

ANNEXES

ANNEX 1
Village Profiles

I. PROJECT AREA A

Village Names:

1. CABDI CALI
2. MAANYO FAARAX
3. GORGAAL (incl. CARMOOY)
4. MALAYLEY
5. DOON BURAALE
6. BOMBAASA KULUB
7. AFGOOYE YARE
8. BANAANEY

Statistical data of the village: CABDI CALI

age of the settlement: approx. 100 years

Demography:

# of families	female	male	under 15	above 15
900 (approx.)	--	--	--	--

Total population: 5000 (approx.)

average family size: 5.55

average family size of capable of employment¹⁾:

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
46	44	6	2	1	0.5	0.5

registred farmplots: 3.9 % registred farmland: 31.8 %

Local mills

- for grinding maize : 1
- for sesame oil : 3

Local vehicles

- Tractor : 2 (own by absentees)
- Lorry : 0
- Pick Up : 0 (not operating)

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 0 (owned by community)

Points of watersupply

- well : 1 (poor quality)
- river : hardly used
- canal : main water source

Healthworker : 2

Coranic school : 12

Public school : 11 teachers, 515 pupils
(detailed data not available)

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: MAANYO FAARAX

age of the settlement: 55 years (founded 1934)

Demography:

# of families	female	male	under 15	above 15
350 (approx.)	1866	1844	1330	2380

Total population: 3710

average family size: 10

average family size of capable of employment¹⁾: 6.8

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
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not available

registered farmplots: -- registered farmland: --

Local mills

- for grinding maize : 2
- for sesame oil : 0

Local vehicles

- Tractor : 1
- Lorry : 0
- Pick Up : 1

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 1 (owned by community)

Points of watersupply

- well : 4 (poor quality)
- river : main water source
- canal : important water source

Healthworker : 2

Coranic school : 4

Public school : 8 teachers, 1 director

class	boys	girls
1.	70	14
2.	25	5
3.	15	4
4.	15	2
5.	15	2
6.	12	1
7.	18	2
8.	6	1
Total	176	31 = 207 pupils

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: GORGAAL (incl. CARMOOY)

age of the settlement: Gorgaal approx. 65 years
Carmooy 51 years (founded 1938)

Demography:

	# of families	female	male	under 15	above 15
GORGAAL:	200	814	608	706	716
CARMOOY:	122	476	405	579	302
Total:	322	1290	1013	1285	1018

Total population: Gorgaal 1422 ; Carmooy 881
average family size: Gorgaal 7.11 ; Carmooy 7.22
average family size of capable of employment¹⁾:
Gorgaal 3.58 ; Carmooy 2.47

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
38	54	3	2	1	1	1

(this figures show the distribution of the farm sizes with the administration borders of Gorgaal including the village of Carmooy)

registred farmplots: 4.2 %

registred farmland: 63.4 %

Local mills

- for grinding maize : 5
- for sesame oil : 1

Local vehicles

- Tractor : 0
- Lorry : 0
- Pick Up : 0

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 0 (owned by community)

Points of watersupply

- well : 4 (poor quality)
- river : important water source (if mixed with water from wells)
- canal : temporary water source

Healthworker : 2 Coranic school : 5

Public school : 10 teachers, 400 pupils
(detailed figures not available)

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: DOON BURAALE (incl. CAANOOLE)

age of the settlement: 53 years (founded 1936)

Demography:

# of families	female	male	under 15	above 15
450 (approx.)	979	911	1068	822

Total population: 1890

average family size: 4.2

average family size of capable of employment¹⁾: 1.82

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
67	29	4	0	0	0.2	0

(the figure of 0.2 represents one single farm only)

registred farmplots: 0.3 %

registred farmland : 14.3 %

Local mills

- for grinding maize : 4
- for sesame oil : 2

Local vehicles

- Tractor : 0
- Lorry : 0
- Pick Up : 0

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 0 (owned by community)

Points of watersupply

- well : 2 (no drinking quality)
- river : main water source
- canal : temporary water source

Healthworker : 2

Coranic school : 5

Public school : 5 teachers, 300 pupils
(detailed figures not available)

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: MALAYLEY

age of the settlement: 51 years (founded 1939)

Demography:

# of families	female	male	under 15	above 15
185	--	--	--	--

Total population: 1400 (approx.)

average family size: 7.5

average family size of capable of employment¹⁾:

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
37	52	8.5	2	0.5	0	0

registred farmplots: 3 %

registred farmland: 42 %

Local mills

- for grinding maize : 1
- for sesame oil : 0

Local vehicles

- Tractor : 0
- Lorry : 0
- Pick Up : 0

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 0 (owned by community)

Points of watersupply

- well : 2 (no drinking quality)
- river : main water source
- canal : hardly used

Healthworker : 0

Coranic school : 5

Public school : 4 teachers, 1 director

class	boys	girls
1.	38	22
2.	30	10
3.	27	3
4.	22	1
5.	29	8
6.	21	1
7.	21	2
8.	7	0
Total	195	47 = 242_pupils

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: **BAMBAASO KULUB**

age of the settlement: 44 years (founded 1945)

Demography:

# of families	female	male	under 15	above 15
467	1513	1549	1457	1605

Total population: 3062

average family size: 6.55

average family size of capable of employment¹⁾: 3.43

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
66	28	2	2	0	2	0

registered farmplots: 2 %

registered farmland: 54.7

Local mills

- for grinding maize : 3
- for sesame oil : 1

Local vehicles

- Tractor : 2
- Lorry : 1
- Pick Up : 1

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 0 (owned by community)

Points of watersupply

- well : 3 (1 good and 2 poor quality; main water source)
- river : 2 (hardly used)
- canal : --

Healthworker : 3

Coranic school : 5

Public school : 5 teachers, 1 director

class	boys	girls
1.	26	24
2.	45	27
3.	30	3
4.	21	4
5.	30	10
6.	15	7
7.	22	14
8.	18	2
Total	191	107 = <u>298_pupils</u>

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: AFGOOYE YARE

age of the settlement: 20 years (founded 1969)

Demography:

# of families	female	male	under 15	above 15
250 (approx.)	640	1020	217	1443

Total population: 1660.

average family size: 6.64

average family size of capable of employment¹⁾: 5.77

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
36	30	11	5	11	5	1

registred farmplots: 11.2 %

registred farmland: 58 %

Local mills

- for grinding maize : 4
- for sesame oil : 0

Local vehicles

- Tractor : 2
- Lorry : 0
- Pick Up : 0

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private); 0 (owned by community)

Points of watersupply

- well : 3 (poor quality, soapy taste)
- river : main water source
- canal : --

Healthworker : 2

Coranic school : 5

Public school : 4 teachers, 1 director

class	boys	girls
1.	20	8
2.	34	4
3.	11	1
4.	9	0
5.	8	0
Total	82	13 = 95 pupils

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: BANAAANEY

age of the settlement: 18 years (founded 1972)

Demography:

# of families	female	male	under 15	above 15
547	1313	1002	1243	1072

Total population: 2315

average family size: 4.23

average family size of capable of employment¹⁾: 1.95

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha

not applicable

registred farmplots: -- registred farmland: --

Local mills

- for grinding maize : 1
- for sesame oil : 1

Local vehicles

- Tractor : 4
- Lorry : 1
- Pick Up : 0

Generator for electricity: 0

Workshop for vehicles: 1

Motorpumps for irrigation: 0 (private), 2 (owned by community)

Points of watersupply

- well : 3 (2 good and 1 poor quality)
- river : hardly used
- canal : temporarily used

Healthworker : 2

Coranic school : 4

Public school : not available

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

II. PROJECT AREA B

Village Names:

1. AW DHEEGLE
2. JAWHAR
3. DAARASALAAM
4. MUBAARAK

Statistical data of the village: AW DHEEGLE

age of the settlement: approx. 800 years

Demography:

# of families	female	male	under 15	above 15
1253	5521	4504	6278	3747

Total population: 10025

average family size: 8.00

average family size of capable of employment¹⁾: 2.99

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
2	52	19	12	11	3	1

registred farmplots: 15 %

registred farmland: 55.3 %

Local mills

- for grinding maize : 9

- for sesame oil : 3

Local vehicles

- Tractor : 21

- Lorry : 10

- Pick Up : 4

Generator for electricity: 1

Workshop for vehicles: 3

Motorpumps for irrigation: 10 (private), 2 (owned by community)

Points of watersupply

- well : 6 (2 poor quality, 4 no drinking quality)

- river : 5 (main water source)

- canal : 0

Healthworker : 5

Coranic school : 11

Public school : 15 teachers, 1 director

class	boys	girls
1.	105	26
2.	81	13
3.	72	9
4.	68	10
5.	46	6
6.	61	9
7.	58	6
8.	28	2

Total	519	81 = <u>600 pupils</u>

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered.

Statistical data of the village: JAWHAR

age of the settlement: approx. 675 years

Demography:

# of families	female	male	under 15	above 15
100 (approx.)	--	--	--	--

Total population: 700 (approx.)

average family size: 7

average family size of capable of employment¹⁾: --

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
0	92	6	2	0	0	0

registered farmplots: 5 %

registered farmland: 21.4 %

Local mills

- for grinding maize : 1
- for sesame oil : 0

Local vehicles

- Tractor : 0
- Lorry : 0
- Pick Up : 0

Generator for electricity: 0

Workshop for vehicles: 0

Motorpumps for irrigation: 0 (private), 0 (owned by community)

Points of watersupply

- well : 1 (no drinking quality)
- river : main water source
- canal : hardly used

Healthworker : 0

Coranic school : 2

Public school : not available

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: DAARASALAAM

age of the settlement: approx. 130 years

Demography:

# of families	female	male	under 15	above 15
274	686	746	683	749

Total population: 1432

average family size: 5.22

average family size of capable of employment¹⁾: 2.73

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
4	64	14	7	7	1	4

registred farmplots: 4.5 % registred farmland: 31.7 %

Local mills

- for grinding maize : 1
- for sesame oil : 1

Local vehicles

- Tractor : 5
- Lorry : 3
- Pick Up : 0

Generator for electricity: 2

Workshop for vehicles: 0

Motorpumps for irrigation: 19 (private), 2 (owned by community)

Points of watersupply

- well : 0
- river : main water source
- canal : temporarily used

Healthworker : 4

Coranic school : 5

Public school : 6 teachers, 1 director

class	boys	girls
1.	41	19
2.	10	1
3.	22	5
4.	29	1
5.	18	0
6.	7	7
7.	8	1
8.	15	6
Total	150	40 = <u>190 pupils</u>

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

Statistical data of the village: MUBAARAK

age of the settlement: 173 years (founded 1818)

Demography:

# of families	female	male	under 15	above 15
1404	4033	3566	3773	3826

Total population: 7599

average family size: 5.41

average family size of capable of employment¹⁾: 2.72

Distribution of farm sizes (%)²⁾:

under 1	1-3	3-6	6-10	10-30	30-100	over 100 ha
7	68	14	5	4	1	1

registred farmplots: 5 %

registred farmland: 55.2 %

Local mills

- for grinding maize : 4
- for sesame oil : 3

Local vehicles

- Tractor : 18
- Lorry : 3
- Pick Up : 0

Generator for electricity: 2

Workshop for vehicles: 1

Motorpumps for irrigation: 10 (private), 2 (owned by community)

Points of watersupply

- well : 4 (3 good quality, 1 poor quality)
- river : important water source
- canal : temporarily used

Healthworker : 2

Coranic school : 11

Public school : 7 teachers, 1 director

class	boys	girls
1.	33	6
2.	10	10
3.	32	8
4.	25	15
5.	14	0
6.	25	3
7.	12	0
8.	7	0

Total	158	42 = 200 pupils

1) Members of family above 15 years of age

2) Ownership of 2 and more farmplots has been considered

ANNEX 2
Case Studies

I. The Village of Banaaney

The Village of Banaaney

This village is an exception throughout the whole riverine area of the Lower Shabeelle region. It is a settlement founded by a religious leader, Sheikh Banaaney, in the year 1972. In cooperation with the present President of Somalia and the former leader of the Giddow Tribe, Sheikh Banaaney received 2525 ha of land in the traditional territory of this tribe. Even though the formal administrative regulations are respected, this village has a particular own internal structure, which is respected by the authorities.

1. Historical Overview

In the year 1960 Sheikh Banaaney founded Toosweyne, a religious cooperative in the area of Baydhabo, with three men and two women who followed his teaching. By 1970 this community had approximately 4000 members. Therefore they were forced to split up the group. In 1972 the community started to clear land in the area of the present village. During the founding period the new settlers were supported by their headquarters in Toosweyne, which provided them with food and equipment for 6 months. At this time the Somali government helped the settlers by clearing 150 ha of bush and providing the community with credits for further activities.

The new settlement was organized in the same way as the community (jama'a) of Toosweyne, according to the regulations announced by Sheikh Banaaney. Since many people sought his religious guidance, the new village grew considerably. Most of the people who joined him had no family and no means. But as he intended to feed his pupils through their own agricultural production, he organized this task along the religious guidelines given in the Quran. Newcomers are selected by an entrance committee. They are provided with accommodation, a wife (if not married) and they have to work according their abilities. Before becoming a full member of the community they have to pass a probation period of eight months and they are obliged neither to lie, to cheat or to steal nor are they supposed to talk to females outside the house or to disobey the orders of the headmen. If they violate these regulations the community can expel them from the village and keep their property. All full members have the right to ask for help from the community, if their individual production is insufficient to meet their needs.

2. Organization of the Community

Each settlement is organized in the same way according to the concept developed by Sheikh Banaaney. Moreover he ordered that every person who is to be entrusted with a specific responsibility should be trained in Toosweyne, in order to perform its task for the benefit of the community.

Each village is one cooperative. Its internal hierarchic organization is stratified in three levels:

- a) Board of headmen
- b) Leaders of the various branches of the cooperative
- c) The individual households

Besides this general stratification, dominated by the male members of the community, the women have an additional separate organization (d) with various tasks.

a) **Board of Headmen**

The board of headmen is a group of informal leaders who at the same time also constitute the formal village administration, according to the Somali laws for the national administration.

The board of headmen consists of seven members:

- a) chairman
- b) vice chairman
- c) board of governors

The chairman is elected by the headmen of the five pillars (see below) and has to be approved by the headquarters of the community in Toosweyne. He is responsible for the internal administration of the village and has to represent the community (e.g. welcome visitors, negotiate with the regional authorities, keeping contact to external agencies). As well he has to plan the future development of the settlement and to take care that the religious laws are not violated. For important decisions he has to consult the headquarters (e.g. credits, buying machinery, extending the agricultural land, canal digging, important innovations).

The vice chairman represents the chairman during his absence from the village.

The board of governors, who at the same time are the headmen of the five "pillars" of the cooperative, consists of five respected members of the community. They are usually appointed by the headquarters in Toosweyne and are not necessarily people from the village itself. Their major task is to control the internal affairs and to judge the efficiency of the administration and the work of the community.

This leading group has regular weekly meetings to discuss topical problems and to supervise all work within the community. Besides handling all administrative matters, one of their major tasks is to control those villagers who occupy responsible positions.

These leaders are commonly in office for a period of five years and have to give regular reports to the headquarters every six months. It is common practice to replace them if their work is not approved. But they can stay in power for a longer period if the community agrees.

b) Branches of the Cooperative

The cooperative has five branches which are regarded as the five "pillars" of the community. Their headmen form the board of governors. They take part in the decision-making process within the administration and are responsible for the efficient work of their respective branches.

These five "pillars" are responsible for:

- Economy. This branch manages all money matters and supervises the income from agriculture and livestock keeping.
- Transportation. This branch has to provide transportation facilities and to solve all problems concerning the machinery of the community (e.g. spare parts, fuel).
- Construction. It is concerned with all matters of construction.
- Business. This branch is responsible for adequate food supply of all village members and has to provide the community with those items (e.g. clothes etc.) which are regularly bought by the cooperative to be distributed among the villagers. Its activities are controlled by the economy group.
- Agriculture. This branch is regarded as the most important for the settlement since it is responsible for the entire agricultural production of the community. The branch consists of 12 subgroups, 10 are in charge of the work in the fields, 1 has to provide the tractor services and 1 controls all matters concerning irrigation. Each subgroup has a headman, who is assisted by an accountant and a controller.

All male villagers above 15 years have to take part in the work of at least one of these branches and each becomes a full member of his branch when he is 18 years old.

c) Households

After marriage each couple receives its own farm plot provided by the cooperative. The initial size of this family land usually does not exceed 1 to 2 ha, but it increases with every newborn child by 2 jibaal. To start their production the households receive support from the community as long as needed. It is common practice that this land is mostly worked on by the women and her children whereas the men predominantly work on the land of the cooperative.

d) Women's Organization

The female members of the village are organized in their own committee with one leading woman. This committee is in charge of all matters for which women are made responsible. The major tasks can be described as follows:

- all problems concerning land worked by female farmers;
- preparing accommodation and food for visitors;
- cleaning the village;
- preparations for weddings;
- helping pregnant women to complete their work and
- cooperate with women after childbirth.

3. Agricultural Production

The agricultural production is the primary income-generating activity of this community. Its forms of production cannot be compared with other villages.

3.1 Land Tenure

The entire area belonging to the settlement had been registered at the Ministry of Agriculture by its former administration. This registered area of 2525 ha consists of 1525 ha of bush land and 1000 ha of agricultural land, which again is subdivided in approximately 600 ha used by the cooperative and 400 ha worked on by individual households. The bush land is regarded as reserve for further agricultural extension, if the possibilities for irrigation improve. Furthermore it utilized for livestock keeping.

3.2 Farming System

Like the organization of the community, the farming system of Sheikh Banaaney varies considerably from the practices in the other villages of the riverine area. The agricultural production is based on two forms of land use with different patterns of organizing the work.

3.2.1 The Cooperative

Production within the cooperative is organized by the branch responsible for agriculture. Their cropping pattern is decided by the informal administration, the headmen of the agricultural branch and the headquarters in Toosweyne. The cooperative can usually only work on approximately 65 % of their 600 ha since the remaining 35 % frequently suffer from lack of water or from inundation. This area of production is subdivided among the 12 subgroups. The farm plots do not exceed 50 ha and are worked on by a maximum of 25 male village members. If the number of community members increases, the cooperative clears new areas and forms additional sub-groups.

Each sub-group has one headman who is responsible not only for production but also for the social well-being of the members. His

major tasks are: to organize the field work, to control its performance, to inform the local authorities and their controller about problems, to care for members in case of sickness, to give permission to the members to leave the village to see their own affairs, to pass requests for help (money or kind) on to the headmen, to transmit the wishes for marriage to the authorities. The headman of each sub-group is assisted by an accountant, responsible for all matters concerning money and a controller who supervises the efficiency of work within the sub-group.

a) Land Use

The single cooperative usually works on 50 ha of land. Their major crops are maize, sesame, groundnuts and water melon. The cropping pattern changes according to the season and is listed in the following table.

Table 37: Cropping Pattern on 50 ha (in ha)

Crop	gu'	dayr
Maize	35	5 (for seeds)
Sesame	5 - 10 *	35
Groundnut	10	5
Water melon	-	5

* grown in local dhesheeq areas for seeding purposes

Source: ZELF Team 1989

This cropping pattern is used by all sub-groups and approved by the respective headmen and the local authorities.

b) Labour

Within these groups all members have specific task. For each crop there is one person who is responsible for its production. Others organize the weeding or the maintenance of the irrigation system. The irrigation of the fields is managed by two groups of 12 people each whose task is to secure the water distribution in the fields. During periods of high labour requirement all sub-groups cooperate and the women of the community have to help in the fields of the cooperative (e.g. weeding, harvest). Frequently seasonal labourers from outside are employed, coming from the Afgooye Yare - Qoryooley reach and from the headquarters in Toosweyne.

During periods of activity in the fields of the cooperative the members work for 6 hours daily, from 7 a.m. until 11 a.m. and from 4 p.m. until 6 p.m. In periods of little labour requirement in the cooperative fields, the members work on their family farm or seek for labour opportunities outside the village for their own account. To do so they require the permission of the headman. The favourite area to earn additional cash are the nearby villages, therefore the agricultural practices used in the cooperative are spread in the region by these labourers.

c) Crop Production

The findings of the study show that the interviewees in this village, like those of the other villages, have little knowledge about crop rotation. However, farmers are aware of the problems of soil fertility since they usually do not grow the same crops on the same plot after one season. Like almost all farmers in both project areas, they consider access to water and good irrigation performance to be the most important factors for good agricultural production.

Table 38: Yield (kg/ha)

Crop	gu' 88	dayr 88/89
Maize	1730	2150
Sesame	n.a.	650
Groundnuts*	150	200
Water melons	n.a.	n.a.

* plain seeds without shells

Source: ZELF Team 1989

The data on Table 38 have to be used with caution since they are not based on measurement of the ZELF Team but on answers given by interviewees.

Each season the sub-groups compete for the highest yields of the various crops and for the best weeding of the fields.. The respective results have an impact on the groups as a whole. A group that fails will be abused openly and it is considered to be particularly shameful for the losers if this is done in front of women. Although there are no further sanctions the "losing" group is encouraged to improve, but the three leaders of the sub-group will be replaced if they fail three times.

The groups with the best results are encouraged with prizes. For the best yield 5 barrels of sesame oil are distributed among the members of a group. They can use their share privately or ask for an equivalent in money or kind. The second best group receives 2 barrels of sesame oil and the third best 1,5 barrels of sesame oil. In addition, the headman of a group can award a prize to the best worker of his sub-group (e.g. some sacks of maize).

d) Marketing and Storage

The marketing of the production of the cooperative land (basically maize, sesame and groundnuts) is managed by the branch responsible for the economy of the community. They prefer to sell the produce to the Agricultural Development Cooperation (ADC), since the quantities are considerable and the price paid by ADC is favourable to them. If the harvest was comparatively low they sell it to private traders, who frequently visit the village to negotiate about the price of the various products grown by the cooperative.

The work of the economic branch influences the crop production, as the results realized on the market affect the cropping pattern in terms of hectares to be used for the various crops in the next future. (The responsible leaders of this branch reported that the political conflicts in the northern territories of Somalia are made responsible for the drop in of the market prices for agricultural products, since these regions, which are presently not accessible, were supplied with large amounts of these products produced in the riverine areas ¹⁾).

Besides marketing the crops large quantities are brought to the headquarters of the religious community. The amounts of maize and sesame oil transferred vary according to the yields of the cooperative and the demands of the community in Toosweyne. The quantities transferred every year reach 30 to 70 tons of maize and approximately 1500 to 2000 litres of sesame oil.

The rest of the production from the cooperative land is centrally stored to secure the needs of the community (as reported) and to support individual households if their own production was insufficient. (Detailed data on storage could not be gathered because the responsible person did not want to reveal any information.)

e) Use of Cooperative Income

The income realized by the cooperative is administrated by the branch responsible for the economy. Their work is supervised and controlled by the headmen of the village.

It is common practice to subdivide the income into three parts:

- one third is used for farm inputs;
- one third is saved in terms of money to secure further development of the community;
- one third is used for community needs, since its members are regularly provided with goods (e.g. food, clothes) which are bought by the cooperative.

The individual households can also take advantage of the agricultural inputs bought and maintained by the cooperative. All members are provided with machinery services at a cost far below the usual price in the project areas, since they only pay the fuel needed for their respective farm plot (e.g. 20 l of diesel for ploughing 1 ha). Moreover they can use the canal system constructed and maintained by the cooperative.

f) Innovations

According to the hierarchical organization of the community new ideas or promising new agricultural practices are discussed and introduced by the headmen. The leading group is trained to look for improvements and they are chosen according to their ability to work for the benefit of the community. The chief of the village comes into this position also because of his ability as communicator who can handle problems with diplomatic care. One of his important tasks is to promote innovations which have been advised by the leading group and to keep

1) This interrelation has also been described by the village chief of Daarasalaam and by traders in Mubaarak.

contact with external authorities and agencies which could help to achieve this tasks.

The preconditions for innovation processes are far more favourable in this village than in other villages of Project Area A for the following reasons:

- the flow of information among the villagers is more open due to strong religious ties and the practised cooperations are not limited by tribal affiliations;
- the individual risks are reduced because of the pattern of economic administration within this settlement;
- the leading group is willing and trained to undergo risks for the benefit of the community and
- after all, the production of the cooperative is sufficient to meet the needs of its members.

Therefore in this village the readiness to adopt innovations is the strongest within the SHIRA Project Area, followed by Daarasalaam and, to a minor degree, by Mubaarak, both situated in Project Area B.

3.2.2 Individual Households

The individual households are dominated by the women. They are responsible for the family budget even though the men take considerable part in making decisions in all matters concerning the household. Although the households are interlinked with the community, the individual families are independent.

a) Land Use

It is common practice to provide each newly married couple with 1 to 2 ha of agricultural land which is increased by 2 jibaal for each newborn child. The size of the farm land given is designed to meet the family's needs and to be worked on by one woman and her younger children with some help from her husband. The cropping pattern on this land is commonly decided by the family. The variation of crops grown on the families' farm plots is larger than in the cooperative, as they are chosen to meet the needs for subsistence.

Table 39: Cropping Pattern on 3 ha (in ha)

Crops	gu'	dayr
Maize	2	0.33
Sesame	-	1.66
Groundnut	0.66	n.a.
Pumpkin	0.08	n.a.
Tomato	0.04	n.a.
Cow peas and Mung bean	0.22	n.a.

(Data for the dayr season were not fully available)

The cropping pattern listed in Table 39 represents the most frequent mode of land use during the gu season. Besides these crops the

individual households also produce onions, green pepper and salad in small quantities for their own use.

b) Labour

The labour required on the family farms is mostly done by the women and their children. They usually work on this land for three days a week, because the female members of the community are also called to work for two days a week on the land of the cooperative in periods of high labour demand. The female farmers cooperate intensively within their community in order to complete the work on their respective fields, to organize joint tractor services and to share the expenses for fuel.

The husbands help their wives if they do not have to work on the land of the cooperative or outside the village. But they are responsible for the irrigation of the family's farm. Like the cooperative they can take off water for three hours for each hectare of their family land if the waterflow is sufficient.

c) Crop Production

The crop production of the households is designed for the needs of the family. It depends on the knowledge and the ability of the female farmers where to put the emphasis since they have various and time-intensive duties in their individual households and within the social life of the community.

As this settlement is situated at the tail end of the presently irrigable riverine area the yields listed in the following Table 40 can vary considerably because of variations of the water flow in the Shabeelle River during both periods of high water level.

Table 40: Yield (kg/ha)

Crop	average yield (kg/ha)
Maize	1200 - 3000
Sesame	150 - 450
Groundnut*	
- with 2 seeds	450 - 550
- with 3 seeds	550 - 650

* plain seeds without shells

(Data on other crops were not available)

Source: ZELF Team 1989

d) Marketing and Storage

Production on the family farms is oriented to meet the needs for subsistence of the households. In case of a good harvest the households sell small quantities to the local shops or to traders from outside according to their need for cash. In periods of a poor harvest the individual households are asked by the cooperative to give or to

sell a share of their production to them. If sold the households receive approximately two-third of the market price. The difference of one third is used by the cooperative for community purposes.

Each household stores the amount of produce needed until the next harvest. A part of it is kept in the house for daily use and the rest is stored under supervision of the community members also in charge of distributing the items provided to the farm families by the cooperative.

4. Local Business

Within the settlement there are 22 shops (August 1989) which all have a similar assortment. They are usually operated by members of the community who live in a large family and who have to be approved by the village leaders. Some are also owned privately.

The private shopkeepers buy their goods mostly individually in Qoryooley if small quantities are needed, or in Mogadishu if larger quantities are required. The shops operated by the cooperative commonly buy goods together through a representative entitled to spend cooperative money. The customers of the shops are mostly villagers in need of short-term products for daily use or community members who want to sell small quantities of their stores in order to obtain cash.

5. Summary

The village of Sheikh Banaaney is an exception. Its social and economic structures are unique in the riverine area along the Shabeelle since they are based on strong religious regulations. They include defined forms of cooperation regardless of the tribal affiliation of the members. The standard of living achieved in this community is higher than in most other settlement of the SHIRA Project Area and the individuals are less exposed to the risks of the agricultural production. These risks and their negative effects are reduced owing to the existing informal institutions which secure the survival of the community. Moreover the headmen have the means and the possibilities to seek for forms of development which fit in with the requirements of the village community.

II. The Half-World Canal

The Half-World Canal

The Half-World Canal (nus duunia) is the canal which irrigates the agricultural land on the right bank of the Shabeelle River from its intake at the Farkeerow barrage as far as the village of Doon Buraale. Its construction was started by an awkeli at Maanyo Faarax and was gradually extended to its present length according to the requests and contributions of the villages down river. In the early eighties the Half-World Canal had been enlarged by excavator.

Management of the Canal: Matters are regulated by an akhyaar consisting of representatives from those communities taking off water from the canal. The present headman of this group is the village chief of Gorgaal, who cooperates with the village chiefs of Maanyo Faarax, Carmooy and Doon Buraale. Together they organize the maintenance of the system and the distribution of the water.

For the maintenance of the canal each farmer from the respective villages contributes a share according to the size of his land to be irrigated (e.g. approx 1500 So.Sh. for each ha in 1989). This money is collected in each village and administered by the village chief of Gorgaal, who organizes the machinery and supervises the performance of the work. The canal is desilted every two years.

The distribution of the water is discussed by the village representatives before the irrigation period with regard to the level of the water at the Farkeerow barrage. It is common practice to use a rotation system, allowing each village to take off water for an equal length of time before passing over the right to irrigate to the next settlement along the canal. This period varies from 3 days, if there is abundant water, up to 10 days, if the water flow in the Shabeelle River is scarce.

Constraints on this canal: The findings of the study reveal that farmers and local representatives consider the following problems to be the major constraints on this canal:

- The intake structure on the river bank is poorly designed. It is built with local material in the traditional way and has no device to regulate the intake of water. The actual construction cannot ensure adequate regulation of the water flow into the canal system. Furthermore it is frequently damaged by hippopotamuses which use this site to leave the river at night time when the inlet cannot be controlled by canal users.

- Owing to poor standards of construction, the embankment of this canal has numerous leakages, frequently causing inundations of large areas. Moreover, its present design is insufficient to provide abundant water for all farmplots within the periods when irrigation is required.

- At its tail end, near Doon Buraale, high water flow in the canal often causes damages on the embankment, inundating areas, which are usually irrigated by other canals.

Implication for Development: Activities concerning the Half-World Canal should consider some actual socioeconomic aspects, which could have considerable impact on further development:

a) The Half-World Canal is situated in the area of the Giddow tribe, consisting of two sub-groups living in the reach of this canal: the Wajiis, dominating the Maanyo Faarax - Doon Buraale reach and the Safer dominating the Malayley - Afgooye Yare reach (see also page 3). At present the course of the canal is situated in the area of the Wajiis, who traditionally were the political leaders of the tribe, whereas the Safer were the religious leaders. These groups have a different approach to further development of the tribal area. The Wajiis prefer extension of crop production whereas the Safer prefer the combination of livestock-keeping and agriculture, but without further interventions of settlers immigrating into their region. This difference meet in the village of Doon Buraale. The findings of the study reveal that in this village, where the political power is balanced between two sub-groups, the cooperation required for matters concerning the canal is endangered. The competition between the Wajiis and the Safer for the local leadership and the respective economic development affects the canal: The present village chief belongs to the Wajiis group whereas the farmers presently using the Half-World Canal are Safer or members of other tribal groups. According to local key informants the chief is not interested improving this main irrigation canal, since this would increase the chances for better agricultural production of his local opposition. But a higher income of these groups would endanger his and his tribal group's leadership in the village.

b) If the canal is extended up to Afgooye Yare, into the area of the Safer group, the representatives of the villages towards the tail end expect problems in the distribution of the water. They believe that their access to water would not be sufficient if the canal management is organized without external control, responsible for fair distribution in all villages and preventing a dominant influence of the Wajiis.

c) Local key informants expect that the rehabilitation of the canal will induce clearing of those bush areas, situated at the edge of the present agricultural land, which belong to absentees. They, too, will require water for irrigating their new agricultural land if they start crop production on these areas. Therefore further activities on the canal should take into account that its design should meet the water demand of both the present cropping areas and the (possibly) new areas of cultivation.

d) Asked for their preferences concerning improvements in the field of irrigation, farmers in Afgooye Yare favoured the reopening of the Webi Gof instead of extending the Half-World Canal up to their cultivating areas. The Webi Gof used to irrigate their fields before the Shabeelle River was straightened to benefit of the agricultural land between the river and the Farta Furuqleey. They expect that such a measure is more likely to secure independent access and sufficient availability of water for their fields.

e) Livestock keeping is crucial for the farmers in the reach of this canal, as well as for nomads watering their animals at the river in

the dry seasons. Therefore measures of rehabilitation should provide adequate passways for livestock to prevent destruction of the canal caused by uncontrolled crossings.

When the ZELF Team asked for an institutional framework for the organization of matters concerning the Half-World Canal, opinion leaders often mentioned the Department for Irrigation and Land Use (DILU) to be the adequate administrative institution to organize the access to all villages. Also because of these problems the village of Afgooye Yare favours the reopening of the Webi Gof which used to provide irrigation water before the course of the Shabeelle River was straightened in favour of the agricultural area on its northern side.

III. The Case of Darasalaam

The case of Daarasalaam:

As reported by the local authority the villagers intended to extend toward the bush on the right side of the Shabeelle River. Since, like in all other villages in the project area, it is common practice, to work on land which can be reached within 1 to 1.5 hours on foot, they wanted to found a new village at a reasonable distance from the present settlement. They knew of an adequate site within their traditional boundaries which has abundant groundwater to meet the needs of the population to be settled there (basically villagers and/or newcomers). But as this land had already been registered by an absentee (in cooperation with the authorities of Aw Dheegle) who uses this area and the groundwater for his own purposes, they do not see any chance for further extension. Moreover the absentee is opposing plans to dig a canal that passes his fields in order to irrigate land behind his area, unless he can participate in the use of the canal and unless it is paid for by the village.