or not. If the circumstances indicate that it is actually misused, then in this case it will be lost. Nevertheless the Hadendowa consider that dahreb is more effective in maintaining good relations among different diwāba than the payment of full compensation. They believe that it is a real test to the tolerance of the tribe, and it provides a kind of obligatory bond which maintains peaceful existence of neighbouring diwāba.

So far I have considered disputes over land as the main factors of conflicts within the diwāb and between different diwāba of the same maximal lineage. The lineage is territorially dispersed as its members are not congregated in one region, but still its unity is manifested noticeably in matters concerning the defence of territorial rights. On such occasions the ties of common agnatic descent seem to be very strong, and this principle links together isolated and scattered diwāba of each lineage providing a framework for political co-operation. Thus the members of the lineage form a corporate group with collective responsibility sharing obligations to defend each other against external attack. Here, the lineage as a whole will act as a united body facing outside intrusion on any part of its individual diwāba' territories. In the case of infringement the diwāb concerned usually gets immediate support from its collateral diwāba living in the same neighbourhood. But if the dispute develops and the confrontation becomes more serious then those collateral diwāba living in distant regions will interfere and move towards the place of the dispute. It is very remarkable in these situations to see how agnatic kinship ties unite widely spread diwāba in one another's defence. Eventually, a quarrel over land between two diwāba of different lineages is more likely to extend and involve both
An example of conflict over land between two lineages is that between Shāraʿāb and Emīrab on Erkowit Hills. The area in dispute is originally ašl ownership of the Shāraʿāb, but Emīrab have been living on it for a long time on the basis of āʾmāra rights. The Emīrab have no ašl right in Erkowit area, and they have for the last sixty years always obtained land for cultivation, pastures and water from Shāraʿāb. Shāraʿāb were not intending to change their policy towards Emīrab, as long as the latter recognized the former ašl right and respected customary law relating to land use. Then suddenly an acute dispute arose between them when a member from Bugolonai diwāb of Emīrab started to cut down a tree without asking permission from the ašl owners. In this incident members of Tunkuk diwāb, who were the nearest Shāraʿāb to the region, objected to the Bugolonai and tried to stop them from using their land. The conflict developed into a fight and two individuals, one on each side, were wounded. When other diwābs of the two lineages in different parts of Hadendowa country heard of this dispute, most of them moved towards Erkowit, each to defend their lineage. A Shāraʿāb informant in the Gash Delta told me that "Erkowit is Shāraʿāb land and we must defend it." There was a large gathering from the two lineages ready to fight.

During this incident representatives and notables from other lineages intervened and urged the fighting parties to settle their dispute. The attempts to resolve the conflict succeeded and the mediators assessed the losses of each side for compensation. The traditional approach for the resolution of such conflicts is by the interpretation of the customary law, to find out who have the ašl right in the disputed territory. The procedure for the settlement may take up to four or six years. During this long process each party will try to find evidence in support of its claims, especially if a well is involved because this may mean tracing the inheritance back through six or eight generations to find out the person who
opened it. In the meantime the two parties have to suspend their hostilities while awaiting the final settlement. In the previous case the Bugolonai recognized the asl right of Shāra'āb and the fact that they had to be consulted about all matters concerning the development of land. The Hadendowa are obliged to accept and recognize the verdict on the basis of customary law, which they hold in great respect. There is no effective means for the settlement of disputes in land among them other than application of this law. Any successful settlement must take into account the right of the asl owners as well as that of the a'māra users.

Principles of Social Organization: Descent and Territoriality

The segmentary lineage of the Hadendowa is based on a patrilineal genealogical structure. Territorial rights are inherited collectively by male members of the agnatic descent unit and women are excluded from such inheritance. But at all levels of segmentation there are individuals, diwābs or even lineages who have obtained these rights through female links. The preferred pattern of marriage among the Hadendowa is diwāb endogamy, and one of the important factors underlying this preference is that it limits the utilization of land to the agnatic group. Among two hundred marriages distributed over different diwābs 186 (93 per cent) are intra-diwāb marriages. The remaining 14 cases (7 per cent) are outside the diwāb. When a woman is married to a non-agnate, her descendants usually continue residence with their maternal relatives because rules of residence among the Hadendowa are matrilocal. Eventually, they will be assimilated into their mother's diwāb and become full members with right to share the economic resources with that diwāb. Likewise, through the assimilation of daughter's descendants, the pressure on the diwāb's land will increase. So intra-diwāb marriage is preferred and by such marriages each diwāb avoids the incorporation of non-agnates who put pressure on the economic resources.
However, in spite of emphasis on agnatic rules of marriage, women can be married off to non-agnates. In most cases of outside marriages, a husband may be a fugitive escaping from his agnatic group as a result of homicide or adultery. A man who runs away on such occasions and seeks protection in another group is known as hasībīb. A hasībīb is always a refugee from another lineage or from a neighbouring tribe. When a fugitive asks for protection he will not be denied it, and more important the customary law of the Hadendowa recognizes his right to have protection. Therefore it will be against the customary rules to hand over a hasībīb to his pursuers. Furthermore it is an obligation to provide him with a number of animals and grant him grazing and cultivation rights so that he can settle and earn a livelihood. It is likely that the hasībīb will marry into the diwāb which offers him this protection and consequently his children are affiliated to that diwāb. Through time the number of their generations will increase along the patrilineal descent line until they become large enough to form an independent diwāb.

Thus today, there are several diwābs which are related to various maximal lineages by female links. This fact is conspicuously revealed by the way in which the members of such diwābs mark their animals. Among the Hadendowa each lineage has a distinct traditional animal brand and all members of the lineages mark their animals with it. But the members of any diwāb which is related to a lineage by a female link normally identify their animals by two brands: that of their ultimate male ancestor's lineage and that of the lineage where they have been incorporated.

Below, I will give two examples to demonstrate the process of such assimilation through a female link. First is the Amrendi diwāb which, at present, is a corporate descent group and all its members claim agnatic relations with one ancestor Amēr (Diagram VIII, generation 1). All the members of this diwāb constitute one camp and hold collective rights of asl ownership in a defined territory. However the majority of them are
ASSIMILATION OF AMRAI DIWAB

GENERATION:

SHARAAB KANGER CLAN DIWAB ASHA

AMIR ALI MOHAMMED

KARRAR (i) MOHAMMED MAHMUD (ii)

AHMED (iii) MOHAMMED GAFFED ADROPE AR.

MAHMUD (iv) AHMED (iv) HASSAN (iv)

AHMED (v) OHAJ (v) AHMED (v)

ABU FATIMA ONUR EL AMIN (vi)

ONUR (vii) AHMED (vii) OHAJ

MEDANI KARRAR (viii) (viii) (viii)

MOHAMMED ABDULLAHI OSMAN (ix)

MOHAMMED AHMED
related to Amīr in the male line, but some of them by a female link.

Diagram VIII explains that the Amrendiwaḥ has been assimilated into the maximal lineage of the Shaḵra'āb through the marriage of Muhammad

generation 3ii) to Asha (generation 3(i) from Kangar which is one of the Shaḵra'āb diwaḥa. Muhammad's children and their descendants until the second generation were brought up among Kangar diwaḥ. Thus they have been assimilated into that diwaḥ through female link and matrilocal residence.

The third generation of Muhammad's descendants separated themselves from Kangar diwaḥ and formed their own camp about twenty miles away. Since then, they have been known as Amrendiwaḥ, deriving their name from Amīr, the grandfather of Muhammad. Today, they are included in the lineage of the Shaḵra'āb, with their own territorial rights.

The second example is Buglad diwaḥ, of Gemīlāb lineage, which has been formed from the descendants of a refugee ḥasībīb. In Diagram IX Muhammad Ali (generation 1 (ii)) is the earliest ancestor of Buglad diwaḥ. Buglad is his nickname, and it is a Tu-bedawie word which means a person who refuses a pledge. Originally, Muhammad Ali is from the Beni Amer tribe, but he fled from his people after he had killed one of his cousins in a dispute over ownership of a camel. He came to the territory of the Gemīlāb and according to Beja custom one of the Gemīlāb notables accepted him as a refugee. Then he married from the Gemīlāb and continued residence with the diwaḥ of his wife. At the present, his descendants constitute a separate diwaḥ in the Gemīlāb lineage with territorial rights of aal ownership in Hadendowa country.

The importance of these matrilocal residential ties in establishing a series of rights and obligations among co-residents enables the Hadendowa to become the powerful and the largest tribe among the Beja. Although, at present, the whole Hadendowa have a patrilineal ideology and thereby validate the agnatic connection with Barākwīn, and although they think of agnation as the basis of social interaction, still four of their lineages
ASSIMILATION OF BUGLAD INTO GEMILAB LINEAGE

1. GEMILAB CLAN

2. MADINA

3. MUSA

4. HAMAD

5. BASHIR

6. TALLAB

7. YUSIF

8. NAKASUB

9. TAHIR

10. ALI

11. AHMED

12. MOHAMMED

13. MOHAMMED

14. AHMED

15. MOHAMMED

16. MOHAMMED

17. AHMED

18. MOHAMMED

19. AHMED

20. MOHAMMED

21. AHMED

22. MOHAMMED

23. AHMED

24. MOHAMMED

25. AHMED

26. MOHAMMED
have been incorporated into the tribe through female links. The oral
genealogies show that the lineages of Shāra'āb, Gārieb, Bushāriāb and
Samar'ar originated from Ja'ali, Funj, Shukri and Turkish male ancestors
respectively. Both Garieb and Shāra'āb lineages are related to the
Hadendowa through their earliest ancestress Madīna, Bashuk's daughter
(Diagram II, generation 3(iv)) who was married twice: first to a man from
the Funj, and second to another man from the Ja'aliyyīn/Makābrūb. She
got from the first marriage a male child called Muhammad whose descendants
constitute the present lineage of the Gārieb. The name Gārieb may be
referred to the Gara'a, bowl, which is associated with their Funj ancestor
who is described as being a beggar. The result of the second marriage was
also a son named Ali who is believed to be the founder of the Shāra'āb
lineage.

Further the oral traditions speak of a Turkish man called Loglog who
happened to come to Sawākin and married one of Hakūl's daughters (Diagram
II, generation 3(ii)). He begot Samara who is taken to be the founding
ancestor of the modern Samarar lineage. Moreover, the genealogies suppose
that a man called Hāmid, from Shukriya/Ekeīkāb, married Gemil's daughter,
Būra (Diagram II, generation 3(viii)) and begot Bushāra. Later on,
Hāmid took a second wife from the Garieb lineage and had three more sons.
All the descendants of Hāmid from both marriages are known by the
Bushāriāb, named after Bushāra, because he was more famous than his other
three half-brothers due to his large family and great animal wealth.

However, the oral traditions have mentioned no dates for these outside
marriages. But they associate the assimilation of the four above-
mentioned lineages with the early days when the Hadendowa were a small
number of people living in a state of continuous war against their
neighbours. Then because rules of residence are matrilocal, those
strangers who married into the Hadendowa continued to live with their wives
and eventually their descendants were incorporated into the tribe. The
Hadendowa grew in numbers and built a strong fighting group through such process of assimilation. The matrilocal residence qualified the early generations of these non-agnatic lineages for the acquisition of territorial rights in Hadendowa country.

So far, I have tried to show how membership of every unit in the tribal structure is not determined by male descent relations only; and therefore the social organization of the Hadendowa cannot be understood fully in terms of patrilineal ideology alone. My argument here is that the Hadendowa being a patrilineal-matrilocal society, all their social relations are moulded by agnatic descent and residential ties. Perhaps it may be argued that the transfer of territorial rights to daughter's children is evidence for the occurrence of a matrilineal mode of descent. However, in my view this still is an unsatisfactory deduction because first the assimilated diwābs and lineages are not matrilineal groups at present; it is only that their points of reference are female ancestors. Today, the members of these groups identify themselves as full members of Hadendowa agnatic kinship structure, and they are recognized by the rest of the tribe as equal brothers. They trace their descent in the male line to the non-Hadendowa ancestors who had been married to some of Barākwīn's grand-daughters and refer to those marriages to establish their link with the Hadendowa agnatic genealogy. Second, such a link is not defined by the Hadendowa in terms of descent, but they understand that it has come about due to the importance of residential and affinal ties. Therefore, I believe that the inclusion of daughters' children, from non-agnatic husbands, does not necessarily indicate the co-existence of patrilineal and matrilineal ideologies. However, strict application of rights maintained by descent rules only, whether patrilineal or matrilineal, would be contrary to present political and economic processes among the Hadendowa.

The importance of residential ties, and the acquisition of territorial
rights through residence, allow for movement of individuals from one unit of tribal organization to another, for the purpose of escaping from severe conflicts and feuds; or most importantly, of exploiting available natural resources on the basis of a'māra. So there are two types of residential ties. First there are ties of matrilocal residence which will lead eventually to the acquisition of aqil territorial rights. Second there are ties of a'māra residence which give only usufructuary rights which are regulated by the customary rules. Thus it is necessary to consider that the rules of descent and residence together constitute the most important principles of Hadendowa social organization. These two principles prevail as complementary frameworks for individual and group interaction.

Administrative organization

As a general policy of the British rule in the Sudan, the formal administration of the Hadendowa was set up on the principles of their segmentary lineage structure. During the early phase of that policy, the administrative organization of the tribe was a hierarchical system based on three ranks of authority: the Nazir, omdas and sheikhs. The Nazir was at the top of this system, with the omdas subordinate to him on the level of the maximal lineages. Under each omda came the sheikha of the diwābs who were called administratively hisaa sheikhs. The power of nomad sheikha ordinance, which was legislated in 1921, was applied to the Hadendowa in 1928. Accordingly, the Nazir was appointed as the president of the Hadendowa main court with tribal jurisdiction over the members of his tribe only. In order to consolidate the position of the omdas, the government established omodiya courts, one for each omda to judge in cases of territorial disputes, thefts and family affairs like inheritance and

1. Arabic: (sing.) omda, (plural) omdas, and sheikh (sing.), shiyākh (pl.); but I will be using the English plural (omdas and sheikhs) for convenience.
divorce among the members of his lineage. Further, animal tax was assessed on the omodiya basis by allotting a lump sum of money to each lineage and making the omda responsible for its collection. The omda in his turn would divide that sum at random among the hissa sheikhs who had to collect it from the members of their diwābs.

The aims of that policy were to unite the scattered Hadendowa population under one system of effective control for the purpose of maintaining security, and for the efficiency in the collection of taxes. The government was faced with a highly segmented tribe with numerous small diwābs in a vast area. So it considered the maximal lineage to be the major administrative unit which could bring dispersed collateral diwābs together in one omodiya under the authority of an omda.

However, the shortcomings of that policy were apparent from the start. Instead of achieving its aims by amalgamating isolated collateral diwābs in one omodiya, it accelerated the process of segmentation within the maximal lineage. The result was more administrative difficulties in the maintenance of security and collection of taxes. As is the case today, the diwābs of one lineage did not live together in one particular region, but were split into small territories in different parts of Hadendowa country. Therefore the omodiya was not a territorial unit and the omdas did not have effective access to the majority of their constituent diwābs. Each omda found it practically difficult to travel from one region to another in order to collect taxes from his followers, and to administer justice over his omodiya.

Furthermore, the Hadendowa were not accustomed to have one leader in the lineage as the collateral diwāba came together temporarily in support of each other and then dispersed. They did not recognize the omdas to be permanent leaders of the lineages, and they resented the institutionalization of their power, because this would weaken the position of the diwābs as the most autonomous segment in the tribal structure. Since the omda was
appointed from one diwāb in the lineage, that diwāb would acquire an exalted and powerful position over its collaterals. Eventually, there was a competition among the diwābs in each lineage over the office of the omodiya and many hissa sheikhs refused to collect taxes for their omdas. ¹ Ambitious and influential hissa sheikhs mobilized neighbouring collateral diwābs and demanded to create their own omodiyas. Thus the introduction of the office of the omda gave rise to more rivalries within the lineage and every diwāb assumed that it had equal right to have that office. Subsequently, there appeared a strong tendency towards segmentation. The lineages of the Bushariāb, Garieb and Hakulāb were divided into three omodiyas each. Also, the Samarendiwa, Gemilāb and Wailaliāb split into six omodiyas, two for each.

The official policy failed in the stabilization of the segmentary lineage of the Hadendowa and the diwāb continued to be the main sphere of opposition to the power of the omdas. This persistence in the traditional system can be related to the fact that the diwāb is a territorial unit and its members have common interests in a defined territory.² Thus they unite to protect their collective awl rights in opposition to other diwābs, whether from inside or outside the lineage. In many nomadic societies title to specific plots of land is unimportant as usufruct of resources in a large area is common to all members of fairly large descent groups such as the tribe Gabila among the Baggara. But among the Hadendowa the situation is different as every diwāb is identified with a specific territory. So territoriality is a far more important aspect of the Hadendowa social organization. This has contributed to the continuity of the diwāb as the basic agnatic segment in the tribal structure.

Although the government at the beginning intended to administer the Hadendowa on the basis of their traditional social organization, it took

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only one aspect of that organization, namely descent, and neglected the
importance of territoriality. But later in 1930, the government realised
that it was necessary for any effective administration of the Hadendowa to
incorporate both principles of descent and territoriality in one administrat-
ive system.\(^1\) The old policy was changed and Hadendowa territory was
divided into five administrative regions on territorial basis, each known
by khat.\(^2\) These are: Northern, Gash, River Atbara, Odi and Frontiers (on
the border with Ethiopia) khat\(s\) (see Map 5).

The khat was put under a direct responsibility of one leader called
khat-sheikh. The sheikhs of the khat were chosen from the Nāzir's family
for reasons of administrative efficiency and elimination of rivalries among
lineages over these offices. The administrative and judicial powers were
concentrated in one family - Wailaliāb - whose authority could be accepted
by all the Hadendowa. The tax assessment was made on diwāb basis and
hissa sheikhs became responsible for its collection to the khat-sheikh
directly. Therefore instead of belonging to an omodiya, the diwāb under
the new system would belong to a region. Another step in the direction
of territorial administration was made in 1936 by reorganizing Hadendowa
Courts on a regional basis.\(^3\) A court was established in each khat with
the sheikh as its president. Further, omodiya courts were abolished and
replaced by what was called branch courts in different important marketing
and watering centres all over Hadendowa territory. The presidents of the
branch courts were also chosen from among the members of the Wailaliāb
lineage. The Hadendowa main court, khat courts and the branch courts were
given territorial jurisdiction so that they would be able to deal with cases

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2. Khat (sing.), Khutōt (plural). I will use the English plural khat\(s\)
   for convenience.
involving members of non-Hadendowa groups in the area. The appeals to judgements had to go hierarchically, i.e., from the branch court, to khat court, and finally to the Hadendowa main court. The position of the Назир and khat sheikhs was consolidated by such extension of territorial power, and by the combination of judicial and administrative functions. While the powers of khat sheikhs and the presidents of branch courts increased, that of the омдаэ decreased gradually, until they changed to nominal figures without effective power. In this way the administration of the Hadendowa became more centralized, controlled from the top by the institutionalized power of the Вайлалинб, but at the same time remaining very diffused on the level of the диәбэс.

After the independence of the Sudan, national governments continued to operate through this system until 1970 when the offices of the Назир and омдаэ were abolished finally.¹ In view of administrative difficulties of which the present government is aware, кhat sheikhs together with hisса sheikhs have been allowed to operate as before. Today, these are the main administrative apparatus, particularly for the collection of taxes. In fact tax collection has been the persistent problem confronting the administrations of the Hadendowa ever since Turkish rule.

¹. This was a part of an official campaign to abandon native administration all over the country.
CHAPTER 3
ECOLOGY AND ADAPTATION

The Hadendowa Environment: Its Characteristics and Natural Resources

The Hadendowa are the biggest tribe among the Beja, with a population of about 260,000. They are situated roughly in the middle of Beja country, i.e., between the Amarar to the north, the Bishāriyyīn to the north-west and the Beni Amer to the south and south-east. The boundaries of Hadendowa territory coincide with Aroma Rural Council district which lies approximately between latitudes 15° and 19° 15' north and longitudes 35° 25' and 37° 30' east. This is an area of about 40,000 square miles bounded to the east by the Red Sea coast between Sawākin and Tokar. Its southern boundary extends from Tokar due south-west until it reaches the northern environs of Kassala town. Thence it continues to the Butana Bridge on the River Atbara; and from there it proceeds further following the eastern bank to Göz Rejeb. In the north the boundary runs northward from Sawākin through the Red Sea Hills up to Kambosanha Station. Then it turns southwest over the western slopes as far as Musmār on the Port-Sudan-Atbara railway line. From here, the territory of the Hadendowa stretches southwards covering the vast rolling plains until it ends at Göz Rejeb again. (See Map I.)

Hadendowa territory covers an area of different physical features ranging from the high massive Red Sea Hills which fall westwards into the desiccated rocky outcrops. As one moves further inland, the landscape changes from the sandy wastes in the north to the clay plains of the Gash Delta in the south. Further to the west and parallel to the Gash Delta there are the eroded deposits, Kerrib, along the bank of the River Atbara. The characteristic features of the whole area are barren, rugged, hilly

country and bare sands, lying in the semi-desert belt of erratic rainfall and scanty vegetation. Perennial streams are uncommon, except in the vicinity of Erkowit and the River Atbara which runs on the periphery of the region. Below I shall give a general description of the Hadendowa environment to show how it consists of discrete ecological regions.

The Red Sea Hills and the coastal plain

Rainfall in the area is characterized by wide fluctuations in both intensity and duration. But more important is the fact that the Red Sea Hills act as a mountain barrier dividing Hadendowa territory into two distinct regions with different rainy seasons. The goonob, a region which consists of the coastal plain and the eastern slopes facing the Red Sea, receives its principal rains in winter. Normally, these winter rains occur intermittently between November and February, during the same period when the cold north wind is blowing along the Red Sea. The winter weather in this region is exceptionally pleasant with moderate temperature and frequent cloudy periods. Conversely, the climatic conditions tend to be extremely severe during the summer months. This is because the whole coastal plain is afflicted by very high temperatures and prolonged dust storms, hababāi, which can occur from July to October.

The width of the coastal plain varies from 35 miles in the south around Tokar, to 15 miles, north of Port Sudan. However, in some places the mountains are too close to the sea, leaving no coastal strip. Stony stretches are the regular feature of the Red Sea coast. But, an exception to this is the area between Sawākin and Tokar where there are alternating patches of sand and clay deposits laid down by the numerous annual streams draining into the sea across this area.

The amount of winter rainfall on the coast is irregular and small, i.e., with an annual average of 75 mm at Tokar. Nonetheless, it produces a relatively rich grazing of ephemeral grasses and herbs. The effect of
such meagre rainfall is augmented by the concurrent mists and high humidity near the coast. Annually with the start of rains, two common species of grass "yedāb", Cenchrus cetigerus and "elāb", Aristida adscensionis, spring up on the clay patches. Also there are other important herbs like "shigahīg", Tribulus terrestris, "hamadīb", Indigofera arenaria, "okwad", Crotolaria microphylla, and "gwāreirāb", Heliotropium undulatum, which grow at the same time. All of these plants provide good grazing, particularly for camels. Moreover there are some perennial tussocky grasses of "shūsh", Panicum furgidum, and "tabbas", Losiurus hirsutus, which spread on the stony sites and usually flourish after the early rain showers. In addition the salty bush "adlīb", Suaeda frusticosa, grows abundantly along the coast and spreads further inland on the Baraka Delta. Various other thorn trees and bushes are found away from the sea on the hillsides. These are: "sāngāneib", Acacia tortilis, "delau", A. chrenbergiana, "tikr", Acacia mellifera, "agweb", Leptadena spartium, and "wahēb", Salvadora persica.1

The coastal plain is bordered by a steep range of rocky mountains, the Red Sea Hills, with some well known high summits like Erabēb, Derudeib, Umm Hadal, Erkowit, Sinkat and Gebeit. This area represents a unique climatic zone due to its altitude and its exposure to the sea mists. Winter rainfall and mists on the higher mountain peaks yield a vegetation of montane type such as "zaghōm", Euphorbia abyssinica in Erkowit area. The green "zaghōm" is believed to be poisonous, so animals are not allowed to graze on it unless it is dry.

The main winter-rainfall belt lies on the southern part of the Red Sea Hills. This region starts approximately at the latitude of Sinkat and extends southwards to the Eritrean Highlands. Hence the vegetation cover

1. For scientific names of these plants see Maxwell Darling, R. C., "Notes on the food of camels on the Red Sea coast and in North-Eastern Kordofan", Sudan Notes and Records, Vol. 21, 1938.
on this area is rather denser than on the drier northern hills where it is limited to sparse scrub bushes along the water courses. More important, these southern Red Sea Hills include marginal places, like Erkowit, which may also receive occasional summer rainfall. As a result of this, such places provide suitable grazing for the greater part of the year.

Finally, the possibilities for cultivation in this region as a whole are very small. This is due to the absence of wide clay stretches on the mountains; and the soils of the coastal plain are too saturated with salts. In addition, where cultivable sites are found, rainfall will be too little and unreliable. Nevertheless, the Baraka Delta provides an important agricultural area in the region. The Delta is a fertile plain of about 400,000 acres stretching between the Red Sea and the hills near Tokar town where the coastal plain reaches its widest extent. It has been formed from the alluvial deposits laid down by the floods of the Baraka river which overflows annually in violent spates, usually between July and September. The river flows down from the Eritrean Highlands and it is joined by several subsidiary seasonal streams before it discharges on the Tokar plain.

The local Beja tribes used to utilize the natural flooding of the Baraka Delta for grazing and cultivation of durra (Sorghum vulgare) and dukhun (bulrush millet). Then in 1867 cotton was introduced into the area by Ahmed Mumtaz Pasha, the first Egyptian Governor of Eastern Sudan during the Turkish rule. Later on, agricultural development was interrupted with the rise of the Mahdiya. After the reoccupation of the Sudan, flush irrigation was organized and cotton continued as the main cash crop. However, today the Hadendowa represent only 8.5 per cent of the tenants in the Baraka Delta. And even within this small percentage the majority come from settled individual families in and around the town of Tokar. The bulk of the tenants are Arteiga, Ashraf, Shaiyab and Beni Amer. Most of these are non-resident tenants, being either merchants in Port Sudan, Sawakin and
Sinkat, or herders who leave the scheme at the end of each agricultural season. The main labour force for sowing and picking is provided by members of the Beni Amer tribe and West Africans. The latter have either moved to the Delta from Kassala and Gedaref, or have settled in the region on their way back from the pilgrimage. According to the scheme tenancy record in 1973, there are nearly 80,000 permanent West African tenants.1

The Hinterland

The interior region to the west of the Red Sea Hills has its rainy season during the normal kharif, from July to September. Similarly, the rain here is precarious and sporadic, decreasing sharply from the south to the north. The mean annual rainfall varies from 230 mm at Kassala town to 25 mm or even less on latitude 19° north. There are no detailed records available to show this great variability over the whole region. However the following table illustrates the decrease in average rainfall from the south to the north on the Gash Delta during the period 1962-1972.2

Table 1. Average Rainfall in the Gash Delta 1962-1972

<table>
<thead>
<tr>
<th>Stations from south to north</th>
<th>1962-72 average rainfall in mm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kassala</td>
<td>230</td>
</tr>
<tr>
<td>Mekali</td>
<td>202.5</td>
</tr>
<tr>
<td>Degein</td>
<td>219.9</td>
</tr>
<tr>
<td>Tindlai</td>
<td>191.7</td>
</tr>
<tr>
<td>Metateib</td>
<td>175</td>
</tr>
<tr>
<td>Hadaliya</td>
<td>166</td>
</tr>
</tbody>
</table>

The following table shows the difference in monthly precipitation recorded at the Gash Delta Stations during the rainy season of 1971:

Table 2. Monthly rainfall in the Gash Delta during 1971

<table>
<thead>
<tr>
<th>Month</th>
<th>Kassala mm.</th>
<th>Mekali mm.</th>
<th>Degein mm.</th>
<th>Tindlai mm.</th>
<th>Metateib mm.</th>
<th>Hadaliya mm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>6.8</td>
<td>3.0</td>
<td>2.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>May</td>
<td>-</td>
<td>-</td>
<td>3.0</td>
<td>2.0</td>
<td>1.5</td>
<td>-</td>
</tr>
<tr>
<td>June</td>
<td>4.7</td>
<td>16.5</td>
<td>40.0</td>
<td>12.0</td>
<td>10.5</td>
<td>-</td>
</tr>
<tr>
<td>July</td>
<td>128.5</td>
<td>31.0</td>
<td>37.0</td>
<td>33.0</td>
<td>13.5</td>
<td>-</td>
</tr>
<tr>
<td>August</td>
<td>95.8</td>
<td>31.0</td>
<td>44.5</td>
<td>33.0</td>
<td>34.0</td>
<td>25.0</td>
</tr>
<tr>
<td>September</td>
<td>117.9</td>
<td>106.0</td>
<td>79.0</td>
<td>37.0</td>
<td>36.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Total</td>
<td>353.7</td>
<td>187.5</td>
<td>205.9</td>
<td>117.0</td>
<td>95.5</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Such uneven distribution of rainfall throughout the region has produced different climatic zones, and each has its characteristic type of vegetation. The range of this diversity extends from the low rainfall woodland savannah belt on the southern part of the Gash Delta to the semi-desert at the northern limits of the Hadendowa territory. The gradual slope upwards from the south to the north is the noticeable feature of the semi-desert region. This stretches across the Port Sudan-Kassala railway line from Derudeib to Gebeit. This is an area of bare sandy plains, dotted with hills and traversed by numerous seasonal watercourses running from east to west. Normally these watercourses flow in high spates for short periods following the rainfall on the mountains, and then remain dry for the rest of the year. The region receives occasional scanty rainfall from July to September which supports annually sparse pockets of grazing. Generally perennial vegetation is absent apart from widely scattered acacias in stream beds. However, further to the north waheeb (Salvadora persica) covers large sandy areas around the towns of Gebeit and Sinkat.

As one moves further eastwards from the railway line, the landscape...

becomes more and more mountainous towards the Eritrean plateau. Again this is largely arid country. Although rainfall is slight, a great proportion of it precipitates into the sandy beds of the wide watercourses. Relatively this has provided suitable sites for shallow wells all over the area. The natural vegetation is limited to annual grasses and dwarf acacias. Also dom palm (Hyphaene thebaica) spreads widely and in some places it becomes the main feature of the region.

On the western side, the region between the Gash Delta and River Atbara is known locally as sinayaib. The southern part of this area usually receives enough rainfall to support annual short grasses and acacias. But northwards this plain merges into an almost unrelieved desert, dominated by sand dunes and scattered thorn scrub. Fortunately, the River Atbara runs on the southern fringes of this desert. Normally the river is in flood from June to September, depending on the situation of rainfall on the Ethiopian Highlands.

The Gash Delta

We have seen how rainfall is irregular and sometimes may be negligible over the major part of Hadendowa territory. Nevertheless drought and harshness in the interior region are alleviated by the seasonal flow of the Gash river. This river rises in the Eritrean Highlands, about fifteen miles to the south of Asmara town, where it is called Mareb. It dashes down from an altitude of 2,000 metres above sea level, and is joined by many small tributaries until it enters the Sudan south of Kassala mountain. From here it comes to be known as the Gash, and it takes a wide, shifting, sandy course. The rainfall in the catchment area in Eritrea is comparatively high with an annual average of about 587 mm, but rather spasmodic. Thus the flood reaches the Sudan in the form of fluctuating

violent spates which are usually confined to the period from early July to late September.

The delta is formed from the heavy silt which is carried down annually by the flood. The waters burst into the Gash plains creating a fan-shaped inland delta (Map 2) of alluvial soil. It extends in length for about sixty-five miles from north of Kassala town to Amadam Station on the Port Sudan-Kassala railway line. The whole delta covers an area of 700,000 acres lying between latitudes 16°26' and 15°28' North and Longitudes 36°25' and 35°56' East. Occasionally, in years of exceptional high floods, the waters may reach as far as latitude 16°52' North. This extension includes an area known locally as Gash Dai which is the region north of the normal flood limits.

The accumulation of rich deposits in the Gash Delta over time has produced extraordinarily fertile silty soils known as lebad. These soils are highly permeable, absorbing large quantities of water to a depth of about eighteen feet. Significantly, lebad soils retain moisture for a long time. But such favourable soil characteristics are not persistent throughout the delta since lebad is predominant in the south-eastern part only. The prevalent type of soils on the other parts is the heavy cracking clay, badobe. The latter is less fertile than lebad and absorbs moisture more slowly.1 However, this classification of the Gash soils is not uniform because lebad and badobe intermingle in various places with sandy patches.

The southern silty deposits yield a growth of relatively thick grass cover, different species of bushes and large trees or even forests of varying depth in certain places. Generally large trees are abundant in the eastern part of the delta and in particular along the Gash course as well as on those sites which are frequently flooded by the overflow (balag). The most common species of these are talh (Acacia seyal), sunt (Acacia

1. Richards, op.cit., p. 6.
arabica), tarfa (Tamarix articulata), sidr (Zizyphus spina christi), and ushar (Calatropis procera) which dominate in the wettest, low-lying areas. On the other hand there are samr (Acacia tortilis), tundub (Capris decidua), sereh (Maerua Crassifolia), kitr (Acacia mellifera), and kurmut (Gadoba rotundifolia) scattered in different parts of the delta. 1 Beside that there are various grasses and succulent herbs of which dahassira (Indigofera pancifolia), haskanit (Cenchrus setigerus) and the tussock tumām (Panicum wirgatum) are recognized as the most nourishing pasture in the region. 2

The vegetation cover decreases gradually from the south to the north until it becomes sparse, poor scrub. Generally stunted acacias and dwarf bushes are the common features of the northern fringes of the Gash Delta.

In this section I have tried to show the diversity in climatic and ecological conditions of Hadendowa territory. The greater part of the area is unproductive, barren ground being classified as semi-desert or desert proper. The survival of human and animal populations in such a harsh environment may be inconceivable to an outside observer. But the Hadendowa have succeeded in maintaining themselves in it, withstanding long periods of drought and occasional states of semi-starvation. This perpetual endurance might have been partly possible due to the geographical position of their territory, being of varied climate and topography as well as having two alternate rainy seasons. The Hadendowa are fortunate in having access to an area embracing both summer and winter rainfall-belts. Moreover, the Gash Delta has always been a relief to the Hadendowa when severe drought hits the northern and eastern rocky slopes. On the western side, the River Atbara provides a relatively secure source of water when conditions get worse in the surrounding area. The adaptation of the Hadendowa to their environment will be the subject of the following section.

2. Ibid., "Development of Pastures in the Gash Delta".
Adaptation to the Environment

Traditionally the Hadendowa pursue activities of a mixed economy which comprises herding of cattle, camels, sheep and goats, with rain cultivation of *durra* (*Sorghum vulgare*). In 1923 flush irrigation was established in the Gash Delta where cotton was introduced for commercial production. More recently castor has replaced cotton as the main cash crop in the scheme. Although the largest part of the delta is allocated to the Hadendowa, few of them have changed their pastoral mode of life and settled in agricultural villages. Today, their main interest is to look after their herds and to raise food crops. In the combination of these two activities pastoralism has continued to be the dominant mode of livelihood while agriculture is pursued as a secondary activity.

It is difficult to estimate the size of the herds of the Hadendowa at present because the individuals are reluctant to give the actual number of their livestock, to evade the full payment of animal taxes. The following figures (in Table 3) are based on the official tax-lists for four different years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle</th>
<th>Camels</th>
<th>Sheep</th>
<th>Goats</th>
<th>Donkeys</th>
</tr>
</thead>
<tbody>
<tr>
<td>1924</td>
<td>26,000</td>
<td>10,000</td>
<td>50,000</td>
<td>50,000</td>
<td>3,000</td>
</tr>
<tr>
<td>1936</td>
<td>30,000</td>
<td>20,000</td>
<td>75,000</td>
<td>90,000</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>45,000</td>
<td>45,000</td>
<td>85,000</td>
<td>75,000</td>
<td></td>
</tr>
<tr>
<td>1967</td>
<td>110,000</td>
<td>68,000</td>
<td>254,000</td>
<td>76,000</td>
<td></td>
</tr>
</tbody>
</table>

However, these lists are conservative estimates for the assessment of taxes on mature animals only, and they are not compiled at regular periods of time or revised every year. Consequently such lists are inadequate for indicating natural annual growth in animal population, or loss due to contagious diseases. From the point of view of the administrative authorities, these figures are unreliable because they are prepared by tribal sheikhs whose interest is to keep down the amount of taxes on their
tribesmen. The officials in Aroma Rural Council believe that the 1967 lists might represent half of the Hadendowa total animal wealth.

Apart from animal husbandry and agriculture, many families supplement their livelihood by selling charcoal, firewood, straw mats, baskets and woollen rugs in the local markets. Such petty trades are found mainly in the eastern region and in the north where fibre mats and rugs made from goat-hair are brought down to the railway stations. At present there are no official records to assess the return from these minor products; but it was estimated in 1936 to amount to £E 16,700. Furthermore, some of the Hadendowa have been engaged in the trade of dom-nuts and fibre, taking advantage of the dom palm which grows abundantly on the eastern valleys and on the river Atbara. The dom fruits are gathered and crushed; the outer shells provide fodder for animals while the nuts are sold in the local markets for the manufacturing of buttons. However, this trade is now dying out and there are no recent records for the tribal income from dom-nuts. Nevertheless, the table below (Table 4) may show the magnitude of this trade, especially when during the nineteen-twenties it was flourishing due to the extension of the railway line into the region as well as to the international demand for this commodity.

### Table 4. Income from dom-nuts

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount of collected dom-nuts in tons</th>
<th>Total estimated price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1922-25</td>
<td>-</td>
<td>£ 11,000</td>
</tr>
<tr>
<td>1925</td>
<td>748</td>
<td>5,000</td>
</tr>
<tr>
<td>1926</td>
<td>3,530</td>
<td>16,000</td>
</tr>
<tr>
<td>1927</td>
<td>2,685</td>
<td>10,000</td>
</tr>
<tr>
<td>1928</td>
<td>2,300</td>
<td>13,000</td>
</tr>
<tr>
<td>1968-69</td>
<td>367</td>
<td>1,644</td>
</tr>
</tbody>
</table>

Another source of income is from dom trunks which are used as roof-beams in various parts of the Sudan. Today, this trade is almost monopolized by the riverains, though the local population is hired for cutting and transporting the dom-trunks on camels to the railway stations.

So far, I have outlined generally the traditional economic activities of the Hadendowa, emphasizing that herding is the major economic pursuit. In this pastoral adaptation, the animals are important because of their socio-economic base. The Hadendowa value their herds as a source of food, cash, social prestige and political power. Moreover, animals are used in different transactions to maintain reciprocal relations and to carry out kinship obligations. I would like to consider briefly the material uses of animals and their position in the social life of the Hadendowa. However, it may be difficult or meaningless in this type of economy to differentiate between material and social aspects of animals as the two are related intricately.

The staple food of the Hadendowa is thick porridge, o'atun, made of durra flour, eaten with milk or clarified butter. Although durra is an important item in their ordinary diet, milk is of predominant value to them. As has been mentioned in an earlier chapter, there is always a shortage of grain in the region, and thus for considerable lengths of time most families live on milk only. Although shortage in grain supplies occurs during years of drought which must inevitably affect pastures, it is more secure to depend on milk than on durra. This is because the Hadendowa have learnt by experience that even during periods of severe drought some animals can survive while it is impossible to grow durra. So they have become accustomed to rely on their animals as a safe source of food.

Therefore, it is essential for each family to have a number of milch cows, sheep and goats to provide the subsistence necessities of milk and butter. The most important livestock for milk production are cattle. Also the family depends on its herd as a source of cash to purchase its
daily needs of coffee, sugar, clothes and sometimes grain. Moreover, Hadendowa women are fond of brightly coloured clothes, of jewellery, scent and coloured rugs to decorate their tents inside. The well-built, decorated tent is a sign of high status, and the owner of such a tent gains prestige among her mates. When cash is needed either for such luxuries, or for basic commodities or to pay taxes, then calves and lambs are sold. Usually mature cows are not sold unless they are barren, while sheep are sold more frequently because they always retain high value on the market. The Hadendowa proverb, "ta'iyam bashuk marid", which means literally sheep is a cooked food, expresses the ease of selling them at a high price, and that they thus provide their owners with a secure source of cash. Therefore those who own sheep would not be in financial difficulties when money is needed. For this reason, sheep are more vulnerable to thefts and therefore they must always be kept under vigilant guard. On the other hand, goats are not highly valued since their prices on the market are very low and goat meat is not preferred by the Sudanese urban population generally. Goats are usually left to graze loose around the tents and they provide milk when it is needed casually during any part of the day. A lazy and indolent young man is described as being a goat-herd "yataigab". This is applied to a person who is of little or no use to his family.

Eating of meat and slaughter of animals are not common except during major social occasions like births, wedding ceremonies and funerals; and on the annual Muslim religious sacrifice. Nevertheless goats may be slaughtered occasionally for important guests and skins are tanned to make leather bags for water or milk; or to make leather strings. Female animals are seldom slaughtered as long as they are a potential source of milk.

Finally, camels serve mainly as a means of transport, especially in the past when the Hadendowa used to profit from this trade on the caravan
routes between Sawākin and its hinterland as far as Berber to the west and Kassala to the south. But the Red Sea-Nile valley railway link in 1905, and the Haya-Kassala extension in 1924, as well as more recent developments in motor transport have led to a decline in camel porterage. So a large portion of the Hadendowa population, particularly those who live in the north, is affected by this loss of an important source of income. Nevertheless, some members of the tribe are still engaged in the transport of cotton and castor on camels from the farms to the railway stations in the Gash Delta. The most admired type of camels are those which are known for their speed and ability to carry heavy loads over long distances. Female camels are milked, but this milk is not usually used in household consumption because camels are kept constantly on remote pastures away from families. Further, camels were used in the past for blood compensation which was one hundred she-camels for a man and half that number for a woman. But today, the compensation is paid in money. Since the payment of blood compensation is the responsibility of all members of the diwāb, camels cannot be sold or transferred to a non-agnate unless the consent of all members of the diwāb is taken. Besides that, women are excluded from inheritance of camels on the grounds that women may be married outside the agnatic group and if they inherited camels their share would pass to their descendants. Eventually the members of the diwāb may fail to provide enough camels for compensations in the future.

Generally, camels are kept by those Hadendowa who live in the north where climatic conditions are not favourable for cattle. Here, the average family may have about ten camels. On the other hand, rearing of camels is not common in the south, especially as the Hadendowa here are semi-sedentary and they are not in need of camels for carrying household equipment on seasonal movements. In addition, camels graze on separate pastures away from cattle and sheep, and this entails extra labour and different herding techniques. So most families find it difficult to
provide labour for both camels and cattle or sheep unless they are rich enough to hire herders. Accordingly, large herds of camels in the south are owned mainly by a few wealthy people and tribal leaders who have resources to provide the necessary labour requirements. Ultimately, such ownership confers prestige among the Hadendowa.

This discussion leads us to consider the social position of other animals in this society. The ownership of large numbers of cattle is also a sign of high status, and a means of generosity. When a family has enough milch cows, it will be able to entertain its guests and the surplus of milk is distributed among relatives who are in need. The Hadendowa are not accustomed to sell milk or butter and it is shameful to do so. Therefore, a man who controls a large supply of milk always attracts many guests from among his relatives and in this way he gains fame and good reputation in the diwāb or even in the lineage. He may increase his prestige still further by distributing some of his cattle as gifts to poor relatives who have no animals. The custom is to give a poor relative one or two cows (iha'mud) to provide his family with milk. The recipient usually keeps such a gift until he overcomes the problem of food shortage before he returns it. But certain gifts of cattle (ata'syād) are not returned because they are offered to poor kinsmen as a means of helping them to build their own herds.

These transactions of cattle ensure that no one family within the diwāb will go short of food as long as surplus exists. Therefore, through the control of cattle, the individual is engaged in a series of reciprocal relations to fulfill his kinship obligations and to secure regular supplies of food for his family. A further aspect of the social role of cattle among the Hadendowa derives from their association with marriage. The recognizable traditional bridewealth (osof) is two cows. Moreover, young men who own many cattle are exalted and admired for their control of resources. Every bride hopes to enhance her reputation by receiving a
number of cattle as gifts from the bridegroom. Finally, the scale of the wedding ceremony (ogau) depends on the size of the groom's family herd. Marriage is a significant occasion in the individual's life and it is an opportunity for every father to expose his generosity and wealth by slaughtering a number of bulls on the day of his son's wedding.

Similarly, sheep and goats are used in marriage transactions, beside being an important form of compensation for injuries and settlement of feuds. In addition to the bridewealth (osaf), there are two other transactions known as gwadāb and tonfi. Gwadāb is a customary gift varying from ten to fifteen sheep presented by the groom to be distributed among the paternal uncles and aunts of the bride. Tonfi is usually about eight sheep offered to the bride's maternal uncles and aunts. Further, a man is obliged to make contributions in sheep, goats or cash for the payment of blood-money and other compensations required from any one of his kinsmen. Furthermore, he is expected to offer help in forms of sheep or goats to other members of the diwāb on a number of occasions such as halaguin on marriage, o'oharis at circumcision of boys and togān during funerals.

Seasonal Movements

Although herding is the main feature of Hadendowa economic life in their harsh and variable environment, they are not a highly nomadic society in the full sense of the word. They are not engaged in regular seasonal migratory movements like the Baggara and the Kabībish in western Sudan or the Rufa'a Al-Hoi of the Blue Nile. The scattered, limited water supplies and poor pastures throughout Hadendowa country, and importantly their traditional territorial system which confines each diwāb to a defined territory, seem to preclude long seasonal migration on a large scale. Instead, the diwāb, or even more frequently, the independent extended family, tends to move irregularly over short distances within the limits of
its own territory.

However, in spite of this tendency towards territorial segmentation and apparent restricted movements, I am trying here to show the adaptation of the Hadendowa to their environment during different seasons of the year and in different parts of their territory. For the purpose of exposition, I divide the whole area into two main parts. These are the Gash Delta region on the one hand; and the rest of the Hadendowa territory on the other. The latter includes the northern region which consists of the Red Sea Hills and the coastal strip as well as the inland plains stretching across the railway line from Gebeit to the northern fringes of the Gash Delta. This region also extends south of the Erkowit hills to embrace the mountainous country lying between the eastern side of the Gash Delta and the Sudanese-Ethiopian borders. This is in addition to the western plains expanding from Sinkat southward to the River Atbara.

This area in the northern part is an arid country with poor scattered grazing and few sources of water. The whole area is thinly populated, they support only one-third of the Hadendowa population, rearing mainly camels and goats which can survive on short grass and thorny scrub. However, those diwābs who enjoy winter rainfall, particularly members of the Shāra'āb lineage, on the Erkowit hills, keep a considerable number of cattle.

The ecological conditions outside the Gash Delta do not permit large concentrations of population because water and pastures in a particular place cannot maintain a large number of animals. So the members of the diwāb do not always remain in a single territorial cluster, living together in one camp, but are split into four or five residential segments. The typical residential pattern of the Hadendowa in this area is a small family group of not more than three or four tents, living and moving together within the orbit of their traditional watering centre. Apart

from this, concentration of tents in certain places may occur temporarily, depending on the availability of water and grass.

As I have mentioned in the previous section, the Red Sea Hills generally, and in particular their eastern slopes, goonob, receive a winter rainfall. The Hadendowa who live in Sinkat and Erkowit areas graze their cattle on the eastern slopes during the period November-March. It is the task of young men to move down with the cattle, while old men, women and children remain on the tops of the hills. Normally a number of milch-cows known as thoma are left behind to supply the families with the daily consumption of milk. The weather on the main winter grazing area may be too humid or cold for camels and sheep; so these animals often spend this time of the year further down on the western slopes. Later in March or in early April both cattle and camel herds move back to join the families up the hills where they remain throughout the summer. During this season, the tents are scattered in small, isolated groups near the wells or pools while the animals wander haphazardly on the surrounding pastures. Camels and goats survive on the dry saghôm (Ephorbia abyssinica) and wahêb (Salvadora persica). Cattle and sheep graze on the relatively more luxurious grasses in the beds of the valleys.

About late July the main herds of cattle, camels and sheep start to move southwards and westwards down the slopes to be on the inland plains with the early kharif rains. Later some of the families might also follow their animals, delaying their movement as long as possible to avoid the hot weather and dust-storms down the hills. But the majority of the Hadendowa here prefer to stay permanently on the hills unless their water supplies are exhausted during the summer, then they will move down. They keep moving slowly and irregularly according to reports about grass and watering spots until they approach Derudeib on the Port Sudan-Kassala Railway line. Typically, they follow their usual residential pattern of small independent family groups pitching their tents at distances of three
or five miles away from each other. The mobility of these groups depends on the limits of their territorial rights and access to pasture on a'mara basis from other neighbouring diwâbes. Occasionally, the movements extend further southwards along the railway line, but normally it does not take them more than fifteen or twenty miles. During years of poor rains camels and cattle may travel as far as Odi and Tibilal plains in search of better grazing. By the end of September, kharif pastures will be over-grazed so the herds start returning to the hills. At this time the camels may be taken down the coastal plain to graze on adlib (Suaeda fruticosa) and other short grasses before the high humidity and cold weather force them to retreat to the western plains.

In the case of the eastern region, the amount of winter rainfall increases towards the Ethiopian borders. Here grazing and water supplies, though still sparse and limited, support a widely scattered population all round the year. The Hadendowa in this region are almost sedentary, though they live in small dispersed groups. Normally they spend most of the year around fixed well-centres in the sandy stream-beds. Their main animal wealth is still camels but they keep more cattle and sheep than those groups on the Red Sea Hills. A frequent supplement to the poor pastures is the dom-nut. However, during years of exceptional poor rains large numbers of cattle and sheep move westwards, either with or without the families, to spend the summer in the Gash Delta.

Though the chances for cultivation on the Red Sea Hills and the eastern region are very small due to scarcity and uncertainty of rains, sometimes the Hadendowa succeed in cultivating scattered plots of durra. But the agricultural produce is not sufficient for local consumption and more often one member of each family, at least, has to seek durra cultivation in the Gash or Baraka Deltas. Nevertheless, this alternative is not always possible as most of the families do not have enough adult men for herding and cultivation far away at the same time. More important,
there is great population pressure on the Gash Delta and the allotted area for durra cultivation is not sufficient to meet the local demand. Thus the Hadendowa in these regions are always short of grain and they have to buy most of their supply from local markets. However, despite the scarcity of rains with shortage in grazing and meagre cultivation, the eastern region of Hadendowa territory is still not as inhospitable or unpleasant as it appears.

The inland plains west of the Erkowit hills receive very poor rainfall and it is mainly a camel-herding area though some of the diwābs, particularly of the Hakūlāb lineage, keep some cattle as well. The population of the region moves about much less and tents may remain in position near the wells for longer periods. The camels survive for most of the year on thorn bushes and wahāb (Salvadora persica), which grows abundantly in the sandy water-courses. Cattle and sheep cannot endure the severity of the summer here, so they are more likely to be taken by young men to the Gash Delta from early April until July. Immediately after the start of intermittent showers in July or early August, the families spread southwards in search of slightly better pastures away from the overgrazed areas around the wells. During the same period the cattle and sheep herds start to leave the Gash Delta to join the families in the north. Each family group continues moving separately, making use of the scattered grazing and rain pools west of the railway line. Some of them may cross the line to the east to share the same pastures with the hill Hadendowa who come down from the Erkowit region. In December each family retreats to its traditional summer camping area and clears its wells to be ready for the long hot season.

In spite of poor rainfall and the extreme aridity of the inland plains, there are a number of seasonal streams like Derudeib, Khūr Arāb, Ingwātiri and Odrūs which provide narrow strips for the cultivation of durra. Another important area in this region is the fertile plain of Tibilol where cultivation may be successful during years of good rainfall.
The maximal lineages of the Shebādināb and Hakūlāb who own most of these plains are famous for producing considerable quantities of grain when they have the good fortune of slightly higher rainfall. Apart from this, cultivation is negligible and the majority of the people migrate from here to cultivate food crops in the Gash Delta. Those who remain behind sell charcoal, fibre mats and rugs made of goat hair in the local markets. The small amount of money which they get, helps them to obtain grain and other daily needs such as coffee, sugar and spices.

The Hadendowa who live between the River Atbara and the Gash Delta keep cattle, camels, sheep and goats. They move with their animals for short distances away from the river during rains. At this time of the year they intermix over pastures with some of the Amarar and Bishārīyyān sections in the region. The river dries out into isolated pools in winter. These pools provide water for the herds which move towards the river bank by January. The families either stay near the river for the whole summer or they may move further southeastwards to Gratit well-centre on the edge of the Gash Delta. The camels spend the summer grazing on the bushes and pods of acacias while cattle and sheep are usually sent to the Delta. The summer is a period of tension between the Hadendowa and the Shukriya who cross with their animals from the west to the east bank. Conflicts and disputes over grazing continue between the two groups until the flood prevents the Shukriya from crossing.

They have a good opportunity to cultivate durra and maize on the bank of the river or on the small islands after the flood recedes. In addition, Sinaaib plain is an area of tera cultivation which produces a fairly good food crop during years of moderate rainfall.

So far, I have been talking mainly about the northern Hadendowa who live on the Red Sea hills and inland plains. Now, I will turn to the Hadendowa in the south. The southern region is richer both in pasture and in water source and thus it is better able to support a larger pastoral
population. The largest concentration of the Hadendowa is in the Gash Delta where they live in camps of varying size from twenty to seventy tents. Here, the diwāb is always a territorial cluster as its members congregate in one single camp. There is a marked difference between these camps in the Gash Delta and those on the hills - where the population is scattered into small isolated groups of three or four tents. Large camps in the delta are not a new feature because Burckhardt reported in 1814 that he found the Hadendowa in the Gash Delta living in similar camps.¹ Today, a typical camp such as that of the Amrai diwāb from the Shāraāb lineage (sketch map No. 3) is to be found in Timintai forest on the north-western edge of the Gash Delta. It is composed of seventy-one tents occupying a stretch of about a mile along the delta margin, and has a population of 365 individuals. The camp is divided into twenty-six clusters varying in their size from two to nine tents. The cluster is a group of tents pitched close to each other which usually move together when it is necessary.

The Southern Hadendowa breed mainly cattle and sheep but they have in addition a few goats and camels. With the early flood of the Gash River, usually at the end of June or the beginning of July, the camps are moved to the open plains, to either the west or east of the delta. But during years of low flood most of the people may remain in the delta, pitching their tents on higher sites beyond reach of the flood.

By this time young herders, hanōnjāb, start their rainy seasonal movements, wahanōn, taking the animals to graze the annual grasses and herbs which grow after early rains on the plains east and west of the delta. The frequency of herd movements in this season depends on the situation of pastures and rainfall. Generally, pastures and water supplies are not sufficient for the animals to remain in one place more than three to five days. So they move frequently over short distances. Normally, old men, women and children do not follow the main herds, but stay behind camping in

¹ Burckhardt, J. Lewis, op.cit., p. 246.
one place near the delta with milch cows and goats.

After two or three months the rain pastures are overgrazed and the water-pools dry up. So at the end of October the cattle and sheep herds rush back at great speed towards the Gash Delta in order to be near the watering-centres. However, when they reach the fringes of the delta they are not allowed to proceed further into the agricultural area, so as to avoid damage to the crops. They continue grazing on the outskirts of the delta until the end of the harvest in February. During this period the animals come close to the fields, creating a constant threat to the cultivation and causing many disputes between the herders and the tenants. The administration of the Gash Delta Scheme has tried to protect the crops and reduce the scale of such disputes by providing a number of defined tracts on which animals can pass between the pastures and well centres. In addition, the administration maintains about twenty of these well-centres in the delta. Each well-centre is partially surrounded by banks to retain water during the flood and allow it to filter deep down into the ground. Underground water-supplies are limited all over the region due to the existence of a bedrock of basement complex.\(^1\) So the Hadendowa depend mainly on surface wells fed by infiltration from the Gash flood. These well-centres are confined to certain sites of good percolation, like sandy belts and the bed of the main Gash river. Otherwise, the largest part of the delta is unfavourable for adequate water supplies. Beside watering the well-fields, the administration of the scheme provide a number of hafirs to reserve more water from the flood for the dry seasons. Such water supplies maintain large numbers of people and animals during both winter and summer.

While cattle and sheep spend winter grazing near the Gash Delta, the camels are taken either to the western plain of Sinaib towards River Atbara or to the eastern plains on the Ethiopian borders. This is because camels

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do not need frequent watering during this season; and they can travel easily for long distances from remote pastures to the watering centres. More important, the Hadendowa are trying to reduce the pressure on the limited pastures near the wells and save it for cattle and sheep as both of these require daily watering.

After the harvest, cattle and sheep are allowed to move into the scheme area to graze on the stover and the shoots of green grasses. By the end of March the camps go back into the delta, each to its previous site and the tents are repitched in their usual arrangement under shady trees. Also, by now the camels return from their winter pastures to rejoin the rest of the herds on the delta. All the animals spend the summer in the Gash Delta where cattle and sheep graze on balage which yield a variety of rich grasses and herbs. The pastures here remain palatable for a long time even when the surrounding areas have dried up. Moreover, the ample trees and bushes provide favourable browsing for camels and goats.

Usually during the summer, there are crowds of animals coming from different parts of Hadendowa country. The scantiness of rainfall outside the delta, e.g., averaging less than 15 mm in the northern and eastern semi-deserts, has more often forced large numbers of herds to move towards the Gash at the beginning of every summer. The natural qualities of the delta soils allow them to absorb a considerable proportion of water and retain moisture for a long period after the rainy season. This has made it a secure area for grazing and cultivation even during years of general poor rains over the whole region.

It is clear from the foregoing description that the Hadendowa population is widely distributed over a vast area of variable rainfall and natural vegetation. This general picture may give the impression that their mode of livelihood and tribal subsistence also vary from one region to another corresponding to the change in ecological features. But in spite of the diversified climatic conditions and limited nomadic movements, the Hadendowa
as a whole still display the same pattern of economic organization. Although the main economic assets are camels and goats in the north, while cattle and sheep predominate in the south, the same principles underlying the allocation of labour in the household for production and consumption prevail throughout the tribe. Such coherence is maintained by ties of kinship and obligations, especially in defence of territorial rights, and common descent which operate in each maximal lineage to mesh together distant and isolated collateral diwābs. The nature of the Hadendowa territorial system has been a significant factor in this economic conformity. In spite of apparent loose and random localization of the diwābs, there is a regularity in the division of each maximal lineage between the northern and eastern rocky, barren sands on the one hand, and the southern fertile soils of the Gash Delta on the other. Map 4 shows the territorial distribution of the maximal lineages as explained in the following table.
### Table 5. Territorial distribution of Hadendowa maximal lineages

<table>
<thead>
<tr>
<th>The lineage</th>
<th>Territorial allocation of its diwabs</th>
</tr>
</thead>
</table>
| Samar'ar    | 1. Around Adar Aweib mountain to the west of Sawakin, along Khur Ashat and Tamai area. The boundaries of this territory extend due north-west from a point south of Sawakin to Kamobsana on the Port-Sudan-Atbara railway line.  
2. In the Gash Delta: between Metateib agricultural station and Golluseit north of Kassala town. The large concentration of the Samar'ar in this area is in Olaib, east of Metateib Station. |
| Gari'eb     | 1. In the Red Sea Hills: along the railway line around Irba mountain immediately north of Gebeit town.  
2. In the south-eastern part of the Hadendowa country along upper Khūr Girgir towards the Sudan-Ethiopian border.  
3. In the Gash Delta where they live in Egeir forest east of Tindlai village. Also some of them dwell on the plains west of the Gash Delta between Aroma town and Wagar village. |
| Hamdēb     | 1. They live mainly in the northern Hadendowa country: along Khūr Odrūs to the north-west of Sinkat town. Their territory extends from there southward to Okwur mountain west of Summit Station.  
2. They also claim, and live on, a number of territories to the west of the railway line north of Durdeib Station. |
| Bushariāb  | 1. Their northern territories lie on both sides of the railway line between Summit and Tehamiyam stations. This area includes Hammogor mountain and a'ishat area to the west of the line.  
2. East of the railway line between Angwatiri and Amadam station on the northern limits of the Gash Delta. Their territories here extend eastward to include Khūr Fagada near the Sudan-Ethiopian borders.  
3. The Bushariab are the predominant population in the Gash Delta south-west of Aroma town until Gratit well-centre on the outskirts of the delta. |

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<table>
<thead>
<tr>
<th>The Lineage</th>
<th>Territorial allocation of its diwaabs</th>
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<tbody>
<tr>
<td><strong>Emirāb</strong></td>
<td>1. Nearly all of their diwaabs are concentrated around Khūr Okwāk between Gebeit and Sinkat towns. A large number of them have given up pastoralism and settled permanently in Sinkat, Gebeit towns and in other villages on the railway line.</td>
</tr>
</tbody>
</table>
            2. In the Adargāwi area south of Goy Regeb on the River Atbara.  
            3. In the Gash Delta around Aroma town and Wagar village. |
| **Shara'āb** | 1. Their main territories are on the north-eastern slopes of Erkowit Hills which include W'a'angaita mountain and Khur Gwāb.  
            2. In the Gash Delta. They dominate Ragāgāt and Sāboon forests to the east and north-east of Wagar village. |
| **Wailaliāb** | 1. Southern Erkowit Hills, mainly around the mountains of Hadarāb and Erbāb.  
            2. The northern Gash Delta between Saboon in the east and Timintai in the west.  
            3. In the south-east part of the Hadendowa country, especially in Khūr Togān, extending westwards to the outskirts of Kassala town. |
| **Gūrhbabāb** | 1. Between Shediyāb and Musmar Stations on the Port Sudan–Atbara railway line, extending southwards to Khūr Arab.  
            2. Across the railway south of Haya Junction and moving eastwards to Odi plain.  
            3. In the Gash Delta west of Tindlai village.  
| **Shebudināb** | 1. North of Khūr Arab between the Gurhabab and Hamdab territories.  
            2. Further south of Khūr Arab in Tibilol plains towards River Atbara.  
| **Hakolab** | 1. West of Summit station of Khur Arab between the Busharāb on the east and Shebudināb to the west.  
            2. On both sides of the railway line from Deruḍeib to Angwatiti, scattering along the Khūrs of Dilay, and Gadamai. |
Table 5 (continued)

<table>
<thead>
<tr>
<th>The Lineage</th>
<th>Territorial allocation of its diwāb</th>
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</table>
| Hakolab     | 3. Their holdings in the Gash Delta lie in Tindlai area with the Gurhabab.  
|             | 4. A number of Hakolab diwābs are found on the River Atbara, between Goz Regeb and Adargawi, mixing with the Gaidab. |
| Gemilāb     | 1. They occupy Waribba mountains and hills which extend from Erkowit south-east until the Sudanese-Ethiopian borders.  
|             | 2. North of Maman mountains between the Samarar and the Bushariāb.  
|             | 3. Along the south-eastern boundaries of the Hadendowa territory with the Beni Amer tribe. |
| Samarendiwāb| 1. Odi plains to the west of the Gemilab on the Ethiopian borders.  
|             | 3. In the Gash Delta between Tindlai and Wagar villages. |
The diwābš from different lineages intermingle to share among them various types of land ranging from mountains and sand hills to fertile valleys and plains. Such traditional arrangement gives all members of the tribe access to the varying natural resources of their country. Nearly every lineage is widely dispersed with its diwābš both in the north and the south. At the same time, the ties of mutual help and reciprocal relations, operating on a kinship basis, extend beyond territoriality to embrace the whole lineage. While the ecological conditions have forced collateral diwābš to split into separate territorial units, still the division of the Hadendowa on territorial lines is rather an arbitrary one. This is because individual families or whole diwābš move from one area to another when it is necessary for climatic reasons. It is common to notice that during years of drought in one region, the diwābš affected move to join their kinsmen in other regions where they get help and share the available natural resources. Usually winter grazing on the mountain slopes (gonoob) and the coastal plain is a relief to many diwābš from the normal long, dry summer on the western plains. Similarly, when winter rains fail on the Red Sea Hills large numbers of diwābš move southwards to graze with their kinsmen in the Gash Delta.

Further, Hadendowa customary law of land tenure recognizes and safeguards the acquisition of usufructuary rights and thus allows for a wide range of individual and diwāb mobility from one region to another. According to the terms of the customary rules, individuals or groups can have access to pastures, water resources and cultivable land outside their aal territorial limits. The terms of this rule oblige the aal owners of the territory to allow for such usufructuary rights whenever they are requested.

Therefore we can say that the bonds of kinship, together with the characteristics of their territorial system and land tenure, have largely contributed to the economic cohesion of the Hadendowa. However, the differences between the combination of camels and goats in the north, and
cattle and sheep in the south is explainable on an ecological basis, but economic organization is influenced by the pattern of labour deployment and control of animals in the household. This will be discussed in Chapter Five.
The adaptation of the Hadendowa to their environment may give the impression that they lack tribal identity, because they are scattered in small family groups over a vast area. But in fact the whole tribe is unified by common kinship, by allegiance to one traditional political leadership and, more important, by collective territorial rights. Through the exercise of such rights in common tribal land the Hadendowa have maintained their tribal identity against other similar groups. Although the tribal unity of the Hadendowa is based largely on common descent, this unity draws its strength from a conspicuous consciousness of common attachment to a traditional territory. Significantly, ties of descent are socially and politically more effective when they operate within this territorial framework. So the political cohesion of the tribe against outside groups is particularly strong over issues involving territorial rights. The Hadendowa regard their asl rights as sacred and irrevocable. Hence they always repeat their favourite and standard phrase "o'hash hasoun, balad baladoun", which means "the land is our land and the home is our home". All the members of the tribe share the view that land ownership is of pre-eminent importance to them, and thus rights in land occupy a central place in their political and social life. They have established their existing territorial rights through a long series of wars in which the whole tribe took part. Consequently those territorial conquests have become an integral feature of Hadendowa history and culture. This basic attitude towards the ownership of land, and the cultural values attached to it, prevail strongly in their relations with neighbouring Beja
tribes and other different ethnic groups in the region.

In spite of the exclusiveness of their territorial rights there are certain circumstances which lead to the presence of a heterogeneous population on their land. The Hadendowa are geographically central, encircled by other nomadic populations, and their environment is attractive to nomads because of its relatively rich pastures and secure water supplies, especially in the Gash Delta. Because of this, the Gash Delta has always been a potential area for inter-tribal competition. First the Amarar occupy rather a compact territory between the Hadendowa northern boundaries and latitude 21 North. This area includes the hills north and west of Port Sudan town, and extends to the South-West across the western slopes up to Musmar. From there it advances Southward over the plains between Khor Arab and the River Atbara, overlapping with Hadendowa territory in some places. So the country of the Amarar consists mainly of barren mountains and rocky slopes. The Amarar are traditionally camel owners with a few sheep and cattle. But today the Nurāb, who constitute a large section of the Amarar, have moved southwards and established grazing rights in the Gash Delta, and thus keep a considerable number of cattle.

Second come the Bishāriyyīn who live on the narrow coastal plain from the Amarar boundary at Dangūmāb, north of Port Sudan, to the Egyptian border. They also have the Atbai plain which embraces the area between the Red Sea hills and the Kassala-Northern provincial boundary to the West. Bishāriyyīn territory is the most barren area in Eastern Sudan, supporting only herds of camels and goats. So the Bishāriyyīn have been moving steadily southwards, on a large scale, due to the harsh ecological conditions in the north. More recently a main section of the tribe, the Bishāriyyīn Um Nāgi, has succeeded in consolidating its position on both sides of the River Atbara between Sidon and Goz Regeb. Accordingly, there is an increasing encroachment by both the Amarar and the Bishāriyyīn in Hadendowa territory on the western plains.
as well as on the eastern bank of the River Atbara.

Finally, Beni Amer territory, which lies mainly in Eritrea, extends into the Sudan to the east of the Hadendowa between the Baraka Delta and the Ethiopian frontier. There are numerous sections of the Beni Amer intermixing with the Hadendowa around Tokar and they engage mainly in cotton cultivation on the Baraka Delta. However the pressure from the Beni Amer on Hadendowa land is continuously increasing due to successive years of drought and war in Eritrea.

Thus the Hadendowa find themselves in acute competition for their own pastures and water sources with all these nomadic peoples from the surrounding areas. For example the Shebodînâb lineage is in continuous conflict with the Bishâriyyîn over grazing and rain cultivation land in Tibilol plain and on the River Atbara. Similarly, the members of the Smarar lineage are in a state of endless dispute with the Amarar and the Arteiga on the northern Hadendowa boundaries near Sawâkin. Also the Gemîlîb are struggling hard on the south eastern parts to hold back the Beni Amer with whom they compete for scanty pastures and limited water resources. Further, there is a constant friction between the Gurhabîb lineage and the Shukriya who encroach in Hadendowa country east of the River Atbara, particularly during the summer when it is easier to cross the river.

Moreover, the Rashâida intrude into the territory of the Hadendowa from all directions and violate Hadendowa customary rules relating to land in and outside the Gash Delta. The Rashâida are believed to be the most recent nomadic population to arrive in the Sudan. They migrated from Arabia across the Red Sea, probably in 1846. Today the number of the Rashâida amounts to 30,000, and they are mainly camel herders who have no territorial boundaries of their own like other nomadic tribes in the region. So they intrude into Beja country, especially Hadendowa territory, from all directions on their

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1. Macmichael, H.A., *History of the Arabs in the Sudan*, 1967, vol. 1, p.345. But according to Ali Abdalla, Omda of the Rashâida/Zeneimat, they have been settled in the Sudan since about 1819, or just before the Turkish invasion of 1821.
movements between Eritrea in the south and the Egyptian borders in the north. Since their arrival in the Sudan, the Rashaida have remained in isolation from the Beja tribes among whom they live. Therefore, they preserve their own cultural characteristics and ethnic identity. Besides herding the Rashaida are involved actively in the profitable camel trade between Egypt and Eastern Sudan.

While the centripetal attraction of the rich Gash pastures always induces other indigenous Beja tribes to compete with the Hadendowa for grazing, the development of the Gash Delta agricultural scheme in recent years has drawn a number of non-Beja groups into the area. The new-comers form a heterogeneous population of West Africans, riverains, Ethiopians and Yemenis. These immigrants congregate in the new villages which sprang up concomitantly with the establishment of the scheme. In spite of the cosmopolitan nature of these villages, each group has retained its ethnic and linguistic identity by sticking to a particular cluster, while Arabic serves as a "lingua franca". These villages are similar in their ethnic composition. The Hadendowa have kept themselves away from such villages and clung to their traditional camps on the outskirts of the scheme.

The conglomeration of West Africans, Hausa, Fellata, Bornu and Bergo, constitutes the main agricultural labour force in the Gash Delta. The settlement of these groups in eastern Sudan probably started with a number of transient Muslim pilgrims from West and Central Africa. Some of the pilgrims stopped in Kassala region on their way to and from Mecca, to earn their livelihood during the journey. By the time of the Reconquest of the Sudan in 1898 there were a few West Africans who had already established permanent residence around Kassala town. Then during the following years, their number began to increase gradually, and some of them moved to the

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Gash Delta where they worked on the cultivation of the Shaiyotes. The population of those early West African cultivators was estimated to be about 700.\(^1\) The main wave of West African migrants into the region came later on with the beginning of canalization in the Gash Delta in 1923. During that period large numbers of them moved from Kassala town to the Delta in search of hired labour and allotments for cotton cultivation. The flow of migrants varied from one year to another according to the proportion of land allotted to them. But from the 1930/31 season the administration of the scheme encouraged the settlement of more Hausa and Fellata in organized villages throughout the Gash Delta. That policy was adopted to overcome the problem of labour shortage created by the Hadendowa who deserted their tenancies. The purpose was to secure a permanent labour supply for canal works, and the sowing, weeding and picking of cotton. So the West Africans were allowed to cultivate the tenancies of the Hadendowa on the basis of crop-sharing, and their settlements were made more permanent by providing them with constant water supply through pipe-systems. Large communities of West Africans have developed with a continuous growing population which at the present time can be about 36,000.\(^2\)

Most West African migrants live in straw huts, though a few of them have built mud houses. They are engaged mainly in agricultural activities, except for a conspicuous group of Fulani called Mello who are cattle owners. The members of this small group live in tents of fibre matting which are distinguished from those of the Hadendowa by their oval shape. Although Mello have been in Beja country for about seventy years only,\(^3\) they show a great readiness to adopt the former's way of dress and hairstyle. The

3. Paul, A., *op.cit.*, p.146. The Mello settled in the region during 1901-2 on their way back from Pilgrimage; originally they are from Timbuctoo.
Mello have this adaptability in accommodating to some of the Beja customs and habits without intermixing with the local population. They have maintained their tribal identity by refraining from outside marriages, even with other West African groups in the region.

The second largest group of immigrants are the Jaaliyyin, Sha'iqia, the Manasir and Danagla. These people have been attracted to the region since the inception of the Gash Delta scheme in 1924 by the prospects of making profits out of cotton cultivation. They took up much of the commercial business, together with the small group of Yemenis, which grew with the development of agriculture and the construction of the Haya-Kassala railway line. Today, the riverains represent the entrepreneurs, shopkeepers, lorry drivers and contractors for Governmental buildings, the construction of canals and embankments in the scheme. Thus they have assumed an important role in the economic life of the region.

So far, I have tried to show the tribal and ethnic composition of the population in Hadendowa territory, particularly in the Gash Delta. First there are sections of Beja tribes who share with the Hadendowa the same language, ethnic origin and pastoralism as their mode of livelihood. More important they have a common cultural background with similar forms of social institutions and principles of tribal organization. Although each Beja tribe has its own independent genealogy and a traditional territorial setting, there is a great deal of assimilation and movement among them. But in spite of these common features among the Beja tribes, they have different political leaderships and historical traditions. Also they are further differentiated by their religious and political allegiances on the national level. As I pointed out, the Amarar, Bishariyyin, Beni Amer and the Halanga are largely followers of the Khatmiya religious sect. On the other hand, the tribal leadership of the Hadendowa adheres to the Ansar and it has supported the Umma party persistently. However,
allegiance to Mahdism is not widely spread among the Hadendowa, though they have been associated with the Mahdists movement in eastern Sudan.

Second, there are the riverains and West Africans, two ethnic and cultural groups different from each other and from the Hadendowa among whom they live. Finally, come the Rashaida who form a distinct element, different from the Hadendowa in many respects e.g. language, culture, principles of social organization and values associated with it.

Despite these differences, the agricultural development and administrative organization in the region have created a kind of interdependency and reciprocal interests among various groups. The pastoral Hadendowa come to the village markets in the Gash Delta to sell their animals and other minor products. In return, they purchase their daily needs of grain, coffee, sugar, clothes and other commodities. Moreover, the Hadendowa rely on West African labourers to carry on the agricultural work, while they themselves continue their herding duties. On the other hand both riverains and West Africans obtain cultivation plots from the Hadendowa, either on crop-sharing terms or for an annual rent. Besides that, different groups living in Hadendowa territory are united by one administrative system, and they interact with each other in tribal courts and assemblies. I have mentioned in chapter 2 that the administrative organization is based on the Hadendowa tribal structure. At the head of the administration is the Hadendowa Nazir who is also the president of the main court with judicial authority over all various groups living in the territory. Further, the whole area is divided territorially into five administrative units, khat, each under direct responsibility of one Sheikh. So the heterogeneous population of the Gash Delta comes under the authority of a single Hadendowa Sheikh.

In spite of the unifying economic and administrative factors, the inherent cultural differences and the conflicting economic and political
interests within such diversified population come frequently to the surface, causing inter-group tensions and acute administrative problems. One important factor hindering the resolution of these problems is the basic contradiction in the administrative system itself. While the administration is based on the Hadendowa tribal structure, it operates in an area which includes a mixed population whose customs and values are different from those of the Hadendowa. Here appears the incompatibility of the tribal institutions with the economic and political interests of the urban population in the Gash Delta. Below, I will discuss the relationship between the Hadendowa and other Beja and non-Beja groups, with a special reference to territorial rights.

**Hadendowa and other Beja Tribes**

Traditionally, the Hadendowa recognize that some individual members and groups of other Beja tribes have acquired a'rama rights in their territory. They regard these groups as guests whom they allow to live and graze with them in order to show good neighbourliness and recognize their cultural affinity. At this level, the Hadendowa inter-tribal relations operate within the wider framework of Beja culture. These relations are sustained by reciprocal interests between the Hadendowa and the rest of the Beja tribes. The exchange of gwadāb is an important mechanism in the stability of inter-tribal relations because it ensures the sovereignty of asl owners over their territory, as well as giving its payer continuous usufructuary rights. Thus the Hadendowa always emphasize the importance of the gwadāb payment, though it may be nominal and of insignificant material value. Even under modern conditions, the Hadendowa resent any attitude which implies that the strangers are living in their territory as real owners of the land. Consequently, the neglect of the gwadāb provokes the Hadendowa and creates tension in their inter-tribal relations. Such situations lead
acute conflicts over grazing and cultivation rights between the Hadendowa and their neighbouring Beja tribes.

However, land disputes of this kind have always been settled by conciliation and arbitration in terms of the Hadendowa customary law which is recognized by all Beja tribes. Usually the administrative authorities submit such cases to tribal councils, wagab, which consist of representatives of the disputants, in addition to impartial members who are acknowledged as expert in the interpretation of customary law and tribal genealogies. The administration has been working successfully through these tribal councils, partly because the disputes on this level involve people of the same ethnic origin, who share one language and cultural background. This is an important factor contributing to the resolution of land disputes between the Hadendowa and their neighbouring Beja tribes, and consequently reduces the contradiction, which I mentioned before, in the administrative organization.

Nevertheless, the settlement of inter-tribal conflicts is frequently impeded by differences in allegiances to national political parties or adherence to various religious orders, particularly between Khatmiya and Ansar. The effect of the political and religious divergences in stirring up, and aggravating, disputes can depend on the political situation in the country as a whole. The conflict is usually augmented by national elections or political disturbances. Moreover, climate in the region is another factor affecting the relationship between the Hadendowa and other Beja tribes. Scarcity of grazing and rain cultivation during periods of drought creates acute conflicts over land, especially in the arid northern part of Hadendowa territory. On the other hand, the Hadendowa always show readiness to make more concessions in both pastures and cultivation land to other tribes during successful rainy seasons. Such concessions are usually made in those areas where there is no population pressure threatening their own pastoral interests.
According to all these factors, defence of territorial rights against external encroachment has become the most frequent situation in which the Hadendowa common agnatic descent ties are activated to unite the whole tribe. Such manifestations of tribal unity have been recurring persistently in support of the Samarar lineage in its long-standing dispute with the Arteiga and Kimeilāb around Sawākin. Some sections of the Arteiga, mainly the section of the Hansīlab, have been living in the neighbourhood of Abent on khor Tamai for the last seventy years.¹ This area is believed to have been originally owned by the Arteiga who settled there before the Hadendowa. But the Hadendowa being numerically superior and more hostile expanded against the Arteiga, pushing them into the barren corners of the Red Sea Hills. The Arteiga finding themselves as a minority and in a weaker position, accepted the right of the Hadendowa in the area, a right which was established by conquest. So they moved back gradually to their old home and acquired A'mara rights in grazing, wells and cultivation land from the Samarar lineage. Since then, the Samarar have been raising frequent claims against the Arteiga whenever they felt that their right of asl was threatened or not fully observed by the users. More often affrays and fights occurred between the two groups, particularly when the Arteiga started to repair old wells, to open new ones or to extend their cultivation area without taking the consent of the asl owners. Such neglect of tribal customs provoked the Hadendowa who would immediately stop the Arteiga from continuing to use the area. However after a series of hostilities and complaints from the two sides the case would be submitted to a tribal council whose decision always gave the Samarar asl right and the Arteiga right of A'mara.

¹ This is according to the historical traditions of the Arteiga.
A second example of friction over land is that between the Samarar and the Kimeilāb in khor Ashat, near Tokar. Here, the Kimeilāb are accustomed to cultivate food crops during rains and graze without admitting Samarar asl ownership and they have refused to pay gwadāb to them. So the Kimeilāb are claiming asl right in khor Ashat and not a'mara only. On the other hand, the Samarar claim the right of asl ownership along the whole khor, although they are living away from it, and they have neither wells nor cultivation plots in the area under dispute. In spite of that the Hadendowa tribal leaders maintain that the customary law has no such limitation and claim that the Samarar are entitled to receive gwadāb from the Kimeilāb who are living here as usufructuaries because traditionally this area is a part of Hadendowa territory. Actually khor Ashat is the most important cultivation and grazing area in the neighbourhood. This is because there is a wide plain of rain cultivation around it in addition to patches of suitable soils for cultivation in the khor itself. But the Hadendowa find that the number of Kimeilāb is increasing in the area, as they make use of the opportunities created by the Baraka Delta Scheme. They feel that more Kimeilāb are infringing on their rights causing population and animal pressure on both cultivation land and pastures. So Hadendowa policy is intended to stop further agriculture development in the area, and they have been aiming for a long time at the exclusion of the Kimeilāb from khor Ashat, hoping to preserve it for grazing only in the future. The Hadendowa support their claim by alleging that the Kimeilāb have come to the region recently escaping from Dongola, in the Nile Valley, as a result of a blood feud. However, the Kimeilāb refuse to accept the allegation on the grounds that they have been grazing and living in khor Ashat since Turkish rule. Actually the origin of the conflict between the two tribes goes back to that period because the Kimeilāb were supporting the Turks against the Hadendowa. More recently,
the animosity has been further increased by the strong allegiance of the Kimeilāb to the Khatmiya, religiously and politically, while Hadendowa leadership is closely associated with the Ansār.

Following one such incident, over a dispute over land, twenty-three leading Hadendowa Sheikhs representing all lineages in the tribe, together with the Nazir, presented a petition to the authorities, saying in it:

"We beg to bring to your kind knowledge the fact that the Hadendowa have occupied their boundaries since the Funj reign and that occupation was an outcome of continual wars and it was not won by peace or given rights. You are no doubt aware that we are accustomed to protect our interests and settle our rights by war; but in compliance with Government orders and regulations we are compelled to claim our land by peaceable talks and amicable ways. The history of the land in question is that as soon as we had finished with the Funj reign, the boundaries were distributed by Hadendowa leader Sheik Wail Ali giving the Samarar the area along the Red Sea between Tokar and Sawākin. So we were the owners of the land and the Arteiga or the Kimeilāb had no rights in Tokar. During the Turkiya the government powers were only confined to the towns and no one could leave the towns unless paying the Hadendowa certain dues to safeguard their lives and property. The Arteiga and Kimeilāb have only started to claim rights in land around Tokar and Sawākin more recently. Both the Arteiga and Kimeilāb are towns inhabitants and they are well acquainted with methods of evasion and they know how to gain the pull. Therefore they are endeavouring to take our lands by means of modern politics. We should also say that neither the Arteiga nor the Kimeilāb had any tribal administrative power, and we do not recognize any territorial boundaries except for the Amarar, Bishariyyīn, Beni Amer and the Shukriya."¹

It is clear from this petition that the attitude of the Hadendowa towards the Arteiga and Kimeilalab is not only a manifestation of competition for pastures, but it can also be a reflection of their anxiety about their traditional territorial rights which they have established by conquest. They are concerned that these rights may be lost gradually under the changing modern conditions. Recently, the Arteiga and Kimeilalab have strengthened their position by making use of the development of Baraka Delta agricultural scheme. The members of these two tribes constitute the majority of the tenants in the scheme and as a result of that their economic influence in the region is increasing. The local administrative authorities give them most of the market trading and other contracts for the construction of buildings and roads and for transportation. The Hadendowa have come to realize that the Arteiga and Kimeilalab, who were formerly insignificant minor tribes, are gaining more power in the region due to their superiority in modern urban qualities. The sword is no longer a means of establishing rights in land and the Government regulations recognize, and are obliged to, protect usufructuary rights regardless of tribal affiliation. So the Hadendowa always struggle to prove that these minor tribes are living in the region as usufructuaries and not as real owners, and in this way the Hadendowa preserve their pride as the owners of the land. This attitude, as one of their British District Commissioners commented forty years ago, "is a manifestation of a feeling that is widely spread among the tribe, more especially among its leaders, and which continues to colour their relations with all tribes whom they have contact. This feeling is a sort of inferiority complex. It is a fear that in these days, when the tongue is mightier than the sword, the dominion and Dar won in former days by the Hadendowa sword will be little by little lost to them. This apprehension - or misapprehension - is making them in various circumstances to assert
themselves where assertion is unneeded, to see encroachment where no one has encroached on their rights, to be provocative or easily provoked in their tribal relations and in general to be as jealous as Jehovah."

What was written about the attitude of the Hadendowa towards their territorial rights more than forty years ago is also true at the present. Nevertheless, this attitude is not a manifestation so much of an "inferiority" as of a "superiority" complex. As I suggested before, this superior feeling is partly an aspect of Hadendowa history, a history which is characterized by conquests and expansion against neighbouring Beja tribes. So the Hadendowa have become accustomed to putting forward these claims about rights in land whenever they can find a chance to affirm their historical supremacy. Further, one can explain these claims in terms of more recent economic, political and religious processes articulating the inter-tribal relations at the present time. So the feeling of superiority among the Hadendowa is not purely historical since it arises partly from the position of their leadership in the Native Administration of the region. I mentioned above how the administration has been set up to enable the Nazir of the Hadendowa and his Sheikhs to administer all the various groups living in their territory. As a result of this policy, all the minor Beja tribes like Arteiga, Kimeilāb, Shaiyāb, Segolāb and Melhitānāb have been amalgamated into the Hadendowa Nazirate and brought under its control. Among the Hadendowa generally, and their tribal leadership in particular, this has created a paternalistic attitude towards these annexed groups. Thus the recent administrative organization helps to maintain the historical supremacy of the Hadendowa and has moreover introduced a new authoritarian element which characterizes the attitude of the leaders in dealing with other Beja groups who are under them. So we notice from the petition quoted above that the Hadendowa do not recognize any attempt to establish independent administrative organizations

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1. Kassala Province, File No. KP/66/F/4/5-1, August 1933.
or territorial boundaries for the Arteiga and Kimeilāb. Because of these circumstances the Hadendowa sustain their influential position in the whole region and this contributes to the prevalence of their power under modern conditions.

However, one has to be fair to the administrative policy, and we must not overlook some of its positive achievements. A complete evaluation of this policy is beyond the scope of the foregoing discussion, but one of its important achievements is the establishment of a relative security in the region. The amalgamation of various minor groups in the Hadendowa Nazirate has satisfied the political interests of the tribe's leaders whose position in the local administration depends partly on their success in maintaining order and stability. It is in the interests of these leaders to avoid open hostilities and conflicts between the Hadendowa and other groups. They have tried to consolidate their position as successful leaders capable of protecting minorities under their administration. The maintenance of security is the main support which these leaders have in their claim of authority over the whole population within Hadendowa territorial boundaries. The policy of amalgamation, despite its political disadvantages to minor tribes, has been the only convenient measure against the expansive tendency of the Hadendowa. In their turn, Hadendowa leaders have tried to make use of this policy to dominate minor Beja tribes, but they frequently oppose it when it collides with their own political, economic and religious interests.

**Hendowsa - Rashaida relations**

There is a continuous conflict between the Hadendowa and the Rashaida over territorial rights in and outside the Gash Delta. This conflict has raised several complicated administrative problems as it lies between two
populations of different cultures. The Rashaida are not Beja, and in consequence they do not recognize or appreciate the Hadendowa values in relation to ownership of land and utilization of natural resources, whereas other Beja groups do. So the Rashaida have refused persistently to observe the differentiation between territorial right of asl and a'mara. They claim that all land has come under Government control by the Land Ordinance of 1918,¹ and accordingly the whole population of the area, irrespective of tribal affiliation, must have equal access to it. Thus they frequently violate Hadendowa customary rules relating to territorial rights, and refuse to pay gwadab to the Hadendowa. The Rashaida graze and water their animals and do a little cultivation in Hadendowa territory. They justify their refusal to pay gwadab on the grounds that they are paying official taxes to the Government in return for which they expect to secure their rights in pastures, watering sources and agricultural land.

The problem of the Hadendowa-Rashaida relationship is not only an ethnic conflict, because there are other factors which increase its effect. Importantly, the Rashaida are primarily camel-herders while the Hadendowa in the Gash Delta depend largely on cattle and sheep. According to the Hadendowa herding organization camels must be kept away from watering points, and they are allowed to graze only at some distance from such places. The Hadendowa follow this arrangement in order to preserve the pastures around the wells for cattle and sheep. This is because camels can always survive on thorny bushes and endure long journeys between distant pastures and wells. Moreover, it is essential to keep cattle and sheep at a reasonable distance from wells as they need to be watered daily while camels do not. Thus whenever cattle and camels compete for insufficient pasturage, cattle always have a priority and camels will be taken to graze elsewhere. But the

Hadendowa complain that the Rashaida do not comply with this customary grazing system and they do not follow the accepted arrangement. The Rashaida camels are said to overgraze the pastures around the wells and pools leaving no grass for the cattle of the Hadendowa. Also the Hadendowa claim that the Rashaida destroy the trees in the Gash Delta by chopping the branches and shaking down the pods for their camels, an act which curbs the development of trees.

Because of these conflicting interests in pastures, fights and affrays occur continuously between the Hadendowa and the Rashaida. At each incident, the Hadendowa leadership insists on punishing the Rashaida who are intentionally ignoring the tribal customs by infringing Hadendowa territorial rights. On the other hand the Rashaida, who deny the claims of the Hadendowa to traditional rights in land, constantly resent having to submit themselves to the Hadendowa authorities or to accept the judgement of a tribal council. Their agitation is always that they are not Beja and therefore they are not obliged to follow the procedure of Hadendowa customary law in the settlement of disputes over land. Instead, the Rashaida insist on presenting their disputes with the Hadendowa to civil courts where, they say, every party receives its punishment irrespective of its tribal adherence.

After a subsequent series of hostilities and aggression between the two groups, the Rashaida will usually reverse their position and agree to submit themselves to a tribal council which includes impartial members from the neighbouring tribes. The Rashaida have no other choice than to make such a concession. First, they are a minority and they always need security to protect themselves and their animal wealth from being attacked and plundered by the Hadendowa. Second, they need grazing and watering points and these are controlled by the Hadendowa. Third, there is a continual
official pressure upon them to recognize Hadendowa sovereignty in the region. Thus they are compelled to reconcile and to accept the Hadendowa terms for the settlement of conflicts.

The decisions of such tribal councils normally recognize and affirm the Hadendowa entitlement to usufruct ownership, and their right to receive gwadab from the Rashaida on wells, grazing and cultivation. According to these specific terms and under certain conditions the Rashaida are allowed to water their animals in the Gash Delta provided that they get annual permission from the Hadendowa leadership. Moreover, they have to comply with the grazing system adopted by the Hadendowa. So the Rashaida have to take their camels out of the Gash Delta immediately after watering and keep them constantly west of the Port Sudan-Kassala railway line. Similarly, they have to take annual permission before cultivating, either in the Gash Delta or outside, and this permission would not be granted unless they paid the traditional dues to the Hadendowa. The grazing agreements give the Hadendowa the right of refusing such permission during years of poor rainfall. The following is a form of agreement which is taken by the local administration as the basis for settling any dispute between the Hadendowa and the Rashaida.

"We, the Rashaida, acknowledge that the land on which we graze and water our animals is the property of the Hadendowa tribe. We have no right to claim its ownership to ourselves. We agree to water our camels on the western side of the railway without a special limit to the number of wells. But if we like to dig wells in the Gash Delta, we shall limit the number to twenty wells only; and we must take our animals outside the Gash Delta immediately after watering them. We have to graze on the western side of the Delta as far as the River Atbara, but we have no right to graze inside, or to the east of, the Delta. We agree to cultivate on Hadendowa land after paying them the usual dues i.e. each cultivator 100 m/m on sowing and eight rubas of durra at harvest period for each plot. Further, we have

to comply with the instructions given by the leaders of the Hadendowa when we want to cultivate on terases. We must take permission from the owners of the terases or from the Nazir representatives in the area. In case they refuse to grant us cultivation plots we have no right for further claims. Should the kharif be poor and the pastures would not be sufficient for the animals of the Hadendowa tribe, we have no right to put forward any claims for pastures as well as for cultivation."¹

These settlement terms demonstrate that the Hadendowa basically control their territory, and the Rashaida are constantly forced officially to adhere to the Hadendowa customary rules in regard to the ownership and use of land. The leaders of the Hadendowa always insist on the annual renewal of such agreements to ensure their title to the land and safeguard their position against the increasing pressure from Rashaida population. The Rashaida are large owners of camels in the area, so they constitute the main threat to the pastures of the Hadendowa. Although the Rashaida accept the terms of these agreements, they realize that such terms are unsatisfactory for them and they do not provide a permanent resolution of their problem. So they follow their camels across Hadendowa territory and trespass wherever they can get grazing. Normally an agreement between the two tribes breaks down after a short period and hostilities start once again. Thus the relationship between the Hadendowa and the Rashaida is a series of hostilities with intervals of temporary settlements. The relationship between the two tribes has never been cordial, and usually the tension increases during the summer when the Rashaida drive their large herds of camels into the Gash Delta.

Further, the factors straining the Hadendowa-Rashaida relationship are

more than competition for pastures, or cultural conflict between two ethnic groups. There is in addition a historical enmity between the two tribes inherited from the Mahdiya wars. The Rashaida being supporters of the Khatmiya religious order, were raided and plundered severely by the Hadendowa during the Mahdiya period. The whole tribe fled to Eritrea and remained there until the Sudan was reoccupied by the Anglo-Egyptian forces, when they started to come back. They did not return as one unified tribe, but rather split into several sections each finding its way into the Sudan according to the availability of grazing and water resources. Today, the Rashaida are divided into three main sections each under an independent Omda and the authorities have failed to unify them in one Sheikhship or Nazirate like other tribes in the region. This independence of the Rashaida has inspired the prejudices of the Hadendowa leadership which succeeded in extending its administrative control over all other groups within its territorial boundaries. But the Rashaida have refused persistently to be amalgamated into the Hadendowa Nazirate. For this reason the Rashaida claim that their conflict is not with the Hadendowa as a tribe, but it is a conflict with the leadership of the Hadendowa. The leadership complains that the Rashaida have a different pattern of mobility from the other population in eastern Sudan. This is because they move continuously, covering a vast region from Eritrea to the Egyptian border; and they do not return regularly to certain residential places. Therefore it is difficult for the Hadendowa Sheikhs to administer law and order as they cannot reach the law-breakers from among the Rashaida, or have access to any recognizable Rashaida Sheikh. So the Hadendowa Sheikhs always allege that the Rashaida are the main obstacle to administrative efficiency and that they have to be forced to accept being amalgamated into the

Nazirate. In spite of the official support for this proposal,\(^1\) the Rashaida object to it strongly, and they have succeeded in preserving their independence from the Hadendowa Nazirate. So they believe that because the Hadendowa leadership has failed to satisfy its political ambitions by amalgamation, it is encouraging its tribesmen to raid the Rashaida, to steal and kill their animals.\(^2\)

The Rashaida have no traditional rights of their own in eastern Sudan as they have migrated recently to the area. Successive governments in the Sudan have realized the fact that the Rashaida should have access to adequate pastures, watering points and agricultural land. But the traditional claims by the Hadendowa in the region always put restrictions on this access, and even exclude the Rashaida from the only area of potentially rich grazing, the Gash Delta. Here rises the contradiction between tribal claims and official policy which is trying to introduce measures to protect the interests of the whole pastoral population, both Hadendowa and non-Hadendowa. This in fact is a contradiction between the tribal structure of the Hadendowa and the larger territorial framework as the two principles for the Native Administration in the region. However, until now administrative attempts to reconcile the discrepancy between these two principles have been confronted by the uncompromising position of the Hadendowa in regard to their territorial rights.

The Hadendowa and the Urban population in the Gash Delta

As I mentioned above, the development of the Gash Delta Scheme in 1924 encouraged large numbers of riverains and West Africans to settle in the area. The allocation of land to these immigrants was restricted, but they

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succeeded in acquiring more tenancies than their official allotments. Because the Hadendowa tenants are faced with shortage of labour, they either hire West Africans or lease the land to them on terms of crop-sharing. The crop-sharing system enables West Africans to increase their plots since any one of them can arrange for a separate contract with three or four Hadendowa tenants. Further, they add more land to their prescribed allotments by cultivating those areas which the Hadendowa refuse as a result of heavy growth of weeds.

As for the riverains, they control and cultivate larger areas in the scheme than West Africans do. A considerable number of the Hadendowa tenants need financial support to pay for hired labour. Although each tenant receives agricultural loans from the administration of the scheme, these loans are not sufficient to cover the high costs of production. So the tenants turn to borrow money from the riverains who constitute the majority of merchants and shop-keepers in the region. In addition, the shop-keepers also provide the local population with the essential commodities of grain, sugar, coffee, cooking oil and clothes. The tenants continue borrowing during the whole agricultural season and pledge their crop or tenancies as security for the accumulated debts. But in view of the prevailing low incomes from agriculture, most of the tenants cannot settle these debts. Consequently, a significant proportion of the Hadendowa tenants have entered into secret agreements with the shop-keepers to whom they concede their rights of cultivation in the scheme in settlement of the debts. Eventually, the riverains have either reaped profits by lending money to the Hadendowa at usurious rates of interest, or enlarged their tenancies by obtaining the plots of their debtors. Today, the riverains manage to run large allotments of castor successfully, because first, they can afford the high expenses of establishing and maintaining the crop and
second, they have no animals to distract them from attending to their cultivation regularly. In consequence, the riverains have achieved economic dominance in the Gash Delta.

So the benefits of the scheme are passing now to non-Hadendowa tenants who are interested primarily in the production of castor while neglecting the cultivation of food crops. In the past, the Delta lands flooded by the Gash river provided the chief area for grazing and the main supply of durra to the Hadendowa population. They came to regard it as an unfailing reserve of pasturage and food which could support them when the rains failed in other parts of their territory. But today, the Gash flood is directed mainly to irrigate castor fields regardless of the conditions of the rains in the region as a whole. In the end, the Hadendowa are left without adequate grazing and water supplies for their animals, or sufficient land for food crops. Therefore, the interests of the Hadendowa and the immigrants, in the resources of the Gash Delta, are at variance. Ultimately, this has led to friction between the two groups, and such friction is usually aggravated by animal-trespass on the fields. The poorer the rains over the whole region, the more numerous are the cases of trespass and crop damage. Frequently the animals are seized and impounded when they come to graze close to the fields. The Hadendowa cannot repossess their impounded animals unless they pay the fines imposed upon them at the official rates by the administration of the scheme. However, there are no acute conflicts between Hadendowa tenants and the herders as they usually settle such cases by traditional reconciliation without the interference of the administration.

The increasing influence of the immigrants in the scheme has led to discontent among the Hadendowa, who have seen the threat of the scheme to their pastoral mode of life. At present, the elder members of the tribe claim that the limitation of the pastures has reduced the tribe's animal
wealth. They maintain that a considerable proportion of their herds die because of lack of adequate grazing causing general impoverishment throughout the tribe. However, there are no records available to support this claim and the official estimates indicate that the total animal wealth of the Hadendowa is increasing, not decreasing (See table 3, chapter 3). Nevertheless, it is true that animal husbandry in the Gash Delta has become more difficult and it is not encouraged by the regulations of the scheme. Moreover, the livestock owned by the few families who have chosen sedentary agriculture are less than that of the average individual ownership of animals among their pastoral kinsmen. The table below shows the total number of animals and average individual ownership among two hundred sedentary families in the scheme. Also, the table contains figures showing the average size of family herds in two diwabs of fifty-three pastoral families to the east of the Gash Delta.

Table 6. Average individual ownership of animals inside and outside the Delta.

<table>
<thead>
<tr>
<th>Animals</th>
<th>Cattle</th>
<th>Sheep</th>
<th>Camels</th>
<th>Goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of animals</td>
<td>440</td>
<td>943</td>
<td>278</td>
<td>687</td>
</tr>
<tr>
<td>owned by 200 families</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual average in the Gash Delta (200 families)</td>
<td>2.2</td>
<td>4.7</td>
<td>1.39</td>
<td>3.43</td>
</tr>
<tr>
<td>Individual average outside the Delta (53 families)</td>
<td>9</td>
<td>15</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

All the sedentary families included in the table above claim that their animal wealth has decreased by more than two thirds during the last twenty years due to the diminishing grazing areas and watering places as a result of agricultural activities. Nonetheless, it is not sufficient to explain
the difference between these averages in terms of grazing restrictions only. This is because these sedentary families are drawn from among poor pastoralists who originally owned few or no animals. Accordingly, they have shifted to sedentary agriculture, either temporarily or permanently. Further, the numbers of animals vary widely from one diwab to another in the same region as well as between different regions of Hadendowa territory. Hence it is difficult to find out the effect of the scheme on the whole tribe's animal wealth without systematic samples from wider sectors of the tribe.

In view of all disadvantages of the scheme for the pastoral economy, the Hadendowa have come to realize that they have sacrificed their asl rights in the Gash Delta, at first for cotton cultivation and then for castor. They find themselves in unequal competition for their own natural resources with the migrant tenants. These migrants ensure their position because of their superiority in qualities which no longer depend on tribal values. The success in modern conditions depends on adoption to agricultural techniques and co-operation with the agricultural authorities. But the Hadendowa still cling to the pastoral life and develop little interest in commercial cultivation. So they find it difficult to withstand the competition with the adaptable riverains and West Africans. Therefore the only way for the Hadendowa to overcome this inferiority is by considering themselves as the landlords of the Delta. They still claim that they have inviolate rights of asl ownership in the Gash Delta and that such rights will remain intact. However they understand that it would be unrealistic, under the changing political and economic circumstances in the Sudan, to drive all these tenants out of the scheme. Thus the purpose of their claims is a political manoeuvre to remind the authorities that the Hadendowa still stick to their ancestral rights in the Delta. It is necessary for them to affirm their rights continuously, otherwise they are going to lose them to the successful
migrant cultivators. The tendency in other similar agricultural schemes is to give land to those who are ready to settle permanently and show interest in cultivation. But since 1924, all successive administrations of the scheme have failed to change this fundamental aspect of territorial rights among the Hadendowa. Thus the policy has continued to give them greater bias towards agriculture, hoping for their eventual settlement in the Gash Delta.

Although the official policy is to recognise the Hadendowa tribal interests in the scheme, it is often difficult to reconcile their claims of undisputed territorial rights with the objectives of national economic interests. The conflict in interests between the Hadendowa and the immigrants is frequently deepened by political and religious differences. In such situations the Hadendowa usually complain officially to the provincial authorities about the growing numbers of migrant tenants in the scheme. They demand that no further permission should be given to riverains for trading or agricultural activities within the Gash Delta. Further, they demand that Hadendowa merchants be given preference in building contracts, trading licences and other governmental business in the region.\(^{1}\) Moreover, they object to the failure of these migrants to observe Hadendowa customary law regarding the settlement of disputes, and their neglect to pay the gwadab in return for the usufructuary rights which they enjoy. In addition, the immigrants have different values and concepts which threaten the traditional family life and morals of the Hadendowa. So it has become more difficult for the Hadendowa tenants to bring their families near the Gash Delta where riverains and West Africans have settled.

The leadership of the Hadendowa is always exploiting the conflicts between the local population and the immigrants to serve and secure its own interests. The ethnic conflicts in the Gash Delta are often inspired or

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augmented by the competition between the tribal leaders and the riverains for the political and economic domination over the Hadendowa. The majority of the riverains are supporters of the Khatmiya religious sect, whereas the leadership of the Hadendowa remains strongly attached and faithful to the descendants of the Mahdi. So the riverains have been the main element of the opposition to the tribal leaders, particularly since the rise of the national political movement in 1946. They manipulated and mobilized discontent among sections of the Hadendowa against the Native Administration, which they said was using its official powers to oppress its political opponents. Also, the riverains opposed the role of Hadendowa leadership in the allocation of land in the Gash Delta. Eventually, the tribal leaders felt an immediate threat to their traditional political influence in the region. Moreover, the economic dependence of the Hadendowa tribesmen on the riverains has been increasing gradually. Previously, the Hadendowa leaders were accustomed to control and cultivate extensive areas in the scheme on behalf of their tribesmen, thus accumulating large profits. But recently, the largest part of the tenancies has come under the control of shop-keepers and entrepreneurs from among the riverains. Although the riverains claim no traditional rights in the Gash Delta, they have succeeded in competition with the tribal leaders because of their economic influence.

The riverains have accordingly been displacing the traditional leadership both politically and economically. The position of the leaders depends on the continuity of the tribal system, as they cannot cope with the process of economic change in the scheme, so they have been using their administrative influence continuously to support the claims of Hadendowa

territorial rights in the Gash Delta. Thus although such claims have always appeared to be manifestations of ethnic conflicts, they are motivated largely by political and economic prejudices between the Hadendowa leaders and the riverains. On the other hand, West Africans have neither political aspirations nor a major economic power to constitute a direct threat on the position of the tribal leaders. They are interested mainly in agriculture whether they own the land or not, and hence the leaders complain little about them.
CHAPTER 5

HOUSEHOLD ORGANIZATION

The purpose of this chapter is to investigate the organization of domestic economy of the Hadendowa. The concept of domestic economy necessarily involves the activities of production, distribution and consumption. The main sphere of production in this situation is herding; and since animals occupy a central place in consumption and social reproduction, I shall limit the discussion to those aspects of production which are related directly to animal husbandry. Obviously productive activities in such an economic sector require rights in animals, natural resources and human labour. I mentioned before that the grazing land is the collective property of the whole diwab as all its members share access to pastures and natural water sources. However, wells are excluded from this communal entitlement because they are privately owned. Therefore my primary concern here is to explain the organization of production in terms of capital assets, which are animals, and labour requirements. When we focus on these two factors we find that rights in animals and access to labour resources are established through the principles of kinship. Moreover, the elementary family is the smallest kinship unit of economic integration within which individual rights and duties with regard to animals are allocated. So the elementary family constitutes a basic unit of production to fulfill the requirements of daily consumption, marriage transactions and other kinship obligations. The achievement of these objectives needs an adequate number of animals as well as the co-operative work of several males to carry out herding duties and of females for domestic tasks. The elementary family will be a viable household when it satisfies such demands from its own animal and labour resources, that is to say without receiving substantial help from outside. Before I discuss the essential requirements for the family to maintain itself as a
self-sufficient household, it is necessary to describe the principles underlying household composition.

**The tent**

The typical residence of the Hadendowa elementary family, irrespective of its size and composition, i.e., in terms of age and sex, is a single tent, *bidagou*. This tent is a hemispherical structure of straw mats, *umbad*, made of dom fibre. It is composed of two layers of these mats fastened together by ropes or wooden nails. The mats are stretched over curved stems which are supported by, and tied to, poles along the sides. The internal layer of the mats is lined with rugs, *dheer*, made of goat hair, as a kind of decoration especially when the tent is put up for the first time at marriage.

Every married woman (dirāt) must have her own tent, which is usually erected on the first day of her marriage. Before the consummation of marriage, a young man has to pay his potential mother-in-law a sum of money varying from fifteen to twenty-five Sudanese pounds, or twelve sheep instead of money. This payment is known as the price of the woollen rug (*haktīb*), and its transfer marks an important stage in the marriage transactions. The mother-in-law uses this payment, whether in cash or in animals, to prepare straw mats, rugs, ropes and the bedding for her daughter's tent. In addition she also provides other articles of the tent equipment. The preparation of these various items can take from four months to one year, depending on the date arranged for the final marriage ceremony. Usually during this period other women of the *diwāb* co-operate with the bride’s mother in braiding, spinning and weaving. Apart from the fact that this co-operation is a reciprocal help, it is also an occasion of entertainment for women who enjoy themselves with food and coffee provided by the hostess. On the other hand it is an opportunity for the latter to display the generosity of her prospective son-in-law who is
expected to provide two or three lambs and small presents of sugar, coffee and grain for such occasions.

When all the necessary items for building a tent are prepared, then the women of the diwāb come together to erect it on the marriage day (apou). The process of setting up the bridal tent is known as segovayēd which means the renewal of the household. At first the new tent is situated near that of the bride's mother, with the entrance always facing Mecca, for blessing, and it remains in this position for seven days. After that period it can be changed towards any other direction according to practical considerations, for example to avoid the strong winds or the heat of the sun. But it is always preferable to set up a tent with its entrance facing a tree, or in a corner of a valley away from footpaths. This is to prevent trespass which is a serious offence and an insulting misdeed. Actually, the owner of a tent would be blamed if she complained against trespassers, because she ought to build her tent in a protected place. Hence, the Hadendowa are accustomed to say "tōre shōmētait i yam dihi bādeīt omyāda darbi mōy ikaitēt boytān haib." This text means if you are inside a well, you can't prevent other persons from dropping water on you while they are drawing. Similarly you will be mistaken if you build your tent near a footpath and try to stop people from passing in front of it.

Generally the tent is built spaciously and high during summer and winter while it is always compact and low during autumn (kharif). This is because during winter and summer the tents remain for longer periods in one place within a reasonable distance from well-centres. But during autumn they are moved frequently, particularly in the northern part of Hadendowa country, to make use of rains, grazing and water pools. Therefore the size of the tent depends on the frequency of its movement, and apart from that during autumn there are dust storms (habābai) which may blow any high tent down. The setting up of a new tent or striking and
repitching it is a female job. Usually the women of a diwâb co-operate in pitching and moving tents from one place to another. They braid mats and prepare stems and poles from trees growing in the vicinity of the diwâb; while men have to twist straw ropes for tying up the tent. However, not all Hadendowa women have access to dom trees, so in these cases fibre and straw, or finished mats and ropes are fetched by men from the local markets. Also, it is the duty of men to construct shelters from straw or mats for guests on occasions like funerals, marriage and boys' circumcision.

Because women are responsible for pulling down and rebuilding tents, the movement of any tent cannot be undertaken without the wife's consent. One of the causes of the movement of the family is to look for better pastures and sufficient water for its animals in another region. Hadendowa also move away from places where they expect attack from enemies; or a family may move as a result of conflicts with other members of the diwâb. The Hadendowa emphasize the necessity of consulting women on these occasions by the proverb "mhayenan tena terou titakati ba'ahain: merukuiwa, tiawowa, taraqu." This means "do not consult women except in the following situations: fear, thirst and hunger." Naturally any of these occasions necessitates movement of the tents and it is never possible for men to decide that unless getting women's consent. The control of the movement of tents by women is an important factor in the composition of the tent-cluster, which is based on uxorilocality as we shall see later on.

The Hadendowa, like other nomads, avoid the accumulation of heavy and bulky house equipment to facilitate movement behind their animals when it is necessary. So their material possessions are simple and the main contents of the tent are few. The largest space inside the tent is occupied by the bed, miskâb. It is made of dom strips or wooden stems, contrived with leather thongs or threads of goat hair. This is placed on a rectangular wooden framework supported by six poles, one at each corner.
and two in the middle of the sides. Then it is covered either with straw mats or woollen rugs. The husband, his wife and their children of both sexes, until the age of seven or eight, all sleep together on this bed. The husband keeps his personal effects under this bed, but always on the right side of the tent, imiguad. These are few and they consist of a sword (mmbabad), sticks (to'okalay), coffee utensils and one or two items of clothing in a skin bag. The left side of the tent (itrhagwad) is used by the wife to keep her possessions which are usually clothes, jewellery and scents locked in a wooden box or, as is becoming more common nowadays, a metal box. Small amounts of grain, sugar and coffee together with cooking-pots, wooden bowls (kövät) and dishes are also kept on the left side of the tent. Skin bags, tibidra, for water, and tahamwät for milk and clarified butter, are suspended from the roof on both sides of the entrance. The cooking place, which always remains in front of the tent, is a hole in the ground surrounded by stones to protect the fire from the wind.

Household composition

We have seen how the tent starts with a nuclear family, husband and wife, since it is pitched for the bride on the first day of her married life. Eventually, this develops into a complete elementary family with the birth of children. Normally the children move out on their marriage to establish their own tents; and subsequently the parents end up by living alone. Therefore the social composition of the tent varies through time, depending on the procreation or non-procreation of the spouses; on the number and sex of children; and on the marriages of these children. Membership in the tent is restricted to marital and parental links and does not extend beyond the limits of the elementary family.

The ideal natural developmental cycle may be modified by circumstances of divorce and death in the household. Although these social and natural
factors may reduce the membership of a tent to one sex only, no tent will continue to exist without a female member. Typically every tent represents only one married woman, or a woman who has been married, whether she is widowed, divorced, or, in certain circumstances, even dead. In the case of polygamy, co-wives are never joined together in one tent, but each one must have her own with the husband visiting them in turn. The apparent explanation for such an arrangement is to avoid open hostility between co-wives. But more importantly, polygamy is practised mainly for political reasons as a man who is in, or who is a candidate for, a position of power marries in different diwābs to gain political support through affinal ties. Such marriages are arranged with the purpose of leaving each wife and her children with the affines to maintain political links with various groups. It is necessary to mention here that the rate of polygamy is low among the Hadendowa. This is because in relation to the economic resources of the Hadendowa, marriage expenses are high. It is difficult for an ordinary man to have more than one wife. The Hadendowa practice is that if the husband wants to take another wife then the first wife must be provided with animals and gifts equal to those spent on the second marriage. Besides that it is difficult for a husband to support each wife and her children in a separate household. Thus it is only political leaders and rich men who can marry more than one wife; for they are the ones who can afford the marriage payments and household expenses. In one diwāb the number of polygamous marriages is six out of fifty-four marriages, or about eleven per cent. Five of these polygamous cases are by one man who is sheikh khat. His authority is on a regional basis as his judicial and administrative powers extend over an area inhabited by a heterogeneous population of different Hadendowa lineages. This sheikh married five wives, one of whom he has divorced. At first he took a wife from his diwāb, in conformity with the ideal pattern, then he married four other wives, each from one of the main lineages in the region, to maintain
close relations with these lineages and to gain their support and confidence.

The main features of household composition in the Amrai diwāb during the time of fieldwork, are represented by the following table.

Table 7. Household Composition in the Amrai Diwāb

<table>
<thead>
<tr>
<th>Type of household composition</th>
<th>Occurrences in the diwāb</th>
<th>Approximate percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newly married couple</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Complete elementary family</td>
<td>44</td>
<td>62</td>
</tr>
<tr>
<td>Old couple</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Divorced woman without children</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Divorced women with children</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Widow without children</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Widow with children</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Widower with children</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unmarried children of dead parents</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100</td>
</tr>
</tbody>
</table>

Although the information used here is gathered from one camp, I compared it with general observations of several diwābs in different regions of Hadendowa country. I found that the rules which regulate household structure are the same throughout the tribe.

It is apparent from the above table that the majority of the households are based on married couples. This pattern is represented by fifty-five cases or about seventy-seven per cent. The number includes seven tents of newly married couples who have not yet got children. Also, in the same number, there are four tents of old couples; one of them has been a childless marriage, and the other three have grown-up children who live in their own tents. The general pattern of the household composition in the diwāb is that of a complete elementary family since this is indicated by the remaining forty-four tents, which is almost sixty-two per cent.
The tent always remains the property of the wife, even if she is divorced or becomes a widow. In both situations she will continue to live in her tent either with unmarried children or alone when all the children are married. There are four divorced women in the diwāb, one of them still has unmarried children staying with her, whereas the other three live by themselves. The number of widows is eight, two with children and the remainder living alone. A divorced man usually rejoins the tent of his mother or, if she is dead, a sister, either permanently or until he remarry. But he never goes to live with a married daughter or son, if he has got any, because this will offend the divorced mother. There is one example of a divorced man joining his sister's tent, though he has married daughters and sons in the diwāb. If a man survives the death of his wife and still has unmarried daughters they remain together in the tent (two cases in the table). Perhaps a deceased woman has left no daughters, or it may happen that all her daughters have already married. Then in both cases, as well as on the marriage of the last daughter in the tent, the tent is pulled down finally. Its contents are inherited by her closest female relatives, giving priority to daughters, or to mother or sisters in the absence of a daughter. So the physical existence of the household will come to an end with the final dismantling of the tent. Males have no right in inheritance of tents and tent equipment, a right which is assigned to females only. If there are unmarried sons in the household, these usually join the tents of a married brother or a sister. There is one young unmarried man who attaches himself to his brother's tent. A widower who has no unmarried daughters to live with, always moves to the tent of his mother, or a sister or a married daughter. If none of these kinswomen is available, the alternative is to join a married son or a brother. There are two cases of widowers who have no unmarried daughters; one of them has returned to his mother's tent while the other joins his brother. Finally there are two tents in the diwāb occupied by
children of dead parents. One of these tents belongs to three daughters living with their unmarried brother; and in the other tent there are only two daughters.

Although the tent is owned by and associated with females, each tent must have a male head. The headship is a responsibility which entails control and management of the tent's economic assets and labour resources to maintain the livelihood of its members and to carry out other social functions. The tent-head is responsible for the marriage arrangements of the young members in the tent. Also it is his duty to observe the moral conduct of the female members and protect them against seduction. In most cases the tent heads are husbands who live in and look after their wives' tents. This is reflected in the table below where fifty-five of the heads, seventy-seven per cent, come into this category.

Table 8. The relationship of the male tent-head to the female owner of the tent

<table>
<thead>
<tr>
<th>Male tent-heads</th>
<th>Marital status of the female owner of the tent</th>
<th>Unmarried daughters of a dead mother</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Married</td>
<td>Widow</td>
<td>Divorced</td>
</tr>
<tr>
<td>Husband</td>
<td>55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Father</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unmarried son</td>
<td>-</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Married son</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Unmarried brother</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Married brother</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Son-in-law</td>
<td>-</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

The ideal pattern for the wife to have her own husband to be responsible for her tent is changed also by eventualities of divorce and widowhood. In such situations usually an unmarried adult son succeeds his father as tent-head. In the absence of an unmarried grown-up son, the responsibility is taken over by a married son or the wife's father; and if either of them is
not available she will depend on one of her brothers or a son-in-law. Among the eight widows' tents in the diwab (see Table 8) four sons, two unmarried and two married, have replaced their dead fathers as tent-heads. There is one case of a widow who has come under the responsibility of her father because her sons are still young. The remaining three widows have no sons, so one of them is looked after by her married brother; and the other two by their sons-in-law. Also, three of the divorced women in the table have no sons and therefore they depend on a father, or on a brother or on a son-in-law as shown by the table.

The death of the wife does not change the status of her husband as a tent-head as long as he has unmarried daughters to live in their mother's tent. There are four tents owned by unmarried daughters, and in two of them the fathers continue their duties of the tent-head. If the father is also dead, then the young unmarried daughters will depend on one of their brothers, whether unmarried (one case) or married (one case) to take care of them. So it is not always necessary for the person who succeeds to a tent-head to be a member of that tent, as he may be also married living with his wife. Therefore in such circumstances, as well as in the case of polygamy, a man can be a head of more than one tent.

Work organization in the household

The co-ordination of tasks and allocation of duties in the household depend on the division of labour according to sex and age. The division of labour between men and women, the former leading their life on the pastures, the latter in the tents, is symbolised by a Hadendowa custom at childbirth. The afterbirth (wahalës) of the boy is taken immediately by women and buried under a shady tree at a far distance from the tents. The afterbirth of the girl, on the other hand, is buried inside the tent. They believe that the child will be associated with the place where its afterbirth has been buried. Therefore the boys are always on pastures looking
after herds; while the girls remain inside the tents performing domestic tasks.

The tent is the sphere of female activities, and no male over the age of seven, except a husband, sleeps in a tent or carries out any activities inside it. The most important domestic functions are the preparation of food and the care of children. Women spend a considerable part of the day grinding grain by hand on a millstone; however occasionally young boys take the grain to a mechanical mill in a neighbouring village. The durra flour is needed daily to make the thick porridge (ōatem), for the two main meals, which are mha'asēwa taken early in the morning, and ōdrar taken in the evening. Another female responsibility concerning food is the making of clarified butter (ū'ala'), which is usually consumed as part of the morning meal. Young daughters assist their mother in the running of the household by collecting brushwood for the cooking-fire and by bringing water from the wells on donkeys or by attending to small children. If a household does not have access to younger daughters, then the water and brushwood are fetched by boys, as a girl approaching or at puberty is never allowed to mix with males. Generally young children of both sexes look after goats and small calves which graze close to the tent. But in most cases this job is left to boys only so that they can be trained in herding techniques and be prepared as potential herders.

Apart from that, women spend the rest of their time in braiding straw mats, weaving woollen rugs or making leather containers and decorative articles for the tent. The women are not allowed by custom to milk animals or wash men's clothes. Milking is an exclusive male job, and women will never do it, as it is considered extremely shameful. Also women do not cook meat for large male gatherings such as those at marriage ceremonies, funerals or boys' circumcision. It is the duty of men to cook meat on such occasions, and this is usually done away from the tent.

While women are confined to domestic work in their tents, the men are
responsible for the management and the maintenance of animals. It is shameful (aib) for a man to be inside or near the tent during the day-time, unless he is ill or very old. Herding is an arduous task which needs able adult men to follow the animals on pastures and to water them from wells, particularly during summer when water sources get very scarce.

Moreover, the pastoral life of the Hadendowa is characterised by continuous conflicts and friction over pastures and well-centres, a matter which leads frequently to homicides or injuries and animal-thefts. Table 9 indicates that the friction is intense during May and June which are the peak months of the dry season. During these two months, grazing and water sources get extremely scarce and so a large number of herds concentrate around the Gash Delta. Shortage of grass increases conflicts over pastures and leads to the rise in the number of injuries and animal-thefts.

Table 9. Cases of animal thefts, injuries and homicides among the Hadendowa in the Gash Delta during 1969/70.

Note: This table includes those crimes which were reported to Aroma Police Headquarters only.

<table>
<thead>
<tr>
<th>Month</th>
<th>Animal thefts</th>
<th>Minor injuries</th>
<th>Serious injuries</th>
<th>Attempted murder</th>
<th>Murder</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1969</td>
<td>145</td>
<td>114</td>
<td>34</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>July 1969</td>
<td>27</td>
<td>32</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>August 1969</td>
<td>36</td>
<td>42</td>
<td>6</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Sept. 1969</td>
<td>69</td>
<td>43</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>October 1969</td>
<td>104</td>
<td>47</td>
<td>17</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>November 1969</td>
<td>68</td>
<td>54</td>
<td>8</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>December 1969</td>
<td>67</td>
<td>63</td>
<td>12</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>January 1970</td>
<td>58</td>
<td>63</td>
<td>19</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>February 1970</td>
<td>50</td>
<td>53</td>
<td>26</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>March 1970</td>
<td>91</td>
<td>45</td>
<td>30</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>April 1970</td>
<td>58</td>
<td>65</td>
<td>31</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>May 1970</td>
<td>116</td>
<td>115</td>
<td>30</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

From Aroma Police Reports: Aroma.
Normally it takes two men to follow a herd of twenty or twenty-five cattle on grazing and another two men for watering. Similarly a flock of thirty sheep needs at least two men for shepherding and one more man for watering. Such high labour demands are also necessary because the Hadendowa herd their animals during nights and this requires more men to keep constant watch on animals; otherwise they will easily go astray and eventually be driven off by thieves or attacked by enemies.

The herding duties require the division and co-ordination of tasks among the male members of the household. Attending animals on pastures and watering them are always the responsibilities of unmarried adult men (*nakhir*). These divide themselves into two working-groups; one to go out with the herd overnight, and the other to water it next morning. Also, it is the duty of the latter to repair wells and build large troughs (*ṣdrīk*) from which the animals drink. The animals come to the wells at about mid-morning. They remain to graze and rest near the wells while the herders sleep under shady trees or temporary shelters. At sunset the herd is driven to the *diwāb* for the cows to be milked near the tent where the young calves are kept in a corral. After that the members of the household will have their evening meal, *ṣdrar*, each sex separately, the males eating outside the tent and the females inside. As soon as they finish their meal, the group responsible for herding that night takes the animals to the pastures while the other go to the guest tree (*ṣhafat*) on the edge of the *diwāb*. All young unmarried men of the *diwāb* spend part of the night there chatting and playing music on *bāsinkōb*. Then they sleep on the ground around the camp to guard against trespassers or a sudden attack.

The young men get up early in the morning and divide themselves into small groups, the members of each group prepare and drink coffee together. The Hadendowa have a belief that when a coffee-drinking group exceeds four

1. *bāsinkōb* is a lute-like musical instrument which is known in other parts of the Sudan as *c-tambūr*. 
persons, then this will bring bad luck to the members of that group. Therefore a coffee-pot should not, under any circumstances, be consumed by more than four persons at one time. The proverb *Ida' big wehōk* which means "a coffee-pot must not be drunk by five persons" is indicative of this well-established belief. After coffee, the young men come to the tent for the morning meal and from there they go directly to the wells to start a new working day.

On the other hand, the older men in the camp leave their wives' tents for the guest tree where they sit for most of the day. They spend the time drinking coffee while discussing herding activities and settlement of disputes or receiving guests with whom they usually discuss tribal affairs. Besides that they may visit the wells to supervise the work of young men and inspect the conditions of the herds. Also they go frequently to the local markets, either to sell an animal or to bring the household needs such as coffee, grain, sugar, and occasionally clothes, fibre mats and ropes.

However there are some seasonal variations in this arrangements of herding outlined here. Usually, during the rainy season from July to September, young men remain with the herds away from the tents on distant pastures. At this time of the year, animals can drink from rain-pools, and thus the herders are released from the laborious task of drawing water every morning. Moreover, even for those who continue to use wells, working demands for watering animals are not heavy during the rainy season and winter. That is because cattle and sheep are watered either every other day (*nagārī*), or every three days (*sarmahābī*). This is in contrast to summer when these animals need to be watered daily (*vōyti*), and sometimes twice a day. So watering of herds during the summer requires more work, especially towards the end of the season when the water-level in the wells becomes noticeably low. Equally important, during rains, herds spread over wider areas and this reduces competition and disputes over pastures.
But in the summer the competition is high and therefore each herd needs intensive care.

When there is less demand on labour for herding activities during the rainy season, some of the adult sons may join their fathers to cultivate durra. This is mainly rain cultivation and it is done mainly on small plots during years of good average rainfall. However, farming does not take a long time or involve much work. It needs one man to make rows of holes on the ground, using the sowing-stick, saluka; and another man to drop seeds in these holes and cover them with soil shifted by his feet. The crop will grow with the early showers in July, and a man may visit his cultivation-plot occasionally to be sure that it has not been damaged by animals, locusts or birds. Apart from that it requires no specific attention until the harvest time in September.

Rights in animals and building of the herd

The household depends on its herd for livelihood and to maintain the reciprocity of kinship relations with other members of the diwāb. The household head is responsible for the management of the herd, first, to provide his dependents with food and second, to arrange marriage for the young men as well as to fulfill various kinship responsibilities. The father, as household head, needs a sufficient number of animals at his disposal to secure the source of food and cash for his wife and children. Besides that he can share out the resources of his herd to carry out his obligations as a member of a wider kinship group, whether by distributing the surplus of the milk or disposing of animals to help his kinsmen. Also he gets cash by selling calves and lambs either to obtain commodities or to help relatives when they are in need of money. Moreover, he has to allot his animals to perform these duties in addition to meeting the demands of bridewealth (gūsar) and other transactions, for example, gwadāb and tonfi, on the marriage of his sons. It is necessary to explain here
the different uses of the word gwadāb. In Tu-bedawie language, gwadāb means chest of the animal or the front part of the body. The Hadendowa use it for all formal and informal payments made to the tribal leaders. Also it refers to customary dues received by asl owners from amēra users. Finally, it is used for certain marriage transactions from the bridegroom to the bride's paternal uncles and aunts.

So the maintenance of the elementary family as an autonomous household requires possession of animals, whether this be through outright ownership or through usufructuary rights. Both ownership and usufruct are in turn related to reciprocal rights and services among members of the family. These co-operate to raise up their herd to a maximum available number to fulfil the obligation of this reciprocity. The adequate management of the herd entails co-operation between the father and his sons. This cooperation is based on and maintained by the interdependent interests of the father and the sons in the family's herd. The father cannot carry out all herding duties and other responsibilities of the household head by himself. So he needs the co-operative labour of his sons for grazing and watering of the animals. At the same time, the sons have their own interests in the herd, not only as anticipatory owners after their father's death, but also to achieve certain aims during his lifetime. The aspirations of any Hadendowa young man are to marry, beget children and set up his own household. The fulfilment of these objectives depends on the accumulation of animals; and the sons have few possibilities to build their own herds without receiving help from their father. Thus the sons are always in a subordinate position to their father and accordingly they accept his organizational leadership in the household. They co-operate among themselves to graze and water the herd while he supervises their work. He always wants to see that his animals are in a satisfactory condition, for example, by ensuring that they graze on adequate pastures and are well watered. The sons frequently return to the father in order to discuss
problems concerning pastures and water resources. Furthermore, the father represents them in attempts to settle their conflicts and disputes with herders of other households, whether from inside or outside the divāb.

The building of a herd is a long process and many families may not achieve sufficiency in animals except at a later stage in their developmental cycle. Here, I will follow the process of the formation of the herd and show how it depends on securing animals from different sources. The father usually allocates a number of animals to each son and daughter on various occasions in their lives, e.g., birth, circumcision and marriage. First, the child receives a calf or a sheep at his or her naming ceremony (Itamblit), which is on the seventh day after birth. Such allocations are made also on the first shaving of the head Ithor, when the child is seven months old. Boys are circumcised at the age of seven or eight years and circumcision marks a significant stage in a boy's life-history. He receives a number of animal gifts from his father and relatives and from now he starts his training to be a herder. Then the boy receives the biggest animal gifts on his marriage. He will use the animals which he has accumulated since his birth, either all or part of them, in marriage transactions and to start the nucleus of his future herd. Although the father allocates some of his animals to his children, this does not mean that the herd has been divided into individual shares. The assignment of animals to sons and daughters does not give them the right of control, which remains in the father's hands. Therefore they do not have the right to sell these animals or dispose of them by any other means, unless they obtain their father's consent.

However, the father does not necessarily allocate animals equally among his sons and daughters. I have no detailed information about the individual allocations in one elementary family, but generally it is apparent that the eldest son receives more animals than his younger brothers. This is because the eldest son, normally, gets married first
and as this marriage is the most significant one to the father he expends a large number of animals on it. Then the father is not obliged to allocate to the next son, or to spend on his marriage the same number of animals. Nevertheless this depends on the size of the father's herd as a rich father can afford to expend the same number of animals on each son's marriage.

Moreover, the father always tries to preserve his own interests by allocating a substantial part of the herd to his daughters. By doing this, he is aiming to keep more animals under his control in the future. The sons disperse their father's herd by taking bridewealth and other marriage transactions out of it. A son needs cash to betroth a girl formally. The betrothal, harau, is accomplished by offering some gifts, such as clothes, sugar, coffee and scents, to the girl's family. At the same time the girl enhances her reputation by receiving more gifts from her future bridegroom to be distributed among her mates in the diwāb.

Further, during preparation for his marriage, the man has to pay his mother-in-law, haktīb, the price of the woollen rug. So the son depends on his father's herd for making these gifts. Besides that the bridegroom needs more animals to pay gwadāb to the bride's paternal uncles and aunts, and tonfi to her maternal uncles and aunts. This is in addition to the animals which are slaughtered on the final marriage ceremony (agau).

The bridewealth which is usually two cows or one cow and five sheep, is transferred to the father-in-law's herd and consequently it comes under his control. Thus when the father provides his sons with bridewealth he loses control over a substantial part of his herd and eventually his household will be faced with shortage of food. On the other hand, the daughters do not spend the animals allocated to them on marriage and more important, they will continue living with the father, leaving these animals as part of his herd. In addition, the father increases the number of animals under his control by the marriage of the daughters. This
is because the bridewealth and other presents will be added to the father's herd and he will control them until his sons-in-law set up their own herds at a later stage. So every father tries to avoid the problem of food shortage in the household by delaying the marriage of his sons until he gets his daughters married first. The daughter's bridewealth makes up for the animals which will be lost by the sons' marriages. In this way the family subsistence is maintained through the marriages of its daughters.

Usually a young man establishes his own tent on marriage, near that of his father-in-law. But a newly married man does not have an adequate number of animals to set up a production unit immediately after his wedding. He may expend on his marriage all the animals which he has acquired from his father. For instance, the individual average holding of animals by unmarried young men in one diwīb is two cows and five lambs. Then after paying the two cows for bridewealth, probably a young man will not get more than one cow from his father. The bridewealth animals are usually transferred to the father-in-law's herd and eventually come under his control. Therefore, as far as possession of animals is concerned, the majority of young men cannot fulfil the requirements of an independent household.

Thus, although the young man moves on marriage to live in his own tent near his wife's father, he does not give up interests in his father's herd. He continues to co-operate with his other brothers, hoping for more presents to enable him to build his own herd in the future. Meanwhile, the father-in-law always demands and expects gifts from his son-in-law by encouraging him to bring more animals from his father's herd. This pressure from the father-in-law can create tension over acquiring animals between the son and his father. Normally, the father will not satisfy all the demands of his son. The father is interested to maintain himself as an independent household head. So he does not like to lose control over many animals to his son who will transfer them to his father-in-law's herd.
These conflicting interests over the herd lead to hostility between the father and his married son. Sometimes the son is not satisfied with what he has received, so he may steal a calf or a lamb from his father's herd to sell in a distant market. Such cases of animal thefts by sons reach the local courts and the fathers always insist on getting back their stolen animals. Also, competition over the father's herd often extends to affect the relation of brothers. This is because each married son is trying to secure a large share from his father's herd by transferring it to his wife's father's control. Moreover, these demands by married sons are always opposed by their unmarried brothers whose interest is to preserve more animals so as to get married and to establish their own tents.

Generally, the newly married man is in an inferior economic position in relation to both his father and father-in-law. The father-in-law is responsible for the management of his daughter's bridewealth and other gifts. The maintenance of these animals is carried out by the wife's brothers. At this stage the children have close relations with their mother's father and her brothers. They feel that their young father has no economic importance to them as long as he does not have a control in food source for them. The children receive their first training in herding techniques from their mother's brothers. During this phase in the developmental cycle of the family, which varies from ten to fifteen years, the mother and the mother's father and brothers are more influential over the children than the father. But the young father will gain influence gradually by building his own herd, and establish his authority over his own dependents, i.e., his wife and children.

One of the sources for the man to get animals is halagān, the help which he receives on his marriage from relatives. Usually, after the end of the wedding ceremonies, the bridegroom goes out to visit his kinsmen who give him presents in the form of animals, cattle, camels, sheep or goats, each according to his means. The kinsmen of a young man appreciate that
he has expended a lot of animals and money on his marriage and so he is in need of help to start building up his herd.

Another important source that a man has is the bridewealth which he pays on his own marriage. In fact by that payment he is starting the nucleus of his future herd. The bridewealth cattle and its issue will form part of his herd, although he cannot obtain control of it until he moves his wife's tent away from her father. In most cases, this movement depends on the life-span of the father-in-law. After the father-in-law's death, his herd will be divided among his sons and daughters. A daughter's share is derived from animals which she received from her father during his lifetime, as well as from her legal inheritance in the rest of the herd. At this point the husband will obtain control over all his wife's animals, and a substantial part of these animals comes from her bridewealth which has been multiplying and increasing through time. Although the animals are held in the name of the wife the actual control passes to her husband. She cannot dispose of animals either by selling them or allocate them to her children without the approval of the husband.

Moreover, a man's father's death is an important stage in the process of building his own herd. On the father's death the animals which are still left without being allocated will be divided among his sons and daughters. This division is supposed to follow the Shari'a law of inheritance with each son getting a full share and each daughter a half share. But in practice daughters always receive less than their legal right; or they may even be left out completely if they concede their shares to their brothers.

Thus, through time the man will build up his own herd to such a degree that he is in a position to fulfill the requirement of a household head. By this time also he will have one or more grown-up sons to co-operate with him in looking after the herd. Also during this later stage the man will have daughters at marriageable age, and thus the number of animals under
his control eventually increases by the bridewealth paid for these daughters.

When a man establishes his own herd he ultimately controls the source of livelihood and cash for his wife and children. So the father retains full authority over his children. The Hadendowa conceptualise this change in the individual's life by the proverb "Ot or raba lagāb" which means "a daughter's son is a bull." This is because a boy usually spends his childhood as a dependent of his mother's father who also trains him to be a herder. But as soon as he is mature he will start to work on his father's herd, and his mother's father does not get benefit of him as a herder. That is why a daughter's son is like a bull; as the bull has no milk and it is not made use of in the household for food supply.

To sum up, the distribution of animals in the diwāb shows that individual ownership can only be viewed in a dynamic time perspective. In fact, what is important is not ownership, but actual control. Usually the fathers are controlling herds on behalf of their sons and daughters for their later use. Also, the control of animals is always in the hands of males as fathers and husbands.

**Herding partnership**

In a preceding section, I described the pattern of labour deployment in the household and the necessary herding requirements for the elementary family to maintain itself as a unit of production. Herding is a difficult job which demands skill and a physical ability to protect animals in a hostile environment characterized by continual raids and animal-thefts. So it is usually carried on by males who are above the age of fifteen. On the other hand, domestic work does not involve such risks and young girls can assume major female tasks from the age of nine or ten. I have no complete records about age composition of households; but there are only three tents in the camp which fulfil herding requirements independently. The majority of the families have not an appropriate demographic structure, in
terms of age and sex, for providing labour either for herding duties or domestic functions. Therefore it is necessary for each tent to join a wider grouping in order to overcome the problems of labour shortage. When looking at the general conditions which govern and regulate the formation of such groups, we find that co-operation in herding activities follows the dynamic of patrilineal segmentation. At the same time, co-operation in the sphere of female duties is maintained within the framework of matrilocal residence. Accordingly each tent belongs to two different kinds of grouping: a herding-group and a tent cluster. The herding-group is a co-operative unit of production which usually consists of households either belonging to a father and his married sons, or brothers and their married sons, or to a man and his brother's sons. The tent cluster is a group of tents built near each other and they are moved together from one place to another. This tent cluster is usually made up of the mother's own tent and the tents of her married daughters or those of her sisters. Generally, it constitutes a co-operative group for female tasks, e.g., preparation of food, taking care of children and dismantling or repitching of tents.

However, the herding-group and the tent-cluster can overlap, completely or partly, as a result of divorce and death or due to preferred father's brother's daughter's marriage. First, I will consider here the composition of herding-groups before I speak in detail about tent-clusters.

Table 10 shows that thirteen out of the nineteen herding-groups in the Amrai diwāb consist of more than one household. The prevailing ties which link the co-herders in these herding-groups are ones of patrilineal and patrilateral kinship; most of the groups are composed either of brothers and their sons or father's brothers and brothers' sons. Usually the division of animals among brothers after their father's death does not lead to the breakdown of the herding-group. Although the father's herd is divided into individual shares, and each son obtains control in his own share, they continue their co-operation as before and keep their animals together in one herding-group. The adult male members in the herding-group
Table 10. The composition of herding-groups

<table>
<thead>
<tr>
<th>The household heads in herding-groups</th>
<th>No. of unmarried adults</th>
<th>Cattle</th>
<th>Sheep</th>
<th>Camels</th>
<th>Goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Two married brothers</td>
<td>5</td>
<td>25</td>
<td>65</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>(2) A man and his two brother's sons who are also his sons-in-law</td>
<td>7</td>
<td>37</td>
<td>70</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>(3) Three brothers (two married, one unmarried) and two married sons</td>
<td>4</td>
<td>15</td>
<td>30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(4) A father with three married sons and three brother's sons who are also sons-in-law</td>
<td>6</td>
<td>40</td>
<td>30</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>(5) Three brothers (one a widower) and their four father's brother's sons (one unmarried)</td>
<td>5</td>
<td>20</td>
<td>40</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>(6) A father with his four married sons and his two sons-in-law</td>
<td>8</td>
<td>39</td>
<td>55</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>(7) Two married brothers and three brother's sons (one of them a son-in-law)</td>
<td>4</td>
<td>35</td>
<td>60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(8) Three brothers, one unmarried, and four sons (three married, one widower)</td>
<td>8</td>
<td>42</td>
<td>55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(9) Three married brothers, their brother-in-law and two married sons of one of them</td>
<td>4</td>
<td>14</td>
<td>20</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>(10) Two married distant relatives, one of them with a married son</td>
<td>5</td>
<td>17</td>
<td>35</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>(11) A man with his son-in-law and unrelated man with his married son</td>
<td>4</td>
<td>9</td>
<td>12</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>(12) Two married men (distant cousins)</td>
<td>2</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

continued ...
Table 10 (continued)

<table>
<thead>
<tr>
<th>The household heads in</th>
<th>No. of unmarried adults</th>
<th>Cattle</th>
<th>Sheep</th>
<th>Camels</th>
<th>Goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>(13) Two married brothers (who married sisters) with their sister's husband and two of their wives' married brothers</td>
<td>7</td>
<td>30</td>
<td>45</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(14) One married man</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>(15) One married man</td>
<td>3</td>
<td>17</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(16) One married man</td>
<td>6</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(17) One married man</td>
<td>2</td>
<td>60</td>
<td>100</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>(18) One married man</td>
<td>3</td>
<td>80</td>
<td>200</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>(19) One married man</td>
<td>-</td>
<td>40</td>
<td>60</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
will provide a collective labour force for herding and watering their animals together. So this co-operation does not always imply that co-herders have collective rights in the joint herds. However, in some cases the members of a herding-group constitute an anticipatory inheriting group. This occurs particularly when married brothers continue working together on their father's herd as prospective partners after his death.

Though membership in a herding group seems to be based on patrilaterality, there are other factors which can influence the composition of such groups. These are the availability of labour resources and the size and composition of the herd. I mentioned before, that there are three households in the diwāb which fulfil herding requirements independently. These are represented by the herding-groups 14, 15 and 16 in Table 10 and their composition is as follows.

(14) This consists of a father with his two unmarried grown-up sons having a herd of a hundred goats, three cows and one camel.

(15) A father and his three unmarried sons owning seventeen cows only.

(16) A father with six unmarried adult sons. They have forty cows which are looked after by the elder five sons while the younger son attends school.

It is clear from the three examples above that labour sufficiency does not depend on the number of adult males in the household only, but also on the variety of livestock kept. Each of the two households 14 and 16 keeps one variety of animals, cattle. At the same time household 15 manages to cope with labour needs for three varieties because first, herding of goats does not entail heavy labour demands, and second the herd of cattle is very small. The only camel is always kept near the diwāb. Accordingly, it will be difficult for the three households, particularly 14 and 15, to diversify their livestock without running into labour shortage.

Moreover, co-operative herding depends also on reciprocal advantages among brothers. So it is preferable among brothers who have similar
numbers and the same varieties of animals. Joint herding is not advantageous for a man owning few animals and having a number of adult sons, if he has to co-operate with another brother who owns a large herd with one adult son only. Each household head is trying to make the benefits which he derives from joint herding equal to his labour input. Generally, co-herding among brothers is characterised by equal benefits as there is no great wealth differentiation among them, since they get nearly equal shares from one patrimonial herd. Normally, the brothers keep their herds together to form one herding group unless one of them is exceptionally industrious, or increases his animal wealth by utilizing other resources such as tribal and administrative jobs, or by being a successful cultivator in the Gash Scheme. Further, a man can have more animals than his brothers, if he has been favoured by his father, or if his wife gets a large number of animals from her father. Such circumstances help a man to accumulate more animals and to build a big herd. Such herd-owners always keep their animals separately and they can supplement their labour force by hiring herders either from inside or outside the diwâb.

There are three household heads in the table (Table 10) hiring herders though all of them have more than one brother in the diwâb. One of these is an omda (17 on Table 10), who has only two sons, but he affords to manage herds of sixty cows and thirty camels and a flock of more than a hundred sheep. The two adult sons in the household herd about ten cows which are always kept near the diwâb for milk while the rest of the animals graze on distant pastures and are looked after by hired herders. It is necessary to mention here that the animals of tribal leaders are more secure than those of the ordinary tribesmen. This is because the thieves either respect these leaders, or are afraid of their influence and authority in the courts. The second household (18) belongs to a tribal sheikh, who is also a successful cultivator, owning about eighty cows, fifty camels and two hundred sheep. Some of these animals are cared for by his three sons
while he hires six men to provide the herding requirements for the rest of his animals. The third example (19) is of a clerk in a khat court who has no sons, but he hires four herders to work on his herd of forty cattle and a flock of nearly sixty sheep.

These three examples show that rich people can easily manage to keep large herds of more than two varieties of animals because they can afford to hire the necessary labour. Each of the three types of livestock, kept by 17 and 18 in Table 10, requires different herding techniques on separate pastures throughout the year. Camels are tree browsers, so they graze on thorn bushes in the hill country. On the other hand, cattle and sheep need to be kept on relatively green pastures and they are watered more frequently than camels. The availability to rich men of hired labour enables them to provide a labour force for the various herding duties required by different types of livestock.

The tent cluster

The rules of residence among the Hadendowa are uxorilocal at marriage. Thus a newly married man usually moves to live in his wife's tent near that of her mother, or of her sister, if the mother is dead. At the time of fieldwork, the Amrai diwāb was divided into twenty-six tent clusters, varying in size from two to nine tents. The size of the tent cluster depends on the number of married girls in it; on every marriage a new tent is added. However, the size and composition of tent clusters are in continuous change through time.

Each tent starts as a residence for a husband and wife. The performance of domestic tasks requires more than one female. Obviously, no tent can meet such labour demands independently at the inception of its developmental cycle. So at this early stage the wife prepares the food for the husband in her mother's tent, and she will continue this arrangement for three years, or even for a longer period until the first child is born and grows
up, when she establishes her own hearth. Whether the wife has an independent hearth or not, she is assisted by her mother and other female members of the tent cluster to carry out domestic duties and to look after children.

Although a man moves to uxorilocal residence on marriage, he continues his herding activities with his father and brothers who may be living in a different tent cluster. The husband is responsible for providing his wife with the necessities of daily consumption, and they consume together the share which he gets from working with his father and brothers.

At a later stage, the wife will move her tent away from her mother to establish a new tent cluster in the diwāb. This movement depends on the number of daughters she may have and their ages. This is because the running of the tent needs a number of daughters to assist the mother in the domestic affairs. Further, every husband and wife prefer to move when they have daughters at marriageable age in order to start their own tent cluster with sons-in-law living with them. When these conditions are in favour of the movement, the tent is moved away from the wife's parents. According to this movement, uxorilocal residence comes to an end, and changes into neolocal residence. Usually within a short period, such a tent will grow into a tent cluster, as it has already included daughters at marriageable age. Thus the tent cluster develops in a cycle through time, the tent of an elementary family gives rise to a tent cluster by the marriage of its daughters. Then it breaks down on the removal of the tents of these daughters to form independent tent clusters. Therefore, marriage is an important factor in the process of expansion and dispersion of the tent cluster. The tent cluster expands on the marriage of its daughters; but on the other hand it starts to dissolve by the time of the daughter's marriage.

Nevertheless, this developing pattern is not typical for every tent cluster in the diwāb. There are some tent clusters which consist of four
generations, i.e., the daughter's tent is not moved even if she has married daughters with their children. There are a number of factors which lead to such a composition of tent-clusters. These factors are divorce, widowhood and polygamy. In case of early divorce or widowhood, a woman remains in her mother's tent cluster. Ultimately, if she has daughters, these will grow up in that tent cluster where they continue to live after their marriage. In Diagram X, a husband (generation 2 iii) died leaving his wife (generation 2 ii) and his children in his mother-in-law's tent cluster. Subsequently, his daughter (generation 3 ii) got married and has one daughter while she is still living in the same tent cluster. In this way we have a tent-cluster which includes four generations.

Similarly, polygamy creates the same situation since each wife is left continually in her mother's tent cluster. Consequently the daughters of polygamous marriages will marry and bear children in their mother's mother's tent cluster. Also, the death of a man's mother-in-law will give rise to such complex tent clusters. This happens when the wife is the only or the youngest married daughter in her parents' tent. Then in cases like this, she will continue to live in the same tent cluster to look after her young unmarried sisters and brothers, as illustrated by Diagram XI. This tent cluster is composed of four tents. While a married girl (generation 2i) is still living in her deceased mother's tent cluster, two of her daughters have got married there. Later on the tent cluster expands by the marriage of her sister (generation 2ii). Another example is indicated by Diagram XII. Here Hamid (generation 2iv) continues residence in the tent cluster of his deceased parents-in-law. Hamid's wife (generation 2i) who is the eldest daughter, has two brothers and three sisters, all of them are unmarried. Meanwhile a third tent is added to the tent cluster by the marriage of one of the sisters (generation 2vii). In this way the tent cluster expands. Now, it consists of three tents; one is the original tent of the dead mother (generation iii) where
A TENT-CLUSTER WHICH INCLUDES FOUR GENERATIONS

1

2

Adám

Ashá

Madání

Oháj

Ohér

Osháik

Árapa

Kaltoum

Shába

Kadíga

Záhara

Ahmed

Rogaya

Ali

3

Mohammed

Maryam

El-Hassan

Sittana

Nafisa

Saadiya

Áli

Rowda

Sittana

Baleit

Magina

Bíraisa

Bura

Bahash

Onur

Timini

Bakash

Halima

Diagram
EXPANSION OF THE TENT-CLUSTERS THROUGH MARRIAGE OF DAUGHTERS' DAUGHTER.

1

(i)

\[ \text{KARRAR} \]

(ii)

\[ \text{KHADIGA} \]

2

(i)

\[ \text{ROGAYA} \]

(ii)

\[ \text{MOHAMMED} \]

(iii)

\[ \text{HALIMA} \]

(iv)

\[ \text{MOHAMMED AHMED} \]

3

(i)

\[ \text{SHINGRAI} \]

(ii)

\[ \text{MADINA} \]

(iii)

\[ \text{OSHAIK} \]

(iv)

\[ \text{MOHAMMED EL-AMIN} \]

(v)

\[ \text{ASHA} \]

(vi)

\[ \text{ONUR} \]

4

\[ \text{ASIA} \]
EXPANSION OF THE TENT-CLUSTERS THROUGH MARRIAGE OF SISTERS-IN-LAW

G E N E R A T I O N

1

(1)

△

ONUR

(1)

○

NURA

(ii)

△

BABIKER

(iii)

○

ZENAB

(iv)

△

HAMID

(v)

○

NAFISA

(vi)

△

MUSA

(vii)

○

HALIMA

(viii)

△

MOHAMMED

3

(1)

△

ABD-ALLAH

(ii)

△

AKAR

(iii)

○

MUNA

(iv)

○

ASIA

(v)

○

MUSTAFA

(vi)

○

BAKHITA
her two unmarried daughters live, a second for her married elder daughter and a third tent for the younger daughter who has got married recently.

**Conclusion**

It seems from the foregoing discussion that the main principles influencing the composition of the tent cluster are affinity and uxorilocality. Here arises a contradiction between the principles underlying the compositions of herding partnership and tent cluster, that is to say between the dogma of patrilineal descent and uxorilocal residence. First, there is conflict at the level of households' economic resources over the control of animals between the patrilineal family and the tent cluster which a man joins after his marriage. This conflict is resolved from within the Hadendowa kinship system, by the pattern of the preferred father's brother's daughter's marriage. Men have a right to marry their first patrilateral parallel cousins, and this marriage is the most preferred for economic and political reasons. Economically, the difficult conditions which do not allow a young man to raise by himself all the animals he needs for marriage, leaves the bridegroom no option other than acceptance of the choice of bride by his father, who pays the greater part of the marriage expenses. Politically, the major reason which influences the father to choose a brother's daughter for his son is to maintain close relations along the agnatic line and to avoid conflict over animals. The figures in Table 11 represent all marriages conducted by male members of Amrai diwāb over three generations, that is to say, sons, their fathers and grandfathers. The total marriages are seventy-seven in number, of these forty-seven per cent approximately are marriages with an actual father's brother's daughter. Another forty per cent of the marriages are within the diwāb. The remaining thirteen per cent are outside marriages which have been arranged strategically for political purposes.
Table 11. The distribution of marriage in the Amrai diwâb, 1972

<table>
<thead>
<tr>
<th>Type of marriage</th>
<th>No. of cases</th>
<th>Percentage (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBD</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>Between kin within the diwâb</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>Outside the diwâb</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>100</td>
</tr>
</tbody>
</table>

As two or more brothers usually keep their animals together in one herding group, then by marrying a father's brother's daughter, the son will not transfer the bridewealth cattle to another herd. Perhaps the brothers may be keeping their animals in different herding groups, but even in such situations, where bridewealth is transferred from one brother's herd to another's will not pass outside the agnatic family. In both cases therefore, the herd of the same patriline will not lose animals, which is their inheritance from their father.

If patrilateral parallel cousin marriage is not possible for demographic or other reasons, then the second choice is any girl from the diwâb. The Hadendowa consider that any girl from the diwâb is a classificatory father's brother's daughter. Intra-diwâb marriage is preferred because it keeps authority over children within the agnatic kinship group; saves the diwâb's animals and it reserves the diwâb's territory for the agnatic descendants only. There is interdependence between the members of the diwâb, as one economic and political corporate group, and the individual economic and political interests. When any young man marries outside the diwâb, then he is going to transfer animals to his wife's diwâb. In this way his diwâb will lose part of its animal wealth. Although rights in animals are not held collectively by all members of the diwâb, any individual animals are beneficial to the whole diwâb in different situations; such as paying
to-diya or for other compensations. So use of animals is not limited to those who control them, but extends among the agnates through a process of mutual help and reciprocal obligations. Hence diwāb endogamy is preferred to outside marriage. The Hadendowa conceptualise the economic importance of such intra-diwāb marriage, saying "Idrokok tiritiök". The literal meaning of this proverb is that when a trough around your well is broken, then it is better to let the water go back into the well. In this way water is not lost, but is reserved in the well to be got out any time at need. Similarly, it is better to marry a girl who is an agnate, because the bridewealth and animals expended on such a marriage are not taken outside the diwāb. These payments are not lost, but they are reserved and the husband can make use of them as long as they remain circulating within the diwāb. In addition, the diwāb is interested in having all its young male members living together in one camp as their co-operation is always needed. When a man is living away his diwāb loses his support on a sudden dispute over an urgent matter such as the loss or theft of animals.

Thus, because of the preferred father's brother's daughter's marriage and diwāb endogamy, there is little difference between consanguineal and affinal relatives, and consequently there is no contradiction between the structure of herding groups and tent clusters. In most cases, individuals do not move from one diwāb to another at marriage, but they just move from one tent cluster to another within the same diwāb. So sometimes the herding group and tent cluster overlap or they may become congruent as is apparent from Table 10. Accordingly, various tents in the diwāb are related by a series of ties, that is to say herding partnership and residence, influencing them to remain together in one camp or move in close proximity to each other. Ties of common membership in a herding group circumvent the disruptive influence of uxorilocal residence on the patrilineal family. On the other hand uxorilocal residence with endogamous
marriage reinforce agnatic ties as this has a positive effect in binding
together different patrilineal families in one herding group. This is
because affinity with consanguinity creates a relationship among the
members of the diwāb, that far stronger than if they are agnates only.
CHAPTER 6

THE DEVELOPMENT OF THE GASH DELTA SCHEME

The annually inundated plains of the Gash Delta furnished a potential area for cultivation, grazing and surface water supply. The Halenga are regarded locally to have been the first occupiers of the Delta before they lost it to Segolab, Melhitkinab and finally to the Hadendowa. The largest part of the flooded area has been held by the Hadendowa since the beginning of the nineteenth century. The Gash flood used to water a strip of land of width varying from half a mile up to three miles. The Hadendowa used to clear and utilize some parts of this naturally flooded area for the cultivation of durra (sorghum vulgare). In addition, a native system of small channels (Shaiyotat, Sing Shaiyote) had been developed to lead water to irrigate more areas beyond the natural flood limits. The term shaiyote was applied both to the channel itself and to the plot of land irrigated by it. The total area under cultivation by the Shaiyote system varied from one year to another according to the size of the flood; but it was estimated to be about 7,000 feddans yearly.\(^1\) However, the indigenous population exploited the Gash resources successfully, though by a rudimentary irrigation system, to produce considerable quantities of durra for local consumption as well as for export. Historically the Gash Delta was one of the main grain supplying areas in the Sudan, with an exported surplus to Arabian markets across the Red Sea.\(^2\)

Traditionally the irrigated area was divided among different lineages of the Hadendowa, each with its own Shaiyote. The cultivation of the

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2. See Burckhardt, J. Lewis, Travels in Nubia, 1819, p. 400.
Shaiyôté was organized and supervised by the sheikh of the lineage who co-ordinated the labour for clearing the channel every year. The sheikh was entitled to eight 'ruba' of durra in addition to four days labour from each cultivator to cultivating his own private plot. Besides these cultivable areas, which were watered either by the channels (Shaiyôtat) or directly by the flood, there was a large area of grazing. Also such flooded area provided suitable sites for wells during the summer.

Then the first attempt at major irrigation works on the Gash river was initiated in 1841 by Ahmad Pasha Abu Widān, the Egyptian Governor-General of the Sudan from 1838 to 1843. He built a dam of dom trunks near the southern end of Kassala mountain and constructed a canal to irrigate about 7,200 acres on the plains west of Kassala town. Perhaps that early innovation was a part of his campaign against the hostile Hadendowa; thus he tried to subdue them by diverting the flow of the Gash away from their main grazing and cultivation area. In spite of continuous destructive attempts by the Hadendowa, that canal operated for thirty years until it was gradually blocked by silt and abandoned. Meanwhile, the Egyptians continued their plans to develop the agricultural resources of the Sudan with a view to achieving a profitable export trade from its products. Consequently cotton was introduced into the Gash Delta in 1865 by Ahmed Mumtaz Pasha, who was then the Egyptian Governor of Eastern Sudan. He started with an ambitious scheme for economic development with great interest in large scale irrigation projects from the Gash Hood. His proposals were followed by his successor Munzinger Bey who was more enthusiastic about cotton production in the Delta. But those early endeavours to establish cotton for the export trade were not successful.

3. Ibid.
partly due to the lack of efficient transport. Moreover, the Hadendowa, who were the largest indigenous tribe whose interests were closely bound up with the Gash Delta, did not participate actively in cotton growing. Obviously their main concern was to raise food crops while looking after their animals. Also they had been resisting Egyptian rule from the start, so it was a logical response to oppose its initiatives. However, the Egyptian plans were interrupted by, and lost in, the Mahdiya wars during which cotton growing was completely abandoned for the cultivation of durra.

After the reoccupation of the Sudan, the British administration in 1905 constructed a small dam and a canal about two miles south of Kassala town. The purpose of these initial works was to irrigate the eastern plains towards the present Khatmiya village. By that time, Sudan government was alarmed by the increasing Italian interests in the Gash waters in Eritrea. The Italians had started the study of the Gash to use its waters for irrigation projects. So the British government warned the Italians that no works must be begun until a detailed agreement had been made between the Governments of the Sudan and Eritrea to regulate the distribution of waters. However, the Italian study found that the only areas within Eritrea suitable for irrigation were Tessenei and Gulsa, both close to the Sudan border.

Following that, an Italian corporation proposed a project in 1906 for a concession over an area extending on both sides of the frontier to include the Gash Delta. The project stated that preference would be given to local labour, unless it was insufficient, then Italians would be imported. The corporation would provide hospitals, schools and other amenities for both Italian settlers and local population. When the land was fully developed the corporation would sell it to the Italian settlers at an agreed price.

2. Ibid.
but Sudan Government rejected the project realising that it would endanger the rights of the local inhabitants in the area. The Governor of Kassala Province at that time wrote, "I do not think this would be either advisable or possible, as the question of native rights of the Hadendowa at once presents itself on western and eastern sides of the river, to the north and outside of the present limits of the irrigation scheme as it now stands; and also the interests of the inhabitants around Kassala must be guarded."¹

Subsequently, Sudan Government took further steps to organize the local Shaiyote system. A public declaration was issued in 1918 by the Governor-General, stating that the Government had full rights of control in the Delta lands. "The whole of the land situated in the Delta of the river Gash is Government land and Government reserves its full rights of ownership of and in the said land and the flow of the river throughout the same area. The Government does not contemplate the revocation of the existing allotments of Shaiyotes in the Gash Delta unless and until a general scheme of irrigation for the Gash Delta is undertaken in which case provision will be made when such scheme is carried into effect for the annual allotment upon suitable terms to the persons then cultivating Shaiyotes of areas reasonably sufficient for cultivation."²

So by this declaration the indigenous inhabitants were left with usufructuary rights, but these rights would be also subjected to certain regulations laid down by the provincial and agricultural authorities. Accordingly, each Shaiyote was registered under the name of a sheikh on behalf of a divab or a lineage. The sheikh was made responsible for the maintenance of the irrigation channel, the clearing of the land before cultivation and the proper distribution of the flood water over the land included in his Shaiyote. Furthermore, it was the duty of the sheikh to

allot the irrigated land equally among his tenants on whose behalf he was holding the Shaiyote; and to collect the official tax on agriculture ushūr from them. In addition, the sheikh had to arrange for adequate watering of well centres which were found within the area of his Shaiyote. In return for these responsibilities, the sheikh had a right to claim one third of the area of the Shaiyote. Apart from that, the sheikhs under the new regulations were not entitled to any other payment from their tenants, whether in kind or in form of labour, unless that was offered voluntarily.

The chief crop which was cultivated during that early stage was durra, besides small plots of cotton which proved to be of very high quality. Thereafter sporadic efforts followed with varying degrees of success, to develop irrigation from the Gash river. The Government started by constructing several canals in the places of old Shaiyotes. So in 1922 the total irrigated area increased to 9,600 acres, of which half was cultivated with cotton and half with durra. Then in 1924 the area under cotton cultivation rose to 9,600 acres as the Government succeeded in irrigating about 14,400 acres.¹

Nevertheless, no serious attempt to expand cotton production was made until 1923, when the Italians started to build a dam at Tessenei to control and utilize part of the Gash flood in Eritrea, in spite of the British warning of 1905. Eventually, the Sudan Government got worried about the Italian activities, and so put forward its plans for a major agricultural project on the Delta in order to safeguard its claim to the Gash waters. At the same time the negotiations with the Italians continued until an agreement was concluded in June 1925, to regulate the flow and utilization of the Gash waters.²

1. Kassala Province "A report by the Department of Irrigation" File No. 2 M.I. - Gash, 1924.
2. Kassala Province, "Treaty Series No. 33 (1925), between the United Kingdom and Italy" Rome, June 12 and 15 1925.
But the Sudan Government realised that the success of such a project required heavy expenditure, first to organize irrigation and second to find transport for exporting the crop. So a British Company, named "Kassala Cotton Company" was founded in 1923, in partnership with the Sudan Government. Fifty per cent of the Kassala Cotton Company were subscribed by the Sudan Plantations syndicate. The company was given a concession over the Gash Delta to control the flood of the river and its tributaries for a period of forty years commencing from July 1924. In return for that concession the company had to spend two million pounds to organize flush irrigation by canalization and clearing of the Delta, and to promote cotton cultivation for commercial production. Part of that money was to be used in building a railway line from Haya to Kassala so as to link cotton production area with Port Sudan on the Red Sea. The Sudan Railways would operate the line when it was constructed. This railway extension was completed successfully by the company in 1924.

The company established its headquarters at Aroma, in the middle of the Delta. It was responsible for the management and supervision of agricultural operations, besides the transportation and marketing of cotton. So the company undertook the construction of offices, houses for its staff, and other buildings, such as stores and ginning factories. Moreover, seeds and loans to the tenants were to be provided in advance by the company so as to enable them to carry on their agricultural operations. On the other hand, the tenants were responsible for providing labour for their tenancies; and the clearing and maintenance of feeder channels which run directly into the plots. The tenants were to receive half of the proceeds of the crop after the deduction of the marketing charges. The remaining half was divided between the Sudan Government and the company into twenty per cent.

and thirty per cent respectively, on the proceeds from cotton up to forty thousand kantars. The proceeds from the next twenty thousand kantars had to be divided equally between the company and the Government. Then on all additional cotton the Government should take thirty per cent and the company twenty per cent.

It was necessary for the implementation of this agreement to persuade the local population, particularly the Hadendowa, to take an active part in the agricultural development. Thus on the conclusion of the agreement with the company, the Governor-General announced that the aims of the scheme were to benefit the indigenous population. He said, "For long years the Government has been devoting attention to developing the Eastern parts of the Sudan in the same manner as has been done in the Gezira and other parts. The war and its results have delayed the realisation of these intentions but it has been possible to arrange a plan which should bring great benefits to the people of Kassala. The development of the cotton growing will be done by the Kassala Cotton Company. But the company will be working as the agents of the Government, and none of the land will be transferred to the company. The land will all remain as it is now, Government land."  

The Government assured the Hadendowa that they would be given preferential allotment for cotton in the irrigated land and their traditional rights, whether in pasturage or in cultivation of food crops, would be observed under the new conditions. The agreement between the Sudan Government and the company stated that the latter had to provide for the existing grazing and watering rights in the concession area, or to arrange for flooding suitable alternative pastures. In addition, there had to be several defined open tracks for the animals to pass between grazing areas and well-centres. Furthermore, for each ten feddans of cotton, the tenant would be allowed

1. Kassala Province, File No. 66/F/4-1, 1924.
to cultivate one feddan of durra free of all charges for his own benefit. Also, the company had to organize the tenancies on a tribal basis by following a system of tribal allotment to the Sheikhs of Shayotes on behalf of their followers. The Government was hoping that such a system would attract more Hadendowa tenants and at the same time preserve the position of the Sheikhs of the Shayotes by incorporating them in the administration of the new scheme.

But shortly after the inauguration of the scheme in 1924, it became clear that the declared official policy towards the rights of the Hadendowa in the scheme area was incompatible with the company's commercial objectives. The main purpose of the company was to produce sufficient quantities of cotton in order to maximize its profit and cover the expenses of the scheme. So it undertook heavy initial expenditure on the construction of canals and clearing land for cultivation. The management assumed that the annual irrigated area available for cotton would be about 100,000 acres and thus the returns from the crop were estimated to be high. Nevertheless, such commercial prospects were encountered by adverse conditions from the start. The flood happened to be low for two successive seasons, irrigating only 13,000 and 30,000 acres during 1925 and 1926 respectively. Further, the yield of grown cotton turned out to be low; and also the price of cotton fell, putting the company in an even more difficult financial position.

When the flood came low for the second season, in 1926, the company directed all its efforts to securing a better standard of cotton production while neglecting the cultivation of food crops, and its responsibility to provide grazing and watering facilities for the pastoralists. Accordingly, the best irrigated areas were reserved for cotton only while durra was

restricted to the fringes and less watered parts of the Delta. The immediate result of such a policy was a severe food shortage all over the Hadendowa district, since durra production declined from 9,000 Ardeb\(^1\) in 1923 to 750 Ardeb in 1927.\(^2\) Subsequently the prices of grain went up. Moreover, the diversion of the flood from well-centres with the increase in canalization and embankment deprived the Hadendowa of most of their secure pastures and watering places.

In addition, the company's regulations forced large numbers of animal owners out of the scheme area on the ground that herds were damaging a considerable proportion of the crop and therefore reducing the average yield of other tenants. Eventually, it became increasingly difficult for the indigenous tenants to provide labour for cotton cultivation on the Delta and to attend their animals or grow durra on the rain pastures. The combination of these activities was a heavy drain on the labour resources of the household as the pastures could be fifty miles or even more from the Delta. So the Hadendowa decided on their priorities and they chose to remain in the hills with their herds, especially as the prices of cotton had been low and the average tenant would not be able to make more than five pounds in annual profit.\(^3\)

Then the company realised that its plans were confronted with unexpected natural and social conditions in the region. At that stage it decided to pursue a firm policy in order to protect its own economic interest against the rights of the Hadendowa. Therefore it claimed that the agricultural performance of the indigenous farmers was unsatisfactory and for financial considerations it could not afford to continue making

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1. Ardeb is a measure of capacity for grain equalling 198 litres, or about 420 pounds weight.
2. Kassala Province, File No. 66/F14-1, 1927.
concessions to them either in the allotment of tenancies or in providing grazing and watering facilities. Later on, the management of the scheme began to complain about absent tenants who were not devoting their time and labour entirely to cotton production but were occupied with their animals. Eventually, land was expropriated from the Hadendowa and allotted to immigrant tenants who came from Northern Sudan as well as West Africa.

The new policy of the company was to allocate land only to those who were ready to settle permanently on their tenancy, irrespective of their tribal affiliation. Ultimately, such policy changed the tribal basis of the scheme's organization, and the total tenancy of the Hadendowa was reduced in 1926 from thirty-eight per cent to twenty-three per cent.

Originally, the Hadendowa were promised by the Government that the scheme would enable them to participate in agriculture while maintaining their pastoral life. But they found that cotton cultivation did not benefit them materially; and even worse, their animals could not have access to pastures and wells as they had done before. They resented the interference of the company with their traditional way of life as cotton was grown on the place of the pastures and food crops. Then the opposition to the new agricultural development was further aggravated by the policy of expropriation. Although the Hadendowa recognized the right of the Government to control the Delta, they did not concede that their usufructuary rights should pass to the riverains and West Africans who were brought to the Delta by the company. The interests of these foreign cultivators and the Hadendowa were at variance. The riverains and West Africans were interested primarily in cotton cultivation while the Hadendowa wanted to enjoy the use of the Delta with freedom either for pasture or to grow durra.

1. Ibid.

2. Kassala Province, KP/SCR/G.5 1927, "A letter from District Commissioner - Hadendowa to the Civil Secretary."
This conflict in interests culminated in a series of hostilities between the Hadendowa on one hand and the company officials and foreign tenants on the other. Such hostilities put considerable strain on the provincial authorities who always tried to introduce certain measures by way of reconciliation. However, the company insisted on its position and refused to make any further concessions to the indigenous claims as far as land allotment was concerned. The conflicting objectives of the scheme were best summarised in the following report.

"A. The objective of the company may be simply stated, it is to make the scheme pay. They would grant allotments to the best cultivators, irrespective of race to whatever extent the letters of the agreement permit. They realise, of course, that certain concessions have to be made to the indigenous natives and that the Government is entitled to protect their interests, but they have their shareholders equally to consider and therefore accord their preference to the tenant for whom fewer concessions and a smaller measure of protection are necessary. They are naturally unconcerned with the interests of the purely pastoral Beja, and the bogey of 'detribalisation' has no terrors for them.

B. The Government on the other hand, while anxious that the scheme should pay, and that due regard should be had to the interests of the shareholders, regard this side of the matter as being secondary to the accordance of full justice to the tribesmen who have vested rights in the area affected, and attach essential importance to the clause under which the company is bound to pay due regard to native rights and interests within and adjacent to the concession area; and to political considerations which may in the opinion of the Governor-General affect the situation.

"Moreover, the Government does not desire to see the tribal organization of the Hadendowa disintegrated by a method of control exercised direct upon the individual, nor the Delta converted into an enclave of detribalised
It was apparent that the company had failed to recognize the implications of its commercial policies for the administration of the region. At the same time, the Government realised that cotton production under the company's regulations was not an economic proposition for the Hadendowa, and the agricultural policy was obstructing the establishment of an effective Native Administration in the Beja area. From the point of view of the provincial authorities, the Gash Delta was the only part of the Hadendowa territory where all their lineages intermingled and congregated in large numbers. As I have noted before, the configuration of the area does not permit large population concentration except in the Delta. Furthermore, the nature of the Hadendowa territorial system itself allows them to share the natural resources of the Delta in such a way that every lineage is represented by two or more diwabs with territorial rights in the Gash region. Therefore the integration of the tribe under one system of Native Administration could only be based on this congregation within the boundaries of the scheme. Hence the Government found it necessary to organize the scheme on a tribal basis in order to maintain and develop that existing tribal organization. Since the rights of asl here are more crucial, it was essential to follow the system of total tenancy by which the lineage sheikhs would be responsible for the distribution of the land among their followers, and the scheme had to operate through these sheikhs. In this manner, the sheikhs who formerly held Shaiyotes would maintain their economic and political position and thus emerge as a unifying element under the new conditions. Ultimately, the administration of the whole Hadendowa would be based on, and bound up with, the administrative system in the Gash Delta. But the policy of the company favoured individual allotment and in consequence would

1. Kassala province Archives: "The Kassala Cotton Company and the Gash" A report by the Assistant Civil Secretary 1927.
have disintegrating effects on the tribal structure of the Hadendowa as a potential framework for Native Administration. However, the following report may explain the vulnerable position of the Government in the dispute between the Hadendowa and the company:

"At the root of all difficulties lies the fact that the Kassala scheme is neither 'fish flesh fowl nor good red herring'. Had the project been one intended simply to bring a greater measure of prosperity to the tribes who had cultivation, watering and grazing rights in the Delta, the object might have been achieved under Government control. Or had the Government considered it justifiable to hand over the control of the Delta for the purpose of growing cotton to a company empowered to choose its own tenants and manage its own business, subject to certain necessary restrictions, again the project might have been a commercial success.

"But a middle course was steered. The Beja tribes interpreted the meaning of the scheme, in the light of the Governor-General's proclamation, in the sense of the first of the two alternatives described above. The company's interpretation was, roughly speaking, that of the second alternative. The result has been that neither side has been satisfied. The Beja have not got all the rights to which they are entitled and are therefore discontented. The company cannot be given the freedom of action which purely commercial considerations would dictate. Further concessions to one or the other are therefore called for.

"But any such concessions to either party must be at the expense of the other, unless the Government itself bears the loss. The political situations and considerations of equity make it impossible to contemplate any further concessions at the expense of the Beja. I assume economic considerations, if not equity, preclude further concessions by the company on a scale sufficient to remove all justifiable sense of grievances from the Beja and give reasonable guarantees for the future. The Government cannot
keep faith with the people unless the whole system of control in the Delta is modified in such a way as to enable the Government to exercise unfettered its duty of safeguarding by every possible means and at all times the interests of the local population. This appears to me to involve, first and foremost, a change from a basis of partnership between the Government and the company to which has been granted the use and occupation of a concession area in the Gash Delta.\(^1\)

The attitude of the company towards the Hadendowa increased the hostilities in the region and left no basis for future co-operation with them. The opposition to the company developed in 1927 to constitute a serious danger and immediate threat to the security and political stability in the Gash Delta. The Hadendowa leaders threatened action by themselves if the Government would not take active steps to protect them against the company. The gravity of the situation was explained by the district commissioner when he wrote calling for an urgent resolution of the conflict, "The Hadendowa feel that the Government, of whom the company is merely an agent, is responsible as having persuaded them to accede to the new regime and failed to secure their rights, particularly in the matter of grazing and growing of durra. They feel, in other words, they have been exploited. Therefore the Government is unreservedly responsible, in the eyes of the native, to control its agent and it has the power to do so. The province staff are nervous of the possibilities of a serious disorder. The Hadendowa are excitable and if causes for sudden resentment were to occur, the risk, I must believe is not a negligible one - the trouble might assume really serious proportions.

In other words, so long as the present regime in its essentials continues

1. Kassala Archives: "The Kassala Cotton Company and the Gash", A report by the Assistant Civil Secretary, 1927.
to hold the field, there can be no security for the future. The cumulative effect of a series of irritants experienced over a long period will sooner or later result in the bursting of a storm. More than temporary palliatives are necessary, and since the trouble is deep seated the remedies must go right to the root of the matter to be effective.\(^1\)

So it became evident that troubles were likely to break out throughout Hadendowa territory and therefore there would be no security for immigrant tenants in the Gash Delta Scheme. The Sudan Government in its own interests decided to take positive action to preserve the rights of the Hadendowa as far as possible. In fact, the Government was trying to avoid political unrest, particularly as the memories of the Mahdiya wars were not very far behind. Moreover, the official trend at that time was to implement a lenient pacifying policy in the tribal areas in order to set up a loyal native administration. So it would be necessary to be tolerant to the tribal claims and to support the tribal leaders even at the cost of the company's objectives for economic development. Hence the central Government intervened to safeguard the security of the tribal rights so as to maintain consistent policy for both agricultural development and Native Administration in the Hadendowa area. The Government was forced to terminate the concession agreement with the company for such political considerations in spite of economic disadvantages of this action on the country as a whole.\(^2\) Eventually, the scheme was changed into a Government enterprise in early 1928, and Kassala Cotton Company was compensated with 30,000 acres in the Gezira scheme.\(^3\)

A board called "The Gash Board" was set up immediately to take over

1. Kassala Province, File No.: KP/SCR/35.4.5. 1927.
the agricultural and administrative duties from the company, and to develop the resources of the Delta for the benefit of the local population. The policy was to continue the growing of cotton as well as to irrigate sufficient areas for durra cultivation and to provide adequate grazing together with more watering facilities for the herds. The area cultivated with durra had to be sufficient to ensure the local supply of food crops. Thus every tenant was entitled to have two feddans of durra for each ten feddans of cotton.

The purpose of the Government was to combine the tribal and agricultural interests in the Gash Delta. The success of such a policy depended largely on preserving the rights of the pastorals in the scheme. So the Hadendowa were given preference in cultivation and their tribal leadership was incorporated in the administrative machinery of the scheme. A committee for land allotment was formed consisting of the Nazir of the Hadendowa, the Sheikh of the Gash khat, the District Commissioner and the manager of the scheme. The management had to consult the Nazir annually on the size and allocation of the irrigated area for cotton and durra as well as on matters of grazing arrangements and flooding of well-centres.

Further, the scheme was divided into six administrative areas, each of which had a court called "the canal court". The canal court was presided over by a Hadendowa Sheikh nominated by the Nazir. These sheikhs were responsible for law and order in the Gash Delta. They settled disputes arising from animal trespass, thefts and other crimes. The appeals for the judgements in these courts had to go to the Gash khat Court and finally to the Hadendowa main court. The aim of that system was to strengthen the tribal organization of the Hadendowa and adjust it to the modern economic and social conditions created by the development of the scheme.

As a result of that policy, the land Allotment Committee tried from the start to reduce or eliminate gradually the non-Beja elements brought into the Gash Delta by the Kassala Cotton Company. The proportion of land allotted to the Hadendowa was increased at the expense of West Africans and riverains whose percentages decreased from eighteen to ten, and from thirty-six to nineteen respectively.1 Further, the central Government approved that the Hadendowa should have a prior right to hold more than sixty-five per cent of the total irrigated area every year. Besides that, West Africans and riverains were confined to the southern part of the Delta where the growth of the weeds was very heavy, while the Hadendowa were given the clean area in the north. That arrangement was adopted in order to encourage the Hadendowa to participate actively in agriculture by giving them the best land. The policy was also directed towards avoiding conflicts between indigenous and foreign cultivators over animal trespassing.

Thus official policy reaffirmed the paramount rights of the Hadendowa in the Gash Delta, so the scheme was set up to suit their tribal infrastructure. As I have mentioned before, each Hadendowa lineage is widely distributed between the Delta and other parts of their territory. Traditionally the members of the tribe as a whole regard the Gash Delta as a common tribal reserve for pasturage and growing of food crops. Accordingly, the administrative authorities made provisions for these common interests to allow as many divabs as possible to share the benefits of the new scheme. So the tenancy system was based on the lineage instead of on an individual allotment. The total share of the Hadendowa was divided among their various lineages, with each being allotted an inclusive area for all its members. Every lineage member had the right to claim cultivation in the

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share allotted to his lineage. Each lineage had an agricultural sheikh so as to continue the old system of the Sheikhs of the Shaiyotes. The agricultural sheikh was responsible for allotting the land within the lineage. He also supervised the agricultural operations, distributed seeds to his followers and received loans and payments for cotton on their behalf. In addition, the agricultural sheikhs together with the president of the court on each canal constituted an advisory committee to advise the agricultural inspector on problems of clearing land, embankment and distribution of water over the area.

The tenants were responsible for cleaning and maintenance of feeder channels, and for the erection and repairing of inter-plot banks. This was in addition to the sowing and picking of cotton, together with other agricultural operations like weeding, resowing and thinning. The crop was delivered to the Gash Board for ginning and marketing. The Gash Board deduced from the proceeds of cotton the expenses of the original cleaning of land before irrigation, pulling of cotton stalks, packing, transport, ginning and marketing charges. The remainder of the cotton income was divided according to the following percentages: fifty-five to the tenants, twenty-five to the Gash Board, seventeen to the central Government and three for public services in the Delta e.g. schools, dispensaries, and social clubs. Durra was cultivated by the tenants for their own consumption, and so they had to bear all the costs of its production.

With the reaction following the replacement of Kassala Cotton Company by the Gash Board, large numbers of the Hadendowa were drawn to cotton cultivation. But the subsequent fall in cotton prices during the early thirties decreased the interest in cotton growing. Consequently the Hadendowa deserted their land which became too grassy and expensive to

cultivate. The grass increased and threatened that the whole scheme would gradually become uncultivable. It became clear that without a supply of riverain and West African tenants, the Hadendowa would not be able to maintain the large area which they held. The manager of the Gash Board commented on the situation saying, "A danger for the future is that the natives have got much sympathy, and by allowing this sympathy to go too far large areas of clean land have been reverted into forests." The Gash Board was faced by the same problem which had confronted Kassala Cotton Company before. The Gash Board officials believed that West Africans and riverains could clean the grassy land deserted by the Hadendowa and cultivate it successfully. On the other hand the Government insisted strongly on the political aspect of the scheme rather than on the economic side. Thus a compromise was made to reconcile the two opinions by encouraging the agricultural sheikhs to employ West Africans and riverains to cultivate on behalf of the absent Hadendowa tenants on the basis of crop sharing, fifty-fifty basis. In this way the Government secured a better standard of cotton production and at the same time reaffirmed the long-range policy of preserving the rights of the Hadendowa in the Gash Delta. Such a policy has continued to the present day. Table No. 12 shows the distribution of tenancies among the total number of registered tenants for twenty years and the percentage of each group. The highest figures for West Africans and riverains were 3917 and 859 respectively, and that occurred in 1952/53 season. However the number of tenants from these two groups, particularly West Africans, was much higher than these figures. According to Aroma Rural Council records in 1972 the number of West Africans working in the Gash scheme was twenty thousand. Although the land has been held officially by the Hadendowa, the majority of tenants are West Africans.

### Table 12. The distribution of tenancies in the Gash Delta

<table>
<thead>
<tr>
<th>Season of Tenancy</th>
<th>Hadendowa</th>
<th>% of their share in the scheme</th>
<th>Other Beja</th>
<th>% of their share</th>
<th>West Africans</th>
<th>% of their share</th>
<th>Riverains</th>
<th>% of their share</th>
<th>Total number of tenants</th>
<th>% of Hadendowa tenants in sc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1944/45</td>
<td>49.4</td>
<td>18</td>
<td>27</td>
<td>5.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17,548</td>
<td>68.3</td>
</tr>
<tr>
<td>1945/46</td>
<td>50.7</td>
<td>17.1</td>
<td>27.5</td>
<td>4.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16,286</td>
<td>60.5</td>
</tr>
<tr>
<td>1946/47</td>
<td>50.2</td>
<td>18.2</td>
<td>23.2</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,836</td>
<td>66.8</td>
</tr>
<tr>
<td>1947/48</td>
<td>51.7</td>
<td>15.7</td>
<td>28.7</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,305</td>
<td>65.6</td>
</tr>
<tr>
<td>1948/49</td>
<td>60.5</td>
<td>5.9</td>
<td>25.6</td>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17,081</td>
<td>69.6</td>
</tr>
<tr>
<td>1949/50</td>
<td>63.2</td>
<td>6.7</td>
<td>23.2</td>
<td>7.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,705</td>
<td>63.8</td>
</tr>
<tr>
<td>1950/51</td>
<td>62.3</td>
<td>5.11</td>
<td>22.6</td>
<td>7.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,540</td>
<td>62.7</td>
</tr>
<tr>
<td>1951/52</td>
<td>66.1</td>
<td>6.6</td>
<td>21.2</td>
<td>7.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17,081</td>
<td>66.8</td>
</tr>
<tr>
<td>1952/53</td>
<td>14,966</td>
<td>64</td>
<td>2,174</td>
<td>7.7</td>
<td>3,917</td>
<td>22</td>
<td>859</td>
<td>6.3</td>
<td>21,916</td>
<td>68.3</td>
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<tr>
<td>1953/54</td>
<td>9,860</td>
<td>63.87</td>
<td>2,348</td>
<td>6.57</td>
<td>3,443</td>
<td>21.34</td>
<td>635</td>
<td>8.22</td>
<td>16,286</td>
<td>60.5</td>
</tr>
<tr>
<td>1954/55</td>
<td>8,584</td>
<td>63.86</td>
<td>1,166</td>
<td>7.26</td>
<td>2,546</td>
<td>21.37</td>
<td>540</td>
<td>7.51</td>
<td>12,305</td>
<td>65.6</td>
</tr>
<tr>
<td>1955/56</td>
<td>8,080</td>
<td>65.57</td>
<td>1,133</td>
<td>7.34</td>
<td>2,573</td>
<td>20.59</td>
<td>519</td>
<td>6.5</td>
<td>12,305</td>
<td>65.6</td>
</tr>
<tr>
<td>1956/57</td>
<td>9,449</td>
<td>65.82</td>
<td>1,372</td>
<td>5.25</td>
<td>2,902</td>
<td>20.52</td>
<td>572</td>
<td>8.41</td>
<td>14,295</td>
<td>66.1</td>
</tr>
<tr>
<td>1957/58</td>
<td>8,107</td>
<td>65.48</td>
<td>1,550</td>
<td>7.67</td>
<td>2,547</td>
<td>20.67</td>
<td>501</td>
<td>6.68</td>
<td>12,705</td>
<td>63.8</td>
</tr>
<tr>
<td>1958/59</td>
<td>8,324</td>
<td>63.86</td>
<td>1,279</td>
<td>9.04</td>
<td>2,443</td>
<td>20.89</td>
<td>458</td>
<td>6.21</td>
<td>12,504</td>
<td>66.5</td>
</tr>
<tr>
<td>1959/60</td>
<td>9,432</td>
<td>64.31</td>
<td>1,234</td>
<td>9.17</td>
<td>2,359</td>
<td>20.33</td>
<td>453</td>
<td>6.19</td>
<td>13,478</td>
<td>69.9</td>
</tr>
<tr>
<td>1960/61</td>
<td>9,491</td>
<td>63.46</td>
<td>1,573</td>
<td>10.48</td>
<td>2,386</td>
<td>19.82</td>
<td>457</td>
<td>6.24</td>
<td>13,907</td>
<td>68.2</td>
</tr>
<tr>
<td>1961/62</td>
<td>7,983</td>
<td>63.79</td>
<td>2,015</td>
<td>10.54</td>
<td>2,333</td>
<td>19.42</td>
<td>386</td>
<td>6.25</td>
<td>12,717</td>
<td>62.7</td>
</tr>
<tr>
<td>1962/63</td>
<td>7,553</td>
<td>63.77</td>
<td>1,934</td>
<td>10.91</td>
<td>1,974</td>
<td>19.28</td>
<td>305</td>
<td>6.04</td>
<td>11,266</td>
<td>64.2</td>
</tr>
<tr>
<td>1963/64</td>
<td>7,333</td>
<td>65.03</td>
<td>1,602</td>
<td>10.59</td>
<td>1,887</td>
<td>18.99</td>
<td>233</td>
<td>5.39</td>
<td>11,450</td>
<td>67.5</td>
</tr>
<tr>
<td>1967/68</td>
<td>-</td>
<td>65.0</td>
<td>9.0</td>
<td>19.0</td>
<td>7.0</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: There have been no systematic records since 1964, but the above percentages continue in the same trend, as shown by the figures of 1967/68.

Cotton continued to be the main cash crop and the Gash tenants drew considerable profits from the flourishing cotton trade during the late forties and early fifties. The following table (No.13) shows the peak years and decline of cotton prices. The tenant's profit per acre started to rise from 1948 until it reached its highest level in 1951/52 season. Then in the late fifties the yield of cotton began to decline due to several technical factors such as pests and heavy growth of weeds. Accordingly the cost of production went up bringing a decrease in the tenant's income which was further affected by the concomitant international fall in cotton prices. Meanwhile soil and agricultural research in the Sudan had proved that the Gash Delta was a suitable place for the production of castor.¹ So due to the decline in cotton yield, castor was introduced into the Gash scheme as a second cash crop, alongside cotton, in 1959. Eventually, the area under castor cultivation was increased gradually at the expense of cotton until the latter was abandoned completely in 1970/71 season (see table 14). At the beginning castor was confined to the southern part of the Delta where the lebad soils and moisture were most favourable for the crop. But later on castor substituted cotton in all parts of the Delta. Today the scheme is run by a Government Corporation called "The Gash Delta Agricultural Corporation" which was set up in 1967 to replace the Gash Board. The present constitution of the Corporation is as follows: The manager of the scheme who is appointed by the Minister of Agriculture and Forests, and one representative for Ministries of Local Government, Agriculture and Forests, Animal Resources and Irrigation. Furthermore, the Corporation now includes three members representing the tenants.² Although the system has undergone slight modifications, the new administration continues to operate almost on the principles laid down in

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Income in L.S.</th>
<th>Total Expenses of irrigation and supervision</th>
<th>Net income for distribution</th>
<th>Total Tenants' Share</th>
<th>Tenant's Income per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1944</td>
<td>342,646</td>
<td>119,678</td>
<td>222,968</td>
<td>11,484</td>
<td>3.406</td>
</tr>
<tr>
<td>1945</td>
<td>423,039</td>
<td>150,545</td>
<td>272,494</td>
<td>136,247</td>
<td>4.448</td>
</tr>
<tr>
<td>1946</td>
<td>214,942</td>
<td>76,365</td>
<td>138,577</td>
<td>69,289</td>
<td>2.580</td>
</tr>
<tr>
<td>1947</td>
<td>469,579</td>
<td>87,030</td>
<td>382,549</td>
<td>191,275</td>
<td>6.968</td>
</tr>
<tr>
<td>1948</td>
<td>1,353,522</td>
<td>216,407</td>
<td>1,177,110</td>
<td>568,558</td>
<td>17.105</td>
</tr>
<tr>
<td>1949</td>
<td>2,009,248</td>
<td>389,923</td>
<td>1,619,325</td>
<td>809,663</td>
<td>17.828</td>
</tr>
<tr>
<td>1950/51</td>
<td>2,147,814</td>
<td>444,166</td>
<td>1,702,849</td>
<td>851,424</td>
<td>18.898</td>
</tr>
<tr>
<td>1951/52</td>
<td>3,375,987</td>
<td>816,303</td>
<td>2,559,384</td>
<td>1,279,692</td>
<td>20.028</td>
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<tr>
<td>1952/53</td>
<td>1,987,746</td>
<td>507,238</td>
<td>1,480,508</td>
<td>740,254</td>
<td>19.655</td>
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<tr>
<td>1953/54</td>
<td>1,554,893</td>
<td>531,829</td>
<td>1,023,064</td>
<td>511,532</td>
<td>7.142</td>
</tr>
<tr>
<td>1954/55</td>
<td>1,085,446</td>
<td>237,283</td>
<td>848,163</td>
<td>424,082</td>
<td>7.070</td>
</tr>
<tr>
<td>1955/56</td>
<td>972,005</td>
<td>230,598</td>
<td>771,407</td>
<td>370,704</td>
<td>6.810</td>
</tr>
<tr>
<td>1956/57</td>
<td>1,468,945</td>
<td>275,986</td>
<td>1,192,959</td>
<td>596,479</td>
<td>16.749</td>
</tr>
<tr>
<td>1957/58</td>
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<td>334,572</td>
<td>776,986</td>
<td>388,493</td>
<td>5.663</td>
</tr>
<tr>
<td>1958/59</td>
<td>840,664</td>
<td>294,454</td>
<td>546,210</td>
<td>273,105</td>
<td>6.780</td>
</tr>
<tr>
<td>1959/60</td>
<td>1,042,787</td>
<td>298,192</td>
<td>744,595</td>
<td>372,297</td>
<td>9.825</td>
</tr>
<tr>
<td>1960/61</td>
<td>540,953</td>
<td>172,326</td>
<td>468,178</td>
<td>234,089</td>
<td>4.723</td>
</tr>
<tr>
<td>1961/62</td>
<td>566,383</td>
<td>181,860</td>
<td>384,523</td>
<td>311,289</td>
<td>7.840</td>
</tr>
<tr>
<td>1962/63</td>
<td>325,530</td>
<td>133,327</td>
<td>309,570</td>
<td>179,551</td>
<td>3.046</td>
</tr>
<tr>
<td>1963/64</td>
<td>120,160</td>
<td>68,288</td>
<td>180,739</td>
<td>14,839</td>
<td>1.418</td>
</tr>
</tbody>
</table>

1928. However, the composition of the Land Allotment Committee has been revised to include two tenants beside the Nazir of the Hadendowa, the manager of the scheme, District Commissioner and the chief inspector of agriculture. More recently, the administration has started to encourage the allotment of tenancies on individual basis, but the majority of the tenants still cling to the old system of agricultural sheikhs. For example, the number of individual allotted tenancies in 1971 was thirty only, out of two thousand Hadendowa tenants.¹

The castor crop is delivered to the corporation which is responsible for its hulling and marketing. After covering the costs of irrigation and agricultural supervision, the revenue from the production is divided in the following percentages: The tenants total share is fifty-seven; the Gash Delta Agricultural Corporation receives twenty-five; the Public Corporation for Agricultural Production, which is a central Government Corporation, gets eleven. Then three per cent goes to social services in the scheme and another three per cent to the tenants reserve fund. The remaining one per cent goes to Aroma Rural Council as compensation for the exemption of the tenants from agricultural taxes (ushur).

Table 14  The gradual increase of castor cultivation²

<table>
<thead>
<tr>
<th>Season</th>
<th>Cotton area in acres</th>
<th>Castor area in acres</th>
<th>Durra area in acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959/60</td>
<td>38,929</td>
<td>6,213</td>
<td>22,895</td>
</tr>
<tr>
<td>1960/61</td>
<td>28,498</td>
<td>8,986</td>
<td>12,434</td>
</tr>
<tr>
<td>1961/62</td>
<td>36,593</td>
<td>12,458</td>
<td>24,788</td>
</tr>
<tr>
<td>1962/63</td>
<td>21,204</td>
<td>11,298</td>
<td>10,970</td>
</tr>
<tr>
<td>1963/64</td>
<td>9,130</td>
<td>14,350</td>
<td>9,566</td>
</tr>
<tr>
<td>1964/65</td>
<td>15,205</td>
<td>22,304</td>
<td>25,675</td>
</tr>
<tr>
<td>1965/66</td>
<td>3,988</td>
<td>18,518</td>
<td>15,130</td>
</tr>
<tr>
<td>1966/67</td>
<td>328</td>
<td>31,905</td>
<td>22,979</td>
</tr>
<tr>
<td>1967/68</td>
<td>9,945</td>
<td>32,650</td>
<td>40,581</td>
</tr>
<tr>
<td>1968/69</td>
<td>1,026</td>
<td>24,366</td>
<td>13,090</td>
</tr>
<tr>
<td>1969/70</td>
<td>653</td>
<td>44,593</td>
<td>39,877</td>
</tr>
<tr>
<td>1970/71</td>
<td></td>
<td>44,491</td>
<td>35,740</td>
</tr>
<tr>
<td>1971/72</td>
<td></td>
<td>32,741</td>
<td>28,059</td>
</tr>
</tbody>
</table>

Paradoxically, while the cultivation of castor was expanding in the scheme, the average yield per feddan was declining. This caused a drop in the tenants' income in spite of the steady rise in the world prices of castor. Table No. 15 shows how the average yield of feddan and income of the individual tenant have been decreasing continuously since 1961/62. However 1967/68 season was the peak year of castor production in the Gash Delta because the flood succeeded in irrigating a larger area, and besides that the price of the crop was more favourable. But after that season the production and income started to decrease again.

Therefore the replacement of cotton by castor has not resolved the problems of cash cropping in the Gash Delta. The same social and natural factors which imperilled the production of cotton, by both Kassala Cotton Company and the Gash Board, have persisted to affect the production of castor. The impact of these factors on the development of agriculture in the scheme will be discussed in the following chapter; but castor has two more problems of its own. One of these problems is the pests, particularly a grass-chopper known by gabora, destroy large areas of castor every year in the seedling stage. Gabora has become an annual threat to the crop and in 1968/69 season reduced the cultivated area by seven thousand feddans.\textsuperscript{1} Although gabora attacks all crops indiscriminately, it is more selective to castor.

Moreover, the population in the Gash Delta has been exposed to castor allergy. The symptoms of this disease vary from sneezing and nasal congestion to asthma and skin manifestations. In certain cases the attack can be more severe causing the swelling of the face. Such symptoms appear on contact with the seeds during sowing, picking or hulling periods. Also the infection spreads with the dust coming out from the sites of the

\textsuperscript{1} A/Rahman, H. Ahmed, \textit{op.cit.}, p. 17.
Table 15  The decline in the production and income of castor

<table>
<thead>
<tr>
<th>Season</th>
<th>Total Production in Kantars</th>
<th>Average Yield per Feddan in Kantars</th>
<th>Average income per feddan in LS.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cotton</td>
<td>Castor</td>
<td>Cotton</td>
</tr>
<tr>
<td>1959/60</td>
<td>34,621</td>
<td>124,871</td>
<td>0.89</td>
</tr>
<tr>
<td>1960/61</td>
<td>44,599</td>
<td>140,280</td>
<td>1.56</td>
</tr>
<tr>
<td>1961/62</td>
<td>24,880</td>
<td>149,916</td>
<td>0.68</td>
</tr>
<tr>
<td>1962/63</td>
<td>10,058</td>
<td>164,683</td>
<td>0.47</td>
</tr>
<tr>
<td>1963/64</td>
<td>4,839</td>
<td>192,625</td>
<td>0.53</td>
</tr>
<tr>
<td>1964/65</td>
<td>10,101</td>
<td>283,344</td>
<td>0.66</td>
</tr>
<tr>
<td>1965/66</td>
<td>2,756</td>
<td>225,097</td>
<td>1.15</td>
</tr>
<tr>
<td>1966/67</td>
<td>-</td>
<td>377,820</td>
<td>0.64</td>
</tr>
<tr>
<td>1967/68</td>
<td>-</td>
<td>463,000</td>
<td>0.27</td>
</tr>
<tr>
<td>1968/69</td>
<td>-</td>
<td>21,430</td>
<td>1.08</td>
</tr>
<tr>
<td>1969/70</td>
<td>-</td>
<td>46,154</td>
<td>1.69</td>
</tr>
<tr>
<td>1970/71</td>
<td>-</td>
<td>34,491</td>
<td>-</td>
</tr>
<tr>
<td>1971/72</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1972/73</td>
<td>-</td>
<td>16,754</td>
<td>-</td>
</tr>
</tbody>
</table>

Note  Figures are not available for some years so the table is not complete.

1. The Gash Delta Agricultural Corporation, Annual Reports.
hulling machines or from the packed castor exposed to blowing wind. Sometimes even exposure to clothes worn by people working on hulling can cause disease. The majority of incidents occur during the period of picking and hulling, which extends from January to the end of June. However castor allergy is not confined to the tenants and hulling workers only, but it affects the whole population in the Gash Delta and the surrounding areas. The infection is carried by the dust storms and by transporting the crops on lorries and camels which pass through the villages. It has been found that the symptoms of allergy to castor are increasing steadily in the region and this presents a serious problem to the medical services.\(^1\)

Eventually, a considerable number of the tenants have deserted their tenancies to avoid the risks of this seasonal disease.

Despite the unsatisfactory yields and the spread of allergy among the population, the policy has moved towards establishing castor as the main cash crop in the scheme. The encouraging factors behind this policy are the suitability of the soils in the Gash Delta for castor, and the more secure prices of the crop in the international markets. So several attempts have been made to mechanize cultivation, weeding and picking of castor in order to increase the production. But since the seeds are to be sown immediately after the flood recedes, the land will not be sufficiently dry to implement mechanized sowing effectively.\(^2\) At the same time efficient mechanized weeding and picking, which can reduce the effect of allergy caused by direct contact with the crop, require mechanized cultivation for the plants to grow in straight rows with specified distances. The complexity of such problems has obstructed the mechanization of agriculture in the Gash Delta. Ironically, the same soil qualities which always support the plans for continuing castor cultivation, are also the main

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obstacles for mechanization. In addition to these technical problems there are more complex factors facing commercial agriculture in the Gash Delta. These factors will be considered in detail in the next chapter.
Irrigation system and agricultural organization

The Gash Delta has been demarcated into squares known locally as hod, literally basin, each with an area of 4,000 acres. These hods are numbered from the south to the north as shown on the map (No. 2). The hod is divided into twenty-five squares (sing. Murabba'), of equal areas. Further, the murabba' is sub-divided into sixteen plots of ten acres each, known as gitta and this is the basic unit for land allotment in the scheme.

The whole Delta is irrigated by six main canals which take the waters directly from the Gash river and run parallel to each other across the scheme from east to west. At the heads of all these canals, where they take off from the river, there are gauges to regulate and record the level of discharged waters. Then from each main canal stem a number of branch canals known as misgas, through which the water flows over the agricultural land. The word misga means both the branch canal and the area watered by it. This area is defined by embankments to control its irrigation.

The flow of the Gash is highly variable and the river can change its course from one year to another. So the costs of irrigation are very high because it is always necessary to maintain continuous engineering works to control the flood and readjust the location of embankments. Moreover, the heavy silt raises the levels of canals as well as the irrigated areas and this requires more labour for clearing and levelling the ground. Generally the irrigation work from this erratic river is arduous and unpredictable. The opening of the main canals depends on the conditions of the flood. It is always necessary to postpone the release of water in the canals until
the flood has continued to maintain a regular level for a number of days. This is because an early spate may stop and if the canals are open, the water will percolate into the land as far as it has reached, resulting in growth of weeds. However, it is equally dangerous to delay the releasing of water for a long period as the flood may fail suddenly. Usually, during normal floods all the canals should have been opened by mid-July. But when the flood is late the irrigation will not be started until the end of July.

The total area prepared for cultivation each year is usually divided into two parts, known technically as first and second rotations. The irrigation of the first rotation starts as soon as the river maintains a regular flow. This operation may continue for more than one month; and after that the waters are directed to the second rotation. This system has been adopted so that during years of poor flood the management of the scheme will be able to achieve better results by irrigating sufficiently part of the land, instead of spreading the limited amount of waters over larger areas without satisfactory results. The watering period varies from one part of the Delta to another depending on the type of the soil, the slope and the cleanessness of the land. The water will spread fast on clean areas with steep slopes and this creates narrow water courses which prevent good irrigation. On the other hand flat areas covered with grass will allow little spread of waters. So the most satisfactory irrigation is obtained on those areas which combine a smooth clean surface with a gentle slope.1

Normally, badobe soils take from twenty-eight to thirty days watering, while lebad soils which absorb water at a higher rate and to a greater depth require a shorter period, usually twenty-three to twenty-five days. However, the variable degrees by which water spreads out over different parts of the same misga makes it difficult to find out or estimate the amount of water

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needed for the irrigation of the misga. The whole system is elastic and it depends on the estimation made by the irrigation engineers, and on the duration and the volume of the flood. Therefore adequate irrigation always requires prompt decisions by the engineers throughout the flood season. Bearing in mind the characteristic features of the Gash flood and the Delta soils, the intensity of watering varies widely from one area to another. The land near the branch canal mouth is usually over-watered while that on the fringes is lightly watered. The best watered areas are allotted for castor and the marginal places are cultivated with durra.

The total area of the Delta is about 700,000 acres of which 400,000 is suitable for irrigation if there are enough waters and developed techniques for controlling the flood. But for the time being, the Gash Agricultural Corporation has managed to clean and prepare 250,000 acres ready for irrigation, though it has never succeeded in irrigating all this area in the last twenty years. The size of the irrigated area differs every year depending on the amount and duration of the flood. Again, these are highly variable from one year to another, depending on the intensity of rains on the Eritrean Highlands. The annual total volume of flow, (on Table 16), measured at Kassala for twenty years varied between 141 million cubic metres in 1963/64 and 1,174 million cubic meters in 1967/68 seasons. Also the table shows how the duration of the flood during the same period varied from 68 days in 1969/70 to 125 days in 1953/54 seasons. On the other hand the same table explains that the size of the irrigated area in the Gash Delta varied from 131,196 acres in 1956/57 to 38,302 acres in 1963/64. Although the extent of the irrigated area depends largely on the amounts of flood, there are other factors which affect its size every year, and the flood is not the only determinant factor. For example there was a decrease in the size of the flooded land from 51,835 in 1945/46 to 50,710 acres in

1. The Gash Delta Agricultural Corporation Annual Reports.
Table 16
The volume and duration of the Gash flood and the total irrigated area during twenty years.1

<table>
<thead>
<tr>
<th>Years</th>
<th>Amount of flood in million cubic metres</th>
<th>Duration of flood in days</th>
<th>Total irrigated area in acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950/51</td>
<td>750</td>
<td>100</td>
<td>100,888</td>
</tr>
<tr>
<td>1951/52</td>
<td>264</td>
<td>80</td>
<td>47,499</td>
</tr>
<tr>
<td>1952/53</td>
<td>600</td>
<td>104</td>
<td>102,726</td>
</tr>
<tr>
<td>1953/54</td>
<td>840</td>
<td>125</td>
<td>79,792</td>
</tr>
<tr>
<td>1954/55</td>
<td>497</td>
<td>112</td>
<td>64,996</td>
</tr>
<tr>
<td>1955/56</td>
<td>195</td>
<td>90</td>
<td>51,198</td>
</tr>
<tr>
<td>1956/57</td>
<td>776</td>
<td>101</td>
<td>131,196</td>
</tr>
<tr>
<td>1957/58</td>
<td>334</td>
<td>74</td>
<td>63,267</td>
</tr>
<tr>
<td>1958/59</td>
<td>328</td>
<td>95</td>
<td>62,058</td>
</tr>
<tr>
<td>1959/60</td>
<td>724</td>
<td>84</td>
<td>82,772</td>
</tr>
<tr>
<td>1960/61</td>
<td>207</td>
<td>90</td>
<td>49,725</td>
</tr>
<tr>
<td>1961/62</td>
<td>526</td>
<td>104</td>
<td>106,677</td>
</tr>
<tr>
<td>1962/63</td>
<td>173</td>
<td>86</td>
<td>54,187</td>
</tr>
<tr>
<td>1963/64</td>
<td>141</td>
<td>86</td>
<td>38,302</td>
</tr>
<tr>
<td>1964/65</td>
<td>273.15</td>
<td>not recorded</td>
<td>70,860</td>
</tr>
<tr>
<td>1965/66</td>
<td>864</td>
<td>106</td>
<td>49,169</td>
</tr>
<tr>
<td>1966/67</td>
<td>117</td>
<td>124</td>
<td>62,593</td>
</tr>
<tr>
<td>1967/68</td>
<td>652.7</td>
<td>84</td>
<td>103,948</td>
</tr>
<tr>
<td>1968/69</td>
<td>684.6</td>
<td>93</td>
<td>45,333</td>
</tr>
<tr>
<td>1969/70</td>
<td>835</td>
<td>68</td>
<td>80,353</td>
</tr>
<tr>
<td>1970/71</td>
<td>268</td>
<td>81</td>
<td>88,557</td>
</tr>
</tbody>
</table>

1946/47, though there was an increase in the amount of the flood from 426 million cubic metres to 666 million cubic metres respectively. Moreover, the highest flood was in 1963/64, when the volume of water reached 1,174 million cubic metres. But in spite of that the irrigated area in that season was 103,948 acres, which was relatively small, compared with 1956/57 season when the amount of flood was 776 million cubic metres and irrigated an area of 131,196 acres. Therefore the size of the irrigated area varies annually according to the variation in the flood, and it can also depend on the technical preparations for controlling and distributing the waters. So by careful estimations such as the dates of releasing water into the canals, control of water flow, as well as levelling of plots and adequate embankment, it may be possible to irrigate a larger area by low flood than by high flood with inadequate preparations. The experience of irrigation in the Gash Delta has shown that the higher the flood, the more difficult it is to control the water and confine it to the clean land. Normally, the canals have to be opened gradually before they can reach their full supply level, otherwise the flush will wash away the embankments and the water is wasted, so the engineers must make careful estimates of the level and duration of the flood to design the capacity for each canal. They have to consider all the possibilities as the high floods frequently sweep out the embankments and so it is necessary to locate alternative weirs and design other embankments. On the other, when the flood is low, the water may not reach the head of one of the canals and thus a substitute must be made before the flood recedes.

The land designed for irrigation in the Delta is cleared of bush and grasses every year. This is cropped on a three-year rotation system, that is to say one third of the area is watered and cultivated while the other two thirds remain fallow. The scheme is divided into six administrative
areas, each watered by one canal. The administrative area is under the
direct responsibility of an agricultural inspector who supervises irrigation
and cultivation in the area. Each year, the inspector prepares a proposed
list for land allotment on his canal. This is done before the flood and
in consultation with the agricultural sheikhs and the president of the court.
The proposals from all the canals in the scheme are submitted to the land
Allotment Committee for final approval and further recommendations. The
land is allotted on a tribal basis to the agricultural sheikhs who hold it
on behalf of their diwābs. The area allotted to each sheikh varies from
one year to another depending on the estimation of the total flood and on the
size of his diwāb. The average holding of the sheikh is about seventy-five
acres. The agricultural sheikh allots the land within his diwāb, and
produces a list to the inspector detailing the number and names of those who
receive plots. Besides that the agricultural sheikh has to assist in the
irrigation by watching the embankments and reports any overflow or damage.
Also he has authority to employ labour for the cultivation of any plot on
behalf of an absent tenant. In return for these duties the sheikh is
allowed to reserve for his own use the best irrigated plot of land within
his allotment. The size of such plots varies from ten to twenty-five acres
according to the size of his allotment as shown on Table No.17. In
addition, the figures on Table No. 18 explain the number of agricultural
sheikhs in each administrative area of the scheme. There is a decrease in
the number of these sheikhs on the two southern main canals of Mekali and
Kassala. This is because the majority of West Africans and riverains are
found in these two areas and most of them prefer to hold their tenancies on
an individual basis.

After the irrigation is completed the lists of land allotment are
reconsidered on the account of the actual flooded area. So the proposed
Table No. 17  
The size of the agricultural sheikhs, private plots in relation to the size of the diwab's allotment  

<table>
<thead>
<tr>
<th>The size of the diwab's allotment in feddans</th>
<th>The size of the sheikh's private allotment in feddans</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 - 50</td>
<td>10</td>
</tr>
<tr>
<td>60 - 90</td>
<td>15</td>
</tr>
<tr>
<td>100 - 140</td>
<td>20</td>
</tr>
<tr>
<td>150 - 190</td>
<td>25</td>
</tr>
<tr>
<td>200 - 240</td>
<td>30</td>
</tr>
<tr>
<td>250 - 290</td>
<td>35</td>
</tr>
<tr>
<td>300 - 340</td>
<td>40</td>
</tr>
<tr>
<td>350 - 390</td>
<td>45</td>
</tr>
<tr>
<td>400 - over</td>
<td>50</td>
</tr>
</tbody>
</table>

Table No. 18  
The number of agricultural sheikhs and the size of cultivated area on each canal  

<table>
<thead>
<tr>
<th>Canal</th>
<th>No. of sheikhs</th>
<th>Total area irrigated by the canal in feddans</th>
<th>Average area under each sheikh in feddans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hadaliya</td>
<td>168</td>
<td>15,131</td>
<td>90</td>
</tr>
<tr>
<td>Metateib</td>
<td>150</td>
<td>8,297</td>
<td>55.3</td>
</tr>
<tr>
<td>Tendlai</td>
<td>177</td>
<td>15,315</td>
<td>86.5</td>
</tr>
<tr>
<td>Degein</td>
<td>108</td>
<td>7,552</td>
<td>69.9</td>
</tr>
<tr>
<td>Mekali</td>
<td>98</td>
<td>6,039</td>
<td>61.6</td>
</tr>
<tr>
<td>Kassala</td>
<td>45</td>
<td>3,147</td>
<td>69.9</td>
</tr>
</tbody>
</table>

allotment to every diwab may be increased or decreased according to the available area being irrigated sufficiently for cultivation. This depends on the size of the flood and the success of the irrigation plans every year. When the final allotments are made, then the inspectors will issue the castor seeds to the agricultural sheikhs who in turn distribute them to the tenants. The tenants receive about six kilograms of seeds for every one feddan. The latest date for sowing the plant is by mid-September, but schedule is frequently interrupted due to the conditions of the flood and other factors as I shall discuss later. Generally, castor takes about six months to be ready for harvest. During these months, the crop needs continuous work such as weeding, resowing and thinning. Usually, there is a shortage of labour and the tenants have to hire extra workers in order to cope with the heavy working demands. The management of the scheme encourage the tenants to maintain a satisfactory standard of production by giving them loans for each agricultural operation. The amounts of these loans are estimated by the Gash Delta Agricultural Corporation according to the cost of living and the general trend in the wage labour in the region. So they vary from one season to another, but an example can be given from 1972/1973 season, illustrated by the following table No. 19.

Table 19 Agricultural loans for 1972/73

<table>
<thead>
<tr>
<th>The agricultural operation</th>
<th>The amount of the loan in L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sowing</td>
<td>1,000</td>
</tr>
<tr>
<td>First weeding</td>
<td>0,750</td>
</tr>
<tr>
<td>Second weeding</td>
<td>0,750</td>
</tr>
<tr>
<td>Third weeding</td>
<td>0,500</td>
</tr>
<tr>
<td>Fourth weeding</td>
<td>0,250</td>
</tr>
<tr>
<td>Picking</td>
<td>0,750</td>
</tr>
<tr>
<td>Total loan per feddan</td>
<td>4,000</td>
</tr>
</tbody>
</table>

In addition to the specified loans on the previous table, each tenant receives 15 P.T. for every one kantar of castor he delivers to the hulling centre. This final loan is made to encourage the tenants to transport the crop immediately after picking, otherwise it will be neglected and damaged in the fields. The peak period of picking is from the middle of March to early April. The crop is harvested by manual stripping and it is packed in sacks which are provided by the Corporation.

The agricultural loans and the prices of seeds and sacks are deducted from the tenant's account on the marketing of the crop. The amounts and value of these loans are a major source for complaints from both the tenants and the management of the scheme. The tenants claim that the loans are inadequate to cover the expenses of the agricultural work. On the other hand the management believes that the tenants spend the loans on purposes other than agriculture which they neglect completely. Actually the estimates made by the management for the cost of production are always lower than those made by the tenants. I shall show the difference in these estimates later when I consider the economic aspect of castor production in the Gash Delta.

The Hadendowa and the Gash Delta Scheme

Here I want to point out and discuss the factors which have made the Hadendowa cling to their pastoral life and resist all plans, so far, providing for their settlement in the Delta. Since the inception of the scheme in 1924, the Hadendowa have constituted intricate administrative and economic problems for successive administrations in the scheme. There is a set of complex and interdependent factors influencing the negative response of the Hadendowa to sedentary agriculture. Their traditional pastoral culture and values, the ecological setting in which this culture
is embedded and the nature of administrative organization of the Delta agricultural scheme— all these constitute obstacles to the sedentarization of the Hadendowa.

As to the cultural factor we find that animals play a prominent role in the socio-political organization of the Hadendowa. The full account of the animals' role has been given in chapter three. So for the Hadendowa to participate fully in commercial agriculture it would be necessary for them to settle in the Gash Delta and eventually change, not only their mode of livelihood, that is to say pastoralism, but also the cultural values attached to it. Therefore the Hadendowa cannot be expected to give up pastoral life immediately as their settlement does not require only economic innovation but also a gradual adjustment of their cultural values to the new agricultural development.

However, I do not take these cultural values in relation to the social role of animals as the major barrier against sedentarization. The main factors which hinder change to agriculture can be further illuminated by considering the differences between the patterns of labour allocation in the pastoral economy and that under sedentary agriculture. For example, it is necessary for the Hadendowa to adopt a different pattern of division of labour from that under pastoralism if they are to take cash-cropping or combine both pastoralism and cash cropping.

In the pastoral economy, herding is the major productive activity and is organized along kinship lines. So animal husbandry is the dominant economic career and it involves a series of continuous activities all the year round. Herding requirements, then, tend to determine the deployment of labour power in the household. The objectives of production here are designed to meet the consumption needs of the household and to fulfill various obligations of kinship reciprocity. At the same time, the cultivation of
food crops does not make heavy demands on labour because it can be carried out by one adult male member of the household. Once the seeds are sown during the rainy season, the crop does not need continuous work, until the harvest time. If the harvest is less than the food requirement of the household, one or two lambs will be sold to make for the supplementary grain from the local market.

Under the new circumstances in the Gash Delta, cultivation is the dominant occupation and the agricultural requirements determine the allocation and use of labour. Also the new system implies a different kind of production which is no longer organized and controlled by the household, but by the administration of the scheme, and extends beyond the limits of kinship since it necessarily involves wider sectors in the network of market economy. Now the Hadendowa have to cultivate a cash crop and to purchase their consumption needs of durra from the market. Moreover, cotton or castor cultivation is more demanding in labour and needs continuous work throughout the agricultural season which extends from September to April. When the watering operations are completed by the middle of September, the castor seeds must be sown within seven days or as soon as the land gets sufficiently dry for walking on. Sowing is carried out by hand. A man uses a saluka, (a digging stick) to make holes in the ground and drops the seeds in the holes. These holes are made in rows according to certain instructions given by the agricultural inspectors; for example instructions such as spacing between holes and rows, and the number of seeds in each hole. Usually it takes a man about three days to sow one feddan of castor. In addition to heavy demands on labour during the peak seasons of sowing and picking, the tenants in the scheme are faced with the problem of weeds. A distinct feature of the Gash Delta is the vigorous growth of weeds which germinate during the flood and curtail the development of the crop and
consequently affecting its yield. The most threatening species of weed is haya (Phynchosia memmonia), a creeper which climbs over castor plants. Haya is known locally as the most nourishing grazing for animals. So the Hadendowa do not carry out its weeding properly in order to preserve it for pasture. However, it is found difficult to apply mechanized weeding because the land is too wet after the flood subsides and the crop must be sown immediately to insure its successful growth.¹ Until now no effective method is devised for the control of weed, but the use of various weed killers is in experimental stage. So it is an arduous task for the tenants to carry out weeding by hand which costs time and labour, especially when it has to be done three or four times every agricultural season. The following table (No.20) shows the average number of working days for one feddan of castor as estimated by the tenants' Union of the Gash Delta Scheme.

Table No.20  Average tenants labour inputs per feddan of castor

<table>
<thead>
<tr>
<th>Agricultural operation</th>
<th>Labour required in man-days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sowing</td>
<td>2.4</td>
</tr>
<tr>
<td>First weeding</td>
<td>5.6</td>
</tr>
<tr>
<td>Second weeding</td>
<td>3.4</td>
</tr>
<tr>
<td>Re-sowing</td>
<td>1.3</td>
</tr>
<tr>
<td>Third weeding</td>
<td>2.2</td>
</tr>
<tr>
<td>Fourth weeding</td>
<td>2.5</td>
</tr>
<tr>
<td>Thinning</td>
<td>1.3</td>
</tr>
<tr>
<td>Picking</td>
<td>13.7</td>
</tr>
<tr>
<td>Building of shelters</td>
<td>09.7</td>
</tr>
<tr>
<td>Transport of drinking water</td>
<td>17.2</td>
</tr>
<tr>
<td>Packing and transport</td>
<td>04.6</td>
</tr>
<tr>
<td>Total days of work</td>
<td>63.9</td>
</tr>
</tbody>
</table>

¹ The Gash Delta Agricultural Corporation, Fil No.2.M.1.11 "The Growth of weeds in the Delta".
The tenants has to start the first weeding after ten days from sowing and before the grass develops and covers the castor in the seedling stage. This is the most difficult part of the agricultural operations and must be completed within one week to allow the crop to grow up. Then the second weeding begins by late September, to be followed by the third weeding which continues until the middle of October. During the same time thinning and resowing is going on, adding more pressure on the labour resources of the tenant. Finally, comes the fourth weeding by about the end of October or early November. Picking starts in January and continues until early April. Again this is a laborious task as it is done by hand and it usually takes two or three men more than two weeks to finish the picking of two feddans.

The traditional grazing system of the Hadendowa and their adaptation to their natural environment are incompatible with the demands of Agricultural labour. Firstly, the time of sowing in September is in conflict with the labour requirements for herding, as at this time most of the young men have to be moving continuously with the herds away from the Gash Delta. Secondly, the harvest period, from January to April, coincides with the annual rush of the animals towards the Delta. So there is a need for more herders to hold them back from going into the fields, otherwise they will cause serious damage to the crop. However, some families may prefer to keep their animals all the year round near the Gash Delta. But the rules of the scheme do not allow the presence of animals within or near the scheme boundaries from sowing time until the harvest. So the agricultural authorities always ask such families to take their animals away from the scheme, instead of encouraging them as potential sedentary tenants.

Therefore most of the pastoral families cannot carry out herding and agricultural duties simultaneously. This is understandable if we bear in mind the fact that it is always difficult for the household to fulfill all
the requirement of herding independently, even for a short period during its developmental cycle. I have explained earlier in Chapter 5 that in a diwab of seventy-one households, there are only three households, or about four per cent (Table No.10) with sufficient labour supply to meet the herding demands from among their members; while the remaining sixty-eight households (about ninety-six per cent) are facing labour shortage. Three of these are hiring herders whereas each one of the rest of the households in the diwab has entered into a herding partnership. I shall show later on that these households which hire herders can also hire agricultural labourers; and thus they can cope with both pastoral and cash cropping labour demands. However, it is suffice here to say that nearly all the households in one diwab have insufficient labour to provide for both herding and castor cultivation. The negative response to sedentary agriculture as a result of this permanent shortage of labour may be partly due to the traditional sex division in Hadendowa society. Women are excluded from taking part in herding or agricultural activities. This restriction increases the strain on the male labour resources of the household and makes participation in agriculture even more difficult.

However other factors, ecological, as well as the political and economic circumstances which have accompanied the development of agriculture in the Gash Scheme, combine to maintain the continuity of pastoralism as the dominant mode of life. The system of land allocation and the administrative organization of the scheme, which were both adopted for political considerations, are not in favour of sedentary agriculture. This is because land is allocated on a tribal basis to agricultural sheikhs who hold it on behalf of their diwab members. This system suits the traditional territorial system of the Hadendowa which does not recognize individual rights of asl ownership in land. Similarly, the tenancies in
the Gash Delta circulate among the members of the diwāb to avoid the establishment of individual claims to land. The majority of the tenants cultivate for one season and then they may leave the scheme area. Subsequently their cultivation plots either will be cultivated by the agricultural sheikhs who employ labour on behalf of absent tenants; or allocated to other members of the diwāb. Such a system does not give the tenant a greater chance to associate himself and his dependents with permanent rights to a fixed tenancy, as happened in similar agricultural schemes, for example the Gezira; and in consequence does not help to convert the Hadendowa to sedentary agriculture. Also, the characteristics of the Gash flood varying from one year to another and the present methods of flush irrigation add more unfavourable conditions for settlement in the Delta. The irrigated area varies annually in size and location according to variation in the flood as well as to the requirements of the irrigation plans. Therefore it is impossible to speak of standard sizes for the individual tenancies; and a specific plot cannot be maintained under constant cultivation. Thus no farmer cultivates in the same area every season, but his tenancy changes from season to season with the nature of the flood and the rotation system of irrigation.

Furthermore, the dependence of the administrative organization on the agricultural sheikhs has re-enforced the traditional pastoral pre-occupation rather than encouraging adaptation to sedentary agriculture. The scheme authorities have been faced by the problem of a pastoral population being averse to settled cultivation, so they rely completely on these sheikhs in the running of the scheme. The administration has no direct contact with the tenants and thus the sheikhs play an important role in carrying out the agricultural plans; in fact they are the only link between the management and the Hadendowa. The official recognition of the agricultural sheikhs together with the system of land allocation have encouraged the Hadendowa
tenants to remain with their animals in the hills while the tenancies are annually registered in their names. At present there are more than sixteen thousand registered tenants of whom only five thousand, or about thirty per cent cultivate regularly, whereas the remaining seventy per cent visit the scheme occasionally in order to ensure their territorial rights of asl.

So absenteeism has become one of the main problems which confront the administration as over two-thirds of the tenancies are allocated to the Hadendowa. Cultivation has to be delayed frequently until the end of September or early October, instead of starting in the middle of September, because the majority of the tenants are absent. Such circumstances have reduced the productivity of the scheme due to the fact that the seeds must be sown with minimal delay, before the soils do not get dry, otherwise the yield will be low. However climatic conditions play a major part in the rate of absenteeism. When there is a good rainy season over the region as a whole, most of the Hadendowa tenants prefer to remain in the hills where they can find adequate grazing and sufficient rain cultivation of food crops. This usually creates a labour shortage in the scheme and the agricultural plans are disrupted. On the other hand, during years of poor rains, which can also be concomitant with low floods of the Gash river, there is pressure on the scheme area from both human and animal populations. In this last situation there will be a land shortage and the authorities can neither meet the high demand for cultivation plots nor protect the crop from the large number of animals rushing towards the Delta. Generally, animals constitute a constant threat to the cultivation and according to the official records of the scheme about thirty per cent of the crop is damaged annually by the herds.2

Usually the agricultural sheikh employs West Africans or riverains to cultivate the land allocated to absent members of his diwab. This has led to the creation of labour shortage in the Gash Delta during sowing and harvest periods. Since the sheikh always gives preference to his own plot, most of the tenancies have been neglected or poorly attended. Thus the production of such tenancies is relatively low. In addition, as I mentioned earlier, that the agricultural sheikhs receive all the payments on behalf of the cultivators. Because the administration has no contact with the registered tenants, these sheikhs have the opportunity to appropriate a considerable proportion of the loans and the income of the crop. So the tenant gets little or no benefit of the returns from the plot which is registered in his name. In consequence, the tenants have been indebted to the administration of the scheme as well as to the local shop-keepers from whom they purchase commodities by credit. Eventually, the shop-keepers have gradually acquired cultivation rights from the tenants in settlement of the accumulated debts.

Moreover, the size of individual tenancy in the scheme is not big enough to establish profitable farming, and therefore there are no economic incentives for sedentary agriculture. Since the land is open for all members of the Hadendowa tribe to claim cultivation, the pressure on available land has been increasing with the increase in population and this leads to further fragmentation in each diwab's allotment. The demand for agricultural plots depends on the conditions of the rains. So during seasons of poor rains the demand is high, though there is less land for distribution, while the demand is low in years of good rains. Although the minimum size of individual tenancy is set by the administration at five feddans, in fact it is difficult to attain this minimum due either to inadequate irrigation works beforehand or to the low level of the flood.

The average individual tenancy in the scheme today is about three feddans only. Taking into consideration this insufficient size of the tenancy, time and the amount of labour needed for castor cultivation, the yield is remarkably low. The average income from one feddan of castor during 1970/71 season was approximately L.S. 7.250, while the tenants estimated the costs of production per feddan to be about L.S. 8.056. Therefore, according to this estimation the tenant would be running his cultivation at a loss. Thus the tenants today complain that the amounts of the loans issued to them by the corporation are much less than the expenses needed for establishing the crop. (For the details of these loans see Table No. 19). But the administration of the scheme has its own estimates for the necessary expenditure which is spent by the tenant per feddan. This is put to the amount of L.S. 6.290. Nevertheless, the difference between the two estimates is not significant. So even if we accept the official estimates and assume that the tenant can make a profit of two Sudanese pounds from one feddan of castor, this is still insufficient return compared to the time and labour spent on production (See Table No. 20). As a result of this lack of economic incentives and security in the agricultural sector, the Hadendowa prefer to continue their pastoral system. They have come to realize that permanent settlement will deprive them of their animal capital and eventually, they will lose a more secure means of livelihood.

An economic study of productivity in the scheme suggests that the tenant would not maintain a profit unless the size of his tenancy is raised to about twenty feddans, and at the same time he draws thirty per cent of the labour requirements from within his household. The figures on Table No. 21

indicate the increase in profit in relation to the increase in the size of the tenancy, and the percentage of labour supplied by the members of the household.

Table No. 21  
Profit and loss on castor and durra under two different sizes of tenancies with different percentages of labour contributed by the tenant in 1964

<table>
<thead>
<tr>
<th>Percentage of labour contributed by the tenant</th>
<th>Profit or loss (in L.S.) from the average size tenancy in the scheme (4.5 feddan)</th>
<th>Profit or loss (in L.S.) from tenancies more than twenty feddans</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>7.079 (loss)</td>
<td>43.831 (loss)</td>
</tr>
<tr>
<td>10</td>
<td>5.605 (loss)</td>
<td>27.410 (loss)</td>
</tr>
<tr>
<td>30</td>
<td>1.511 (profit)</td>
<td>4.804 (profit)</td>
</tr>
<tr>
<td>50</td>
<td>8.626 (profit)</td>
<td>37.027 (profit)</td>
</tr>
<tr>
<td>75</td>
<td>17.524 (profit)</td>
<td>77.309 (profit)</td>
</tr>
<tr>
<td>100</td>
<td>26.422 (profit)</td>
<td>117.592 (profit)</td>
</tr>
</tbody>
</table>

The previous table reveals that the average size tenancy can only produce a maximum profit of about twenty-six Sudanese pounds when the tenant succeeds in providing all the labour demands from among the members of his household. On the other hand, the profit obtained from a larger size tenancy, that is to say of more than twenty feddans, is around L.S. 117.592. However, even this is below the average income in the Gezira scheme. A Gezira tenant who cultivates ten feddans of cotton and another five of durra, and supplies only seven per cent of the labour requirements get an annual income of L.S. 175.212.

But, as I have discussed before, the majority of the Hadendowa tenants cannot participate fully or partly in agriculture due to constant labour shortage in their households. Therefore, it is difficult for them under the present circumstances to raise their income from castor production. Moreover, the uncertainty of the flood and the system of land allocation preclude the increase in the size of the tenancies in the Gash Delta Scheme. But in spite of fluctuations in the total irrigated area and the decrease in the size of average tenancies, the tribal leaders and the agricultural sheikhs still have sufficient profitable plots. The average holding of an agricultural sheikh is about thirty feddans, (See Table No. 17), and he can increase it by cultivating part of the tenancies allocated to absent members of his diwāb. Further, the tribal leaders cultivate even more larger areas because of their powerful position in the administrative organization of the scheme. The total area registered to the prominent tribal leaders and court presidents in 1970 was 2,452 feddans with an average of about 130 feddans for each sheikh. However, these areas were reduced in 1971 to 700 feddans as part of the Government policy to undermine the native administration and the influence of tribal leaders. ¹ Though the estimated return per feddan is relatively low, these tribal sheikhs accumulate considerable profits from agriculture. This is because first, they can obtain plots large enough to establish profitable farming and second they can afford to hire labour. Therefore, they have succeeded in making use of the opportunities created by commercial agriculture and at the same time increasing their animals wealth. They use part of their income from cultivation to invest in the pastoral economy. They are not faced with the problem of labour shortage in combining both pastoralism and castor

production like the ordinary Hadendowa.

In this chapter I have discussed the factors which discouraged the Hadendowa from associating themselves fully with commercial agriculture in the Gash Delta. The sedentarization of the Hadendowa and their transformation of their economy necessitates a balanced and gradual adaptation between their traditional pastoral system and the national policies regarding agricultural development in the area. As I have already shown the incompatibility is not between pastoralism and agriculture as such, but lies mainly in the nature of labour requirements of the crops cultivated. Cotton and castor are both too much demanding in labour which is only possible at the expense of the labour necessary to keep the indispensable animal wealth which is so highly cherished by culture and values of the Hadendowa.

In addition, there are the ecological factors and the shortcomings of the administrative set up in the scheme which have contributed to the persistency of the pastoral preoccupation.
CONCLUSION

The average individual ownership of animals among the Hadendowa is remarkably low in comparison with the major pastoral tribes of northern Sudan like Baggara, Kababish or Rufa'a al-Hoi. This is partly because the Hadendowa live in a marginal environment which is also one of the poorest in the country as a whole. They frequently face successive years of drought to the extent that a large section of their population fails to find milk or produce durra for daily consumption. But in spite of that, all attempts to settle them in the Gash Delta have failed and they still cling to their pastoral mode of life. In this thesis, I have discussed the factors which contribute to the negative response of the Hadendowa to sedentary agriculture. The Hadendowa resistance to sedentarization cannot be attributed to one factor, but it is necessary to relate it to their social institutions, their ecology as well as to the current political and economic circumstances in the Gash Delta Scheme.

The prevailing argument in anthropological literature is that the policies for the settlement of nomads are always obstructed by cultural values associated with animals, which is the general characteristic of such societies. The Hadendowa are no exception to this, as animals among them have a significant social aspect around which kinship ties and political interests are moulded. Besides that Tu-bedawie language is rich in poetry, proverbs and songs praising animals and exalting owners of large herds. This means that a change in these values is absolutely vital for the success of converting the Hadendowa to a sedentary population. Therefore I suggest that the chances for the settlement of the Hadendowa would have been greater, if the policies of sedentarization were implemented gradually allowing a longer period for social readjustment. But commercial agriculture was introduced suddenly for external interests rather than for the interests of the Hadendowa themselves. As
I have explained in Chapter 6, the development of the Gash Delta agricultural scheme was mainly an outcome of a political competition between the Italians and the British for the Gash waters. Moreover, the Delta was handed over to a commercial company to produce a cash crop for the export market and to contribute to the economic development of the Sudan at large. Since pastoralism and cash cropping are two different economic systems with different labour requirements, the Hadendowa were confronted with labour shortage in combining the two occupations. This is in part because cash-crop farming is more demanding in labour and partly because the agricultural schedule contradicts with the seasonal movements of animals. Consequently, the Hadendowa gave priority in the allocation of available labour resources to the pastoral sector while they remained in the hills with their herds.

In my view, that response was a result of the immediate adverse effect of the scheme on their pastoral mode of life. The company being a commercial enterprise, did not take into account the social and economic importance of animals in Hadendowa culture. Inevitably, the regulations of the scheme were directed chiefly to the advantage of agriculture. Since the inception of the scheme pastoralism and agriculture have been regarded as polar opposites and animals are always considered dangerous to the crop, and thus must be kept away from the Delta. So the Hadendowa were opposed to the agricultural plans which showed little or no interest in their animals. This opposition was further aggravated by the quick encroachment of the scheme on the best part of their grazing land. Large areas had been reserved for cultivation and the herds were no longer allowed to graze freely; they were seized if found trespassing on farms and their owners were fined. In addition, each Hadendowa diwāb, or extended family, prefers to live and move separately from other similar groups in order to avoid conflicts over pastures and water sources. Accordingly they dislike mingling in
the agricultural villages with West Africans and riverains who have been attracted by cash-crop farming in the Delta. The interests of these migrants and the Hadendowa in the resources of the Gash Delta were basically different. The development of the scheme was very much in the interests of the riverains who have made use of both agriculture and trading benefits. Also the Gash Delta agricultural scheme was established at an early stage before the Hadendowa had been prepared to accept the innovation. Their consumer demands and material needs were not extensive enough to be integrated in a wider economic sector. It was difficult for them to understand that the prices of cash crops were regulated by the market mechanism and it would be a long time before they received the payments on their production. For all these reasons, the unsuccessful start of the scheme developed a suspicious attitude on the part of the Hadendowa toward sedentarization. In fact their relationship with Kassala Cotton Company is an important background factor to the more recent failures of the scheme.

When the government took over the administration of the scheme from the company, for political considerations it tried to make the Hadendowa benefit more from agriculture without disturbing their tribal organization. So it adopted a system of land allotment by which tenancies were allocated annually among the Hadendowa diwabs into collective shares. The objectives of that policy were to encourage more Hadendowa to take an active part in agriculture, hoping for their eventual settlement. That policy in itself has produced negative effects on the plans for the settlement of the pastoral population. First, no Hadendowa tenant is associated with a particular plot as the location of each tenancy changes from one year to another depending on the flood situation and irrigation works. Second, there is no permanent individual right in land and the majority of tenants have no chance to reside in one area or cultivate constantly in the scheme.
tenancies circulate among the members of each diwāb from one year to another and thus the tenants come occasionally to the Gash for cultivation while leaving their families behind in the hills. Furthermore, the scheme has no modern system of agricultural administration as it is run mainly through the tribal sheikhs and the presidents of the courts. This administrative arrangement has increased the rate of absenteeism. Also the flow of large numbers of West Africans and riverains provides the Hadendowa with a ready supply of labour. Thus most of them are absent registered tenants, leaving their shares to be cultivated by these immigrants on the basis of crop-sharing. Gradually, the Hadendowa have found themselves economically dependent on the shopkeepers and in consequence they concede their tenancies to them.

The system of land allocation has other repercussions on the success of the scheme. The system does not take into consideration the process of segmentation which is inherent in the tribal structure. Most of the diwābs split as a result of internal disputes or natural population growth. This has led to the fragmentation of the original collective tenancies, and the increase in population creates pressure on land. Today, the scheme can no longer support all the members of the Hadendowa tribe who claim territorial rights in the Delta. Therefore it becomes difficult to reconcile the two objectives, namely allotting land on a tribal basis, and maintaining tenancies large enough to produce economic incentives for settlement.

However the peculiarity of the Gash Scheme, its dependence on flush irrigation from unpredictable flood, does not make it a suitable project for sedentarization. Permanent irrigation from such a river would require extensive capital, and even then could not be ensured as the river changes its course frequently. Experience has shown that any attempt to control waters by a dam will endanger the existing regime. The scheme is based on the natural flow of the river which more often than not fails
to irrigate all the available agricultural land. These natural conditions have been an important contributory factor in the failure of the scheme to settle a large population such as the Hadendowa.
APPENDIX I

THE GASH DELTA LANDS PROCLAMATION 1918

Whereas the Lands situated within the Delta of the River Gash in Kassala Province and from time to time watered by the flood of the river are the property of the Sudan Government:

And whereas certain natives have been permitted to cultivate the said lands when irrigated by flood and areas have been allotted for this purpose to various sub-tribes and families upon certain conditions:

And whereas the areas so allotted which are known locally as "Shaiyotes" have been registered in the names of certain individuals on behalf of such sub-tribes and families:

And whereas it is expedient to declare the conditions upon which the said "Shaiyotes" have been allotted and registered as aforesaid:

Now therefore I Major General Sir Lea Oliver Fitz Maurice Stack K.B.E., C.M.G., Acting Governor General of the Sudan hereby proclaim and order as follows:—

1. The whole of the land situated in the Delta of the River Gash is Government Land and Government reserves its full rights of ownership of and in the said Land and the flow of the River throughout the same.

2. The persons in whose names "Shaiyotes" are registered in the Register thereof kept in the office of Kassala District (hereinafter referred to as "the registered holders") hold the Land comprised in such "Shaiyotes" in a fiduciary capacity upon the following terms and conditions which were laid down when the allotment and registration of the said "Shaiyotes" took place and neither they nor the persons on whose behalf they are registered as holders have any further or other rights therein.

(a) The land comprised in a "Shaiyote" may be cultivated annually by flood irrigation during the pleasure of the Government by the sub-tribe or
family or other persons on whose behalf it is registered.

(b) The registered holder shall each year allot the Land included in the "Shaiyote" equitably amongst the sub-tribe or family or other persons on whose behalf it is registered and any surplus Land shall be allotted to any other members of their tribe who may be available to cultivate it. Any Land remaining unallotted may be allotted by the Governor of Kassala Province in manner provided by Section 3(d) of this proclamation.

(c) The registered holder shall be responsible for the clearing and keeping clear of the water channel commanding the "Shaiyote" in every year and for the proper distribution of the flood water over the Land included in the "Shaiyote".

(d) The registered holder shall be responsible for the collection and payment to Government of the Ushur Tax from the persons cultivating in the "Shaiyote".

(e) The registered holder is not entitled to take rent or any other payment or consideration from the cultivators in respect of the Land allotted them or the crops grown thereon, but in return for his services he and his immediate family shall be entitled to cultivate not more than one third of the Land included in the "Shaiyotes".

(f) If the registered holder shall fail satisfactorily to perform or observe any of the above conditions his name will be struck off the register and another person will be substituted as registered holder of the "Shaiyote".

3. For the better definition of the rights of cultivators of "Shaiyotes" the following further conditions are now published:--

(a) The Government may at any time revoke the allotment of any "Shaiyote" and will give six calendar months notice to the registered holder of their intention so to do upon the expiration of which the rights of all persons to cultivate the "Shaiyote" shall forthwith cease.

(b) The Government may at any time impose the payment of an annual
ground rent in respect of any "Shaiyote" and in such case will give six calender months notice to the registered holder thereof whereupon such ground rent shall be payable to Government by the persons on whose behalf the "Shaiyote" is registered on a date to be named in such notice. The registered holder shall be responsible for the collection and payment to Government of the said ground rent.

(c) On the revocation of the allotment of a "Shaiyote" neither the registered holder nor the persons on whose behalf it is registered shall have any claim against the Government for compensation.

(d) Land not included in an existing "Shaiyote" or which though formerly included in a "Shaiyote" has not been irrigated for a number of years, which may be watered by flood in any year shall not be cultivated without the sanction of the Governor of Kassala Province who shall allot such land in his absolute discretion to such persons as he may think fit and the registered holder or cultivators of an adjoining or adjacent "Shaiyote" shall not have any priority of claim to cultivate the same.

4. The Government does not contemplate the revocation of the existing allotments of "Shaiyotes" in the Gash Delta unless and until a general scheme of irrigation for the Gash Delta is undertaken in which case provision will be made when such scheme is carried into effect for the annual allotment upon suitable terms to the persons then cultivating "Shaiyotes" of areas reasonably sufficient for cultivation.

5. Neither the registered holder nor any cultivator of a "Shaiyote" may make or do any work or thing which would in any way impede or interfere with the free flow of the Gash flood in its main channels and the khors leading therefrom or with the irrigation works which regulate and distribute the flow of the flood.

Any breach of this condition may be punished by cancellation of the allotment to the individual cultivator or cultivators at fault or by the
imposition of a fine not exceeding £5 or both.

Dated the twelfth day of Sept. 1918.

sd. LEE STACK
ACTING GOVERNOR GENERAL
APPENDIX II

The Concession Agreement Between the Sudan Government and
the Kassala Cotton Company, 27th February, 1923

"The Sudan Railways" shall operate the Line when constructed by the Company
the nett revenue on such operation to be ascertained by deducting as working
expenses from the gross revenue a percentage of such revenue which shall be
in any year the same percentage as is applicable to the Sudan Railway
system as a whole including the Kassala Railway and any other extensions of
the said system (but so that the percentage of working expenses to gross
receipts shall in no case be taken to exceed seventy per cent) and that
the nett revenue so ascertained as aforesaid shall be paid over annually
by the Sudan Railways to the Railway Company and also that after completion
of the line the date of which is to be taken for this purpose as the
Thirty-first of December one thousand nine hundred and twenty-five the
Sudan Railway shall pay to the Railway Company halfyearly by way of loan
without interest such sum (hereinafter referred to as "the Railway Deficit")
as when added to the nett revenue to be paid as aforesaid may be found
necessary to enable the Railway Company to pay and discharge from time to
time as required:—

(A) Up to the Thirty-first of December one thousand nine hundred and
thirty-two the whole of the interest on the said First Mortgage Debenture
Stock and all the management and other expenses of the Company including
income tax (if any) corporation Profits Tax and any other
taxes.

(B) After the Thirty-first of December one thousand nine hundred and
thirty-two the whole of such interest and expenses and taxes and also the
amount of any sinking Fund which the Company may be under obligation to
pay for the purpose of redeeming the said First Mortgage Stock.

NOW IT IS HEREBY AGREED AS FOLLOWS:—

The Government hereby grants to the Company the right to the use and
occupation of an area of territory being so much in extent of the Gash Delta as can be brought within the operation of a scheme of irrigation by means of the control of the Gash Flood and its tributaries for the term of forty years from the First of July One thousand nine hundred and twenty-four for the cultivation of crops and the development of the irrigation with liberty to the Company to enter upon the said area at such earlier date as the Company may find advisable for the purpose of carrying out preparatory work for the cultivating season One thousand nine hundred and twenty-four and One thousand nine hundred and twenty-five.

2. WITHIN two years from the first day of July One thousand nine hundred and twenty-four the boundaries of the area which may reasonably be calculated to be within the scope of the operation of the said scheme shall be ascertained and agreed to between the Government and the Company and embodied in an agreement supplemental hereto and after the execution of such agreement this agreement and the right granted under clause 1 hereof shall be deemed to be restricted to the area comprised in such supplemental agreement PROVIDED that if it shall subsequently appear that land outside such restricted area can be brought within the scheme or that land inside such restricted area cannot be brought within the scheme the boundaries thereof shall by further agreement be varied accordingly. The area brought within the scheme is hereinafter referred to as "the concession area".

3. The Government will at its own expense expropriate or otherwise make provision from time to time for such private cultivating and grazing rights as may be found to exist on the concession area or as regards grazing shall make suitable arrangements in agreement with the Company for the provision of alternative grazing areas. PROVIDED that natives' rights of watering animals at the wells situated within the concession area must always be observed by the Company and suitable provision made accordingly in agreement with the Government.

4. The Company shall subject as hereinafter mentioned design and
execute all such irrigation works in the concession area as are necessary for its agricultural development as hereinafter described and shall use its best endeavours to develop the whole of the concession area at such rate of progress as may prove reasonably and economically possible having regard to the water supply available the number of cultivators available the period required for studying the irrigation problem and all the local circumstances which affect the rate of development. In particular the Company shall (A) provide and maintain all such irrigation works and such surface drainage and roads as may be necessary together with the necessary bridges (B) provide for the clearing of all land to be brought under cultivation pursuant to this Agreement which requires clearing so as to bring it into a suitable condition for irrigation and cultivation and (C) provide and maintain such storehouses, dwelling houses, offices and other buildings, heavy farm implements machinery stores and supplies as are required for carrying out the obligations of the Company hereunder.

5. The Company shall be entitled to call upon a tenant to carry out as a condition of his obtaining a tenancy the construction of such small feeder channels as are necessary for the irrigation of the plot let to him and also to call upon him in connection with the clearing and maintaining in efficient working order of such feeder channels as immediately serve any block of land of which his plot is a part to do such work as in the opinion of the Government and the Company shall be reasonable PROVIDED ALWAYS that this obligation on the part of the tenant is confined to the labour of himself and those usually associated with him in the cultivation of his holding and does not entitle the Company to debit the tenant with any part of the cost of constructing or maintaining any other works.

6. The Company shall at their own cost and as their part of the joint undertaking have the general management and supervision of the letting of the land and of the cultivation by the tenants and of the collecting storing and marketing of the crops and in particular:
(A) Shall let the land to which this Agreement applies on tenancies for one year or less under a form of agreement to be approved by the Government provided that preference shall be given to local cultivators to take up on the usual tenancy terms so much of the area they are cultivating as they are capable of cultivating with the aid of their families and relations.

(B) Shall maintain an adequate and efficient staff to instruct the cultivators and supervise the cultivation.

(C) Shall make loans for seeds implements cattle labour and other agricultural operations to tenants who reasonably need the same to enable them to carry on their agricultural operations provided that the Company shall have a free discretion to make or refuse such advances to the tenants and as to the amounts thereof subject only to general regulations agreed between the Government and the Company which shall (inter alia) ensure that loans shall be advances against work done on the land and implements and stock actually supplied. Such loans shall be made at such interest as shall comply with such regulations and such as shall cover the expenses incidental to borrowing the money on the market and transferring it to the site and to provide a sinking fund to cover bad debts it being understood that the Company is not to make a profit on these transactions. The interest shall belong exclusively to the Company who shall not be required to account for the same in making up its accounts under clause 28 hereof or in the proceeds divisible under Clause 17 hereof.

7. The Company shall not unless authorised by the Government carry on the business of an agricultural Bank nor make agricultural loans except to the tenants of the lands managed by the Company under this Agreement.

8. FOR the purposes of this agreement the Company shall at all times have a responsible representative in the Sudan and such representative shall if the Company so desire be vested with an honorary official position under the Government.
9. The sum of one-halfpenny per pound on all lint cotton grown in the concession area shall be set aside and deducted with the marketing expenses and shall be applied as follows:-

(a) One-eighth of a penny per pound shall be paid to the Government which shall be allocated by them to create a railway contingency fund such fund to be applied according to the sole discretion of the Government.

(b) Three-eighths of a penny per pound shall be retained by the Company and allocated to a Special Reserve Fund to be applied as follows:-

1) The Special Reserve Fund shall in the first place be applicable to expenditure by the Company within the concession area for capital purposes only either for replacement of works destroyed by exceptional floods etc. as distinct from ordinary maintenance or for any special new works or plant additional to those to be provided by the Company out of the three hundred and fifty thousand pounds.

2) Subject to the above and in so far as the Special Reserve Fund is not required for such capital expenditure it shall be distributed as to one-third to the Company to be available as part of its ordinary profits and as to two-thirds to such schemes for the general benefit of the cultivating tenants as may be jointly approved by the Government and the Company.

(c) The Company will at all times keep the Government informed as to the position of the Special Reserve Fund and as to their proposals for utilising the tenants' share and on the making up of accounts in each year the representatives of the Company and the Government shall jointly revise the position of the fund and decide what if any part of it is to be distributed for the benefit of the tenants in accordance with the provisions of Sub-Clause B(2) of this Clause.

10. THE proceeds of all crops grown in the concession area after deduction of the marketing charges the special levy (if any) of sixteen one-hundredths of a penny thereby provided and the sum to be deducted under the last preceding Clause shall be divided between the Government, the Company
and the tenant as follows:—

(1) To the tenant fifty per cent thereof.

(2) The remaining fifty per cent thereof shall be divided between the Government and the Company as follows:— On all cotton produced in the concession area up to forty thousand kantars lint cotton—twenty per cent to the Government and thirty per cent to the Company. On the next twenty thousand kantars twenty-five per cent to the Government, and twenty-five per cent to the Company. On all additional cotton thirty per cent to the Government and twenty per cent to the Company.

(3) On all crops other than cotton twenty-five per cent to the Government and twenty-five per cent to the Company.

(11) THE Government's share of proceeds above provided for shall be taken to include land tax Ushur and water rate which shall not be levied in the concession area.

(12) IF the Government or the Company should at any time be of opinion that the tenants' share of the said proceeds should be increased or decreased the Government and the Company shall discuss the matter and attempt to come to some agreement but in the event of their failing to do so the matter shall be referred to His Britanic Majesty's Representative for Egypt whose decision as between the Government and the Company shall be final PROVIDED THAT any such decrease of the tenants' share shall be general to all tenants but an increase of the tenants' share may be granted under this Clause in the case of lands which are of inferior quality or which are unfavourably situated without being made generally. Any increase or decrease in the tenant's share shall subject to the following proviso be borne by or accrue to the Government and the Company in the same proportions as their original percentages that is to say after deducting the tenant's share of the proceeds the Company and the Government shall receive the same proportions of the balance as provided by Clause 17 Sub-Clause 2 hereof PROVIDED THAT any increase in the tenant's share shall in
the first place be provided by remitting his proportion of the special
levy provided by Clause 14 hereof.

13. THE Company shall consult the Government on all matters of primary
importance affecting their joint undertaking with reference to the interests
of the Government the Company and the tenants respectively but this
provision shall not be taken to apply to any matters which are not of
primary importance it being the express intention of the Government that
it will not hamper the Company or interfere with the smooth working and
efficiency of the Company's management. The Company shall consult with
the Government on the appointment of the Company's principal representative.
With regard to the minor officials of the Company who may be employed in
direct contact with natives of the Sudan in the event of any disturbance
or serious difficulties arising between such an official and the tenants
or natives the Government shall be entitled to make representations to the
Company and ultimately to insist on the removal of such official at least
to a post where he would not be in contact with the natives.

14. The Company shall submit to the said Financial Secretary annually
proper and adequate accounts showing the financial position between the
Government and the Company.

15. THE Company shall not assign its duties or rights under this
agreement save with the previous written consent of the Government but
such consent shall not be unreasonably or arbitrarily withheld from an
assignment by the Company of its said duties or rights to a new Company
incorporated with the object of taking them over provided that the
directorate or proposed directorate of such new Company shall comprise a
majority of the Directors of the Company and that the capitalisation of
such new Company shall be subject to the reasonable approval of the
Government.

16. THE Government shall have the right to terminate this agreement.

(A) In the event of any assignment contrary to the last preceding
clause.

(B) In the event of the winding up of the Company whether voluntarily or otherwise (except for the purpose of reconstruction or amalgamation).

(C) In the event of the non-payment by the Company for six months after the same shall become due of one-half of the Railway Deficit as provided by Clause 4(B) hereof or in keeping up the deposit as provided by Clause 4(C) hereof.

17. THE Company shall at all times pay due regard to native rights and interests within and adjacent to the concession area and to political considerations which may in the opinion of the Governor General affect the situation in all of which matters the decision of the Governor-General shall be final.

This agreement was conveyed to the public by the following personal message from the Governor-General dated 18.2.23.

I. For long years the Government has been devoting attention to developing the Eastern parts of the Sudan in the same manner as has been done in the Gezira and other parts. The war and its results have delayed the realisation of these intentions but now it has been possible to arrange a plan which should bring great benefits to the people of Kassala.

Until now the greatest part of the fertilising waters of the Gash has run to waste, while huge areas of fruitful land have remained uncultivated.

Until now the cultivation of cotton for which this land is specially suitable has been difficult for many reasons. The water which comes to each piece of land has not been regulated. Some has got too little, and on some the water has lain too long, and because of this it has been difficult to keep the land clean. So that much labour has been wasted.

Again it has been difficult to transport the cotton which has been grown so that the merchant who buys it has been unable to know how long it will take him to transport it to Port Sudan or Suakin for export. So the merchants because they have to run great risks have not been willing to pay
the full value of the cotton.

Again for each cultivator there has been no security of tenure.

II. To regulate the flow of the waters so that the good parts of the land shall receive just so much as is necessary and no more, and shall receive that regularly means spending much money. But no one has been willing to spend this money because in order to make this expenditure profitable it would be necessary to increase greatly the production of cotton, and until a railway is built to Kassala it would be impossible to export so great a quantity.

So two things are necessary. First - To improve the irrigation of the land, and secondly to build a railway.

The Government plan provides for both these things, and for these purposes £2,000,000 will be spent in the next few years. A part of this money has been guaranteed by the British Government, and a part will be provided by a new English Company called the Kassala Cotton Company. The building of the Railway will be done by the Government, and the development of the cotton growing will be done by the Kassala Cotton Company. But the Company will be working as the agent of the Government, and none of the land will be transferred to the Company. The land will all remain as it is now, Government Land.

III. The plan on which the land will be worked is as follows:-

Canals will be dug and land will be cleared so that a properly regulated supply of water will be put on to land which is clean. To those who wish to cultivate, and of whom the Government approves, allotments of land will be made, which land they will hold as tenants, and each cultivator will know that, so long as he cultivates his land properly, the Government will see that his tenancy is not disturbed.

New ginning factories will be built by the Company in the centre of the cotton growing area and all cotton grown on Government land will be ginned for cultivators by the Company. No profit will be made on the ginning but
only the actual cost of ginning will be deducted.

The cotton will be transported by the new railway and exported and sold by the Company for the benefit of the cultivator; no deductions will be made except the actual cost of marketing, so that the cultivator will obtain the best possible price for his cotton.

The seed will also be sold at good prices for the benefit of the cultivator and the value of this should be as great or greater than the cost of ginning.

This will mean that the cotton will realise much higher prices than under present conditions. For example if the new plan had been in force last year the value realised for cotton would have been higher by at least one third.

For every ten feddans of cotton cultivated the cultivator will be allowed to grow one feddan of durra free of all taxes, so that he may have enough durra for himself and his family to live upon.

All the main canals will be made at the expense of the Company.

IV. For all these services and to give a return on the £2,000,000 which will be spent a deduction will be made of one half of the proceeds of the cotton. The cultivator will thus receive one half of the full value for himself which is one tenth more than the tenants in the Gezira area receive.

If, by God's will, the plan succeeds, the Government feels confident that the results for the cultivators will be so much better that each man will earn more under the new plan than under the conditions now in force. Each individual will therefore be better off than before, while for Kassala as a whole its wealth will be increased many times over.

This will have many indirect advantages - Trade will be better and better prices will be obtained for cattle, sheep and other products so that all should share in the general increase in prosperity.

V. To complete the railway and to build a ginning factory and make
all the new irrigation works will take time.

The Government proposes to introduce the new plan by the following steps.

For next cotton season 1923-4 all existing cultivation will be continued under the same conditions as at present. But a new area of about 4,000 feddans of clean land will be irrigated and thus made available for cultivators on the terms of tenancy of the new scheme - that is to say one half to the cultivator and half to the Government and the Company. To those who are given rights to cultivate parts of this area, security of tenure will be guaranteed for so long as they cultivate properly, and the Government will guarantee to buy their cotton grown on this area in the next season at a price considerably higher than the price which will be paid for the cotton grown on other areas.

For the season following next after that (1924-5) the railway should be completed to carry the cotton and the new scheme will come into force for all cotton grown on land irrigated by the Gash and the Company will undertake on behalf of the Government the management of all these areas and the sale of all the cotton at the best possible price.

VI. Although the Government have introduced this plan in the full belief that each cultivating tenant will be benefitted thereby, they recognise that certain people have special rights for which provision must be made.

1st. Registered tenants of "Shaiyotes" actually under cultivation in the present season will receive some compensation in place of what they now receive from the cultivators working on their land.

2nd. Registered tenants of Shaiyotes which are not now under cultivation will be given preferential allotment of new lands irrigated by the Company provided that application is made at the appointed time.

3rd. All members of tribes which in the past have exercised cultivating rights in the area will also be given preferential allotment of
new lands irrigated by the Company provided that application is made at the appointed time.

The people will be given as before the right to water cattle at wells in suitable places.

As regards pasturage, the Government recognises its importance and will watch over the interests of those who have been accustomed to graze their animals in the areas affected.

Provision will also be made that the forests are not so destroyed as to stop the supply of timber for building and fuel.

VII. These are the intentions of the Government which will be carried out if God wills.

In this and all other ways the Government intends to protect the interests of the people of Kassala for whose benefit the whole plan has been introduced.

In conclusion, I tell you that I myself am convinced of the benefit of these arrangements to your country provided that you yourselves co-operate in the work wholeheartedly.

The Government has done all that is possible to make this project a success, and I have no doubt that you will do all in your power to assist it in your own interest.

For the rest we are in the hands of God whose blessing I pray may descend on the efforts now being made for the further progress of your country.

Khartoum, 18.2.1923.  

sd. Lee Stack  
GOVERNOR-GENERAL
APPENDIX III

SELECTION FROM THE MOST CURRENT HADENDOWA PROVERBS

1. tiyayen baŋk m'arid
   sheep is a cooked food.

   This indicates that sheep are an easy source of income, and that who
   owns them would not be in financial difficulties as it is easy to
   sell them at any time when cash is needed. Moreover, the Hadendowa
   are very reluctant to sell any of their cows and camels.

2. uu a goyaa eed'ee itfayiik
   however weak the cow is, it should bear its horns.

   This means that however weak and poor a person is, he should
   carry out his responsibilities towards his family and kinsmen. He
   must support his relatives under any circumstance.

3. yaategaab
   he is just a goat-herder.

   It is applied to a person who is of little or no use to his
   family. It implies also the importance of cattle and camels in the
   Hadendowa social life.

4. taakam eedia haayųy eenhob
   until the camels have horns!

   Indicating simply impossibility.

5. argin sook dhok haraadi
   a ram was slaughtered on your naming day.

   The Hadendowa custom being that on the naming day of a child,
   usually the seventh day after delivery, they should make an offering.
   They think that a he-goat is the most clever among domestic animals,
   and it is therefore a good omen to slaughter it on the boy's naming-day
assuming that the boy will be clever and successful in his future life. If however, a boy is doomed to be stupid and a failure later in life he may be reproached by the above proverb, as the Hadendowa think that the ram is the most stupid among animals.

6. yiweet thayeek tori aribt eetni
   a thirsty animal comes by itself to the well.
   Meaning that who is in need for something should look for it; more particularly in case of revenge. This proverb is often said as a caution against one's enemies who may take him by surprise. The simile being one of a thirsty animal in search of water.

7. titikad tee Jawai
   I am from my wife's kinship group.
   This proverb explains the change in man's life after marriage. It indicates the identification of a man with his wife's people and the loosing of his ties with his own family, particularly if he married outside his agnatic group.

8. thamaayi biikaayi Naafi oor Mahmudit
   my son-in-law is not like Naafi b-Mahmoud.
   This saying explains the importance of the son-in-law. It is based originally on a story in the Hadendowa history. It is said that one day, a man called Naafi, was visited by a group of men who informed him that his father-in-law had killed another man. Naafi said that he himself was the killer and not his father-in-law, and should therefore be taken instead of his father-in-law. This indicates how a man is greatly considered by his son-in-law. The above proverb is applied when a man finds no respect from his son-in-law, then he will say that my son-in-law is not like Naafi.
9. *ida' bigwenhok*

A coffee pot must not be drunk by five persons at one time.

This saying is indicative of one of the Hadendowa well-established customs with regard to drinking coffee. It should not under any circumstances be drunk by more than four people at one time. When the saying is applied to a person, it means that his place and status is well considered as in the manner in which coffee is regarded.

10. *oodrar balawiibi*

Dinner is master.

Two things are to be understood by this proverb: (a) by feeding people out of generosity one can enslave them; (b) it also indicates the importance of dinner to the Hadendowa man, for he must return home at sunset to have his dinner.

11. *mhayenan tena terou titakati ba'yah aina: merukwaiwa, tiawowa, taragu*

Do not consult women except on the following situations: fear, thirst and hunger.

This statement underlies the importance of consultation with women before movement, as they are responsible for pulling down birish-houses and rebuilding them.

12. *oot oor rabalagab*

A daughter's son is a bull.

This is because a boy usually spends his childhood in his mother's father's residential unit. But later he will move with his father into a new residential unit. So his mother's father does not get benefit of his work. That is why he is like a bull. As the bull has no milk and it is not made use of in the household; and men bring up their daughters' sons, but the benefits of these sons go to their fathers.
13. idrokok tiritiok

when a basin round your well is broken, then it is better to let the water go back into the well, because you can get it back at any time.

This proverb indicates that it is better to marry from one's agnates; because the bridewealth and gifts spent on such marriage are not taken outside the agnatic group. These payments are not lost, but they are reserved for the husband who can make use of them as long as they remain circulating within the diwāb.

14. whindi balamaikik igadamyudho

when a tree gets dry, then it always falls on its roots.

This indicates that the agnatic group is the main resource of help to depend upon. The individual always seeks help from his patrilineal group, which is compared here with the roots of the tree.

15. ootam timbuuy haay'ka sallamamya

no matter how hot is the porridge, it has to be eaten.

This means that no matter how one is powerful and proud of himself, there will come a day when someone will triumph over him. It can also mean that one should resist one's enemies and defend oneself however unfavourable the circumstances. The necessity for resistance is compared with the importance of porridge for the Hadendowa as a staple diet.

16. ootam tolam iwgah

he cannot find milk for porridge.

This is said when one fails to shoulder one's responsibilities, especially towards one's family, and when one is in desperate difficulty.
17. *whaalulük yawyaweeti*
   
you are like a mirage on the desert face.
   
   This indicates lack of stability or hesitance. "A man of all occasions".

18. *tovin tigan.isUser assiyaan*
   
   the palms of the hands can not seal off the light of the sun.
   
   This is usually applied for something which is very obvious and cannot be denied. The proverb is referred to in councils of arbitration indicating that an injury must be compensated reasonably by a payment which must be equivalent to the damage.

19. *oyaaY t?ajar mheed Salad*
   
apology is a compensation.
   
   This means that the injured party will accept the apology of their offenders and consider it as a compensation. Therefore apology is an important factor in the settlement of disputes and restoration of peace among the Hadendowa. Once a person apologises and recognizes his fault, then he will be forgiven.

20. *ognuf tanwiyeek tilili miloteen*
   
   when the nose is twisted, the tears will fall down from the eye.
   
   This indicates the importance of kinship group in offence and defence. When a person is injured, all his kinsmen are injured and they will be affected by his hurt.

21. *isuuläyi tisabiiki wharkaayda hagaagamiini*
   
   if you allow another one to hold your arm, then he will find a chance to hold your shoulder and throw you on the ground.
   
   This indicates that a person must always be cautious, and take care of himself and his property, or otherwise he will be an easy victim to his enemies. Moreover, the proverb explains the nature of
Hadendowa life which is characterised by caution and suspicion.

22. whabin wankwanaavda hayyiis

support is useful to the person who gives it.

This implies the importance of reciprocal relation and mutual aid in the Hadendowa society. For example, members of a diwâb will assist each other in the payment of compensation, or stand together against outside attack, with the understanding by every member that this is a kind of insurance as he will receive help from his kinsmen in the future under similar conditions.

23. giradeeda bakaayna kit haay

any deed has a cause.

This is said when there is an unexpected stranger around the farig. There is a reason for the coming of this stranger, that he may come to steal some animals or to look for their women. That is why the Hadendowa are suspicious of strangers.

24. o aayt gidâ gwiihad sakistini

a pair of shoes from cow-hide last long.

It is applied to explain the importance of reciprocity among kinsmen. It also indicates that a person must depend on a wise wealthy person so as to get his support in the future.

25. tidibtini haaj anu kayakta

anything which falls on the ground will get dusty.

This proverb is referred to in the settlement of disputes. The wrongdoer cannot get rid of his fault unless he pays compensation; or apologises. If he does not do that, then the consequences of his fault will follow him, e.g., the injured will take revenge.
26. bit'iti andi kdiaramhok

unless you step in dung, it does not stick on your foot.

The saying is a warning against troubles and trespassing on other people's property. And it is well known that a Hadendowi man would not offend another without apparent reason. Also it implies that a person cannot be charged with an offence which he does not commit.
APPENDIX IV

SOME HADENDOWA POETRY ABOUT CATTLE

1. aja abreen halawat
   asre dor indiwai saatib.

   This means that cows produce sweets for their owners, referring here to the importance of cows as a source of livelihood for the household. The cows provide the Hadendowa with milk which is central in their staple diet. Moreover, cows are closely associated with women; and they come to the farig, waiting around the birish-house, to be milked.

2. tiraigin'e sow'mine
   whagwil iowatat eyab
   masmut biidalib
   jaadra som'n daure lolt
   karoraat olif heif'in
   ekulal bidalaabai'n
   talama'baba mallilei sei'naine

   The Hadendowa poetry goes: young men who have cattle at their disposal have a good chance to marry easily from important families. Such young men are always praised by girls who admire their large herds of cattle. So ownership of cows supports a young man to get a wife easily, as he is famous and known in his farig, where every girl likes to marry him. Cows are important to women because the wife of a husband who owns a large number of cows, will always get enough milk and butter for food. Further, women always like to have different kinds of scents, coloured clothes, jewellery, plenty of sugar and coffee. Then men who own large herds of cattle can sell calves and get money to fulfill all the temptations of their wives.
The cattle are associated with women and birish-house from the first day of wedding. Marriage is traditionally accomplished by paying a bridewealth of two cows which are accepted by the bride's family with great pleasure. In addition, rich bridegrooms who have a lot of cows can give large feasts on their weddings. It is an occasion to show off their richness and generosity to kinsmen and friends who gather to have food; play and sing. Also the bride can distribute presents to her mates.

Ownership of cattle is a sign of high status and prestige in the Hadendowa society. Thus, the poet says that the cattle owners are famous among their kinsmen and they are also known to other people. They stand in good repute because of their generosity as they can make use of their cows' by-products to provide guests with food, and help poor kinsmen. So, such men are praised for their generosity as there is continuous flow of food coming out of their houses to be distributed to guests and kinsmen. Furthermore, daughters of cattle owners usually get married at an early age, and this is because husbands are attracted by this generosity. There is always a number of milch cows near the household so as to supply guests with sufficient food. Hence the wife
is always ready to receive guests as far as she has enough milk.

5.

Jega sadraap Jaramni
ooro 'andimal kakc jeiai
gaanuut baSkulai
adroob wunkalou ekati
jau arst hoi laweinein
oorwa darbatit tankuli
oms samhei kirumaab.

The wealth of cattle owners' daughters is constant and continuous. Thus future husbands and children can depend on these cattle to get their livelihood and cash for household expenses. However the wife will never be short of food as she can return to her father at any time to get help in the form of cattle. Thus the household has a ready supply of food in the future. Such a woman will bring up healthy sons because they are living on cow's milk. More important, they are trained from childhood to look after cattle in pasture, and they are acquainted with herding techniques. Hence they are prepared to carry their role as active members in the kinship group.

6.

ogbil oumib nanei
arrtande toyo hedogneit
ejeda sifaat titikat
ebajar kabalamia adaroot
labte hamoyet tikati
wadar hadal odrif
wahadal ik woraminib
wahwitiyai nabosib
thoi wannit nawaadrib
ameprraat aftine lib
dhai fofameid.
The poetry here explains the association of cattle with women and how ownership of cattle is prestigious for women. The poet starts by saying that beautiful girls always sleep with cows. He is praising rich men's daughters who keep a large number of cows around their birish-houses. Such girls are prepared from childhood to be successful wives. They get married quickly because young men are attracted by their coloured clothes, jewellery and well-built bodies. These girls have enough food, and money to decorate their birish-houses with coloured woollen rugs and birish-mats. The poet considers that ownership of cattle is a sign of marriage; where there are cows there will be married women.
**APPENDIX V**

**THE OMODIYAS OF THE HADENDOWA NAZIRATE**

### A. Northern Khat:

<table>
<thead>
<tr>
<th>Omodiya</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Samara'r</td>
<td>12,184</td>
</tr>
<tr>
<td>2. Militkinaab/Hamdab</td>
<td>1,141</td>
</tr>
<tr>
<td>3. Shebodinab</td>
<td>4,939</td>
</tr>
<tr>
<td>4. Gurhabab</td>
<td>11,397</td>
</tr>
<tr>
<td>5. Bayudaab</td>
<td>2,931</td>
</tr>
<tr>
<td>6. Hamdab</td>
<td>12,535</td>
</tr>
<tr>
<td>7. Hakulab</td>
<td>9,815</td>
</tr>
<tr>
<td>8. Garei'b</td>
<td>6,560</td>
</tr>
<tr>
<td>9. Tolinab/Kinab</td>
<td>6,264</td>
</tr>
<tr>
<td>10. Bushab/Artiega</td>
<td>5,345</td>
</tr>
<tr>
<td>11. Bushariab/Rabamak</td>
<td>7,150</td>
</tr>
<tr>
<td>12. Emirab</td>
<td>6,595</td>
</tr>
<tr>
<td>13. <strong>Sinkat Town</strong> (different ethnic groups)</td>
<td>7,500</td>
</tr>
<tr>
<td>14. Hikotiab</td>
<td>5,345</td>
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### B. Frontiers Khat:

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wailaliab</td>
<td>12,733</td>
</tr>
<tr>
<td>2. Gemilab/Tolai</td>
<td>3,855</td>
</tr>
<tr>
<td>3. Bushariab</td>
<td>15,708</td>
</tr>
<tr>
<td>4. Gareib</td>
<td>2,450</td>
</tr>
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<td>5. Samarendiwbab</td>
<td>3,318</td>
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<tr>
<td>6. <strong>Ashraf</strong></td>
<td>2,274</td>
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### C. Odi Khat:

<table>
<thead>
<tr>
<th>Omodiya</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Samarendiwab</td>
<td>4,461</td>
</tr>
<tr>
<td>2. Wailaliab/Odi</td>
<td>4,269</td>
</tr>
<tr>
<td>3. Gemilab/Warribaab</td>
<td>21,135</td>
</tr>
<tr>
<td>4. Berinab</td>
<td>4,566</td>
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### D. Gash Khat:

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tirik</td>
<td>28,373</td>
</tr>
<tr>
<td>2. Sharaab</td>
<td>17,301</td>
</tr>
<tr>
<td>3. Bushariab</td>
<td>7,301</td>
</tr>
<tr>
<td>4. Hakulab/Dilai</td>
<td>6,299</td>
</tr>
<tr>
<td>5. Samara'r</td>
<td>2,739</td>
</tr>
<tr>
<td>6. Kimeilab</td>
<td>11,275</td>
</tr>
<tr>
<td>7. Hakulab/Shingrai</td>
<td>278</td>
</tr>
<tr>
<td>8. Segolab</td>
<td>312</td>
</tr>
<tr>
<td>9. Tolinab</td>
<td>543</td>
</tr>
<tr>
<td>10. Milhitkinab</td>
<td>2,360</td>
</tr>
<tr>
<td>11. Gareb</td>
<td>3,280</td>
</tr>
<tr>
<td>12. Bushariab</td>
<td>4,752</td>
</tr>
<tr>
<td>13. Ashraf</td>
<td>351</td>
</tr>
<tr>
<td>14. Hakulab</td>
<td>4,975</td>
</tr>
<tr>
<td>15. Nurab/A'mara'r</td>
<td>1,328</td>
</tr>
<tr>
<td>16. Mallo</td>
<td>4,066</td>
</tr>
<tr>
<td>17. Berno</td>
<td>5,233</td>
</tr>
<tr>
<td>18. Bergo</td>
<td>7,048</td>
</tr>
<tr>
<td>19. Fellata</td>
<td>2,260</td>
</tr>
<tr>
<td>20. Hausa</td>
<td>5,788</td>
</tr>
<tr>
<td>21. Arteiga</td>
<td>455</td>
</tr>
<tr>
<td>22. Wagur Town (different ethnic groups)</td>
<td>8,000</td>
</tr>
<tr>
<td>23. Aroma Town (different ethnic groups)</td>
<td>7,213</td>
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E. Atbara Khat:

<table>
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<tr>
<th>Omodiya</th>
<th>Population</th>
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<tbody>
<tr>
<td>1. Shiaab</td>
<td>7,846</td>
</tr>
<tr>
<td>2. Gaidab</td>
<td>4,104</td>
</tr>
<tr>
<td>3. Kaolai</td>
<td>2,479</td>
</tr>
<tr>
<td>4. Hamad/Shiaab</td>
<td>891</td>
</tr>
</tbody>
</table>

*Note* The population of underlined omodiyas is non-Hadendowa; but territorially they are within Hadendowa Nazirate, and their Omadas are under the authority of the Hadendowa Khats Sheikhs.
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<tr>
<th>Author</th>
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3. A Report on the Kassala Cotton Company and the Gash, by the assistant Civil Secretary, 1927.


5. The Annual Reports by the Gash Board and the Gash Delta Agricultural Corporation, Aroma.

6. Kassala Province Files at Aroma, Kassala and Sinkat.