

Table 36: Contribution to the Family Budget

Contribution	Area A	Area B
Women contributing:		
- having a boombo	68 %	74 %
- without boombo	32 %	26 %
Contribution in:		
Kind	50 %	28 %
Money	50 %	72 %
Both	29 %	12 %
Average daily money contribution:	293 So.Sh.	240 So.Sh.
(Mean variation	159 So.Sh.	135 So.Sh.)

Source: ZELF Team 1989

Table 36 shows the structure of contribution provided by those women who help to cover the family budget.

Besides being engaged in agriculture women are involved in local trading of agricultural products and firewood or marketing their own crops for the daily needs of their families.

6. FARMING POPULATION AND DEVELOPMENT - AN ASSESSMENT OF SELECTED BEHAVIOURAL CHARACTERISTICS

Agricultural production is the sector of the Somali economy where innovations are most readily adopted. Their introduction depends on decisions within the framework of the individual strategy of risk aversion. Therefore farmers consider various aspects of their socioeconomic environment in order to obtain criteria for the decision making process:

a) The size of their respective cultivated area. The findings of the study reveal that farmers estimate 3 ha to be the poverty line for the subsistence of an average family. Below this size of farm land the strategy of risk aversion is dominant and the farmers organize their production to secure the basic needs. Moreover they hardly have sufficient means or adequate labour capacity to buy external inputs or to perform new labour-intensive practices of cultivation.

b) The access to inputs. The availability of inputs is uncertain for most farmers and the prices can vary considerably. Therefore all innovations which require additional inputs are judged carefully.

c) Lack of knowledge. Although farmers are very interested in increasing their agricultural output they prefer to use those forms of production which have proved successful for generations. The findings of the study show that the major reason is the lack of knowledge of improved techniques of agricultural production.

d) Expectation of benefit. The innovations are expected to show benefit within at least one or two seasons. The farmers plan ahead only for a period they can assess, since their production is affected by various uncertain influences (such as availability of water, disease, fluctuation of prices, fund raising, siphoning-off of surplus by externals etc.).

Considering these major criteria, mentioned by farmers, there are three main groups among the agricultural producers:

- Small-scale farmers. Economically they are hardly able to use innovations without endangering the basic needs of their family. Moreover they do not have enough knowledge to judge the risks of adoption. The majority tends to use the persisting traditional way of production, since it requires inputs which are already available.

- Demonstration farmers. These farmers have, among others, have been selected by AFMET because of their readiness to undergo risks, their reputation as agricultural producers and their ability to handle new practices of production. This group represents a minority which is more likely to be open for adopting innovations.

- Large-scale farmers. They have the resources required to take the risk of adopting innovations. Furthermore they generally have better access to inputs. Their agricultural production is market-oriented and therefore their willingness to adopt innovations is guided by the effects on the farmgate prices for the respective products.

6.1 Acceptance of Innovations

The distinctive persistence of the traditional way of production and skepticism towards external measures have negative effects on the decision making process among the target group of the small-scale farmers. In addition to these more subjective arguments smallholders also consider the following factors to be relevant:

- Unreliable and insufficient fuel supply, particularly in periods of high requirement (e.g. land preparation by tractor);
- High costs for imported agricultural technology and inputs;
- Insufficient availability of spare parts for machinery;
- Poor access and availability of repair services;
- The prices for agricultural inputs, such as agrochemicals and fertilizer, are regarded as too high;
- The knowledge of improved agricultural techniques is insufficient and
- The costs involved in adopting innovations are regarded as too high.

These constraints concern the majority of small-scale farmers and to a minor extent also large-scale producers and absentees, despite their better provision with means and broad informal relations.

The adoption of innovations most likely occurs in the field of agricultural production. The main efforts are made in introducing technology to increase the output and in applying new techniques to increase the family income. The findings of the study reveal that the most common innovations are:

- The use of bulldozers for clearing new areas for cultivation and to prepare these plots for irrigation by constructing high embankments and by levelling the farm land;
- Tractors in combination with a disc-plough, which are increasingly owned locally or hired from outside;
- Mobile water pumps used for the offtake from the Shabeelle River directly;
- Substitution of local crop varieties by improved seeds bought on external markets or sold by local traders;
- Use of lorries and pick-ups for the transportation of the harvest from the fields to the settlement or to the market;
- Use of hired threshing machines in the market oriented production of maize (Project Area B);
- Diversification of income by producing tomatoes under the supervision of ITOP;
- Use of sacks and barrels for storing agricultural products and
- Use of motor-driven sesame mills with a higher output compared to the traditionally use mills which were driven by a camel.

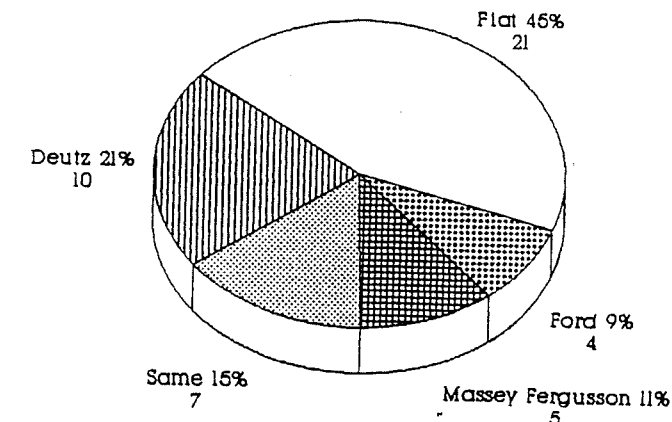
Among all innovations adopted in both project areas the use of machinery in agricultural production is the most important. The primary fields of their use are land preparation, transportation and canal digging.

Land preparation used to be done in cooperation by groups of farmers or relatives. Small-scale farmers often still use the traditional self-help groups to perform the work. Those farmers with sufficient means available prefer to hire a tractor with a disc-plough, commonly used in both project areas. Since the costs of renting a tractor are comparatively lower than feeding a self-help group or labourers, the demand for this service is increasing. The findings of the study show that the majority of farmers consider the poor availability of tractors as one of their major problems.

Traditionally it used to be the work of women to transport the harvest from the field to the settlement. They were paid for each sack when reaching the place of storage. Their payment increased considerably after the emigration of many farm families to the urban centres and with the extension of the cultivated areas. Therefore their service was replaced by lorries and pick-ups, which had a higher capacity and are cheaper compared to manual transportation.

The extent to which tractors are employed for land preparation differs from 65 % in Project Area A to 78 % in Project Area B. The availability of tractors varies in both areas. In Area A there are only few machines owned by villagers whereas in Area B there are some machines in each village (except Jawhar) owned by large-scale farmers. During periods of high demand there are also private tractor services offered by outsiders from other regions or urban centres.

Figure 12: Types of Tractors owned in Project Area B



Source: ZELF Team 1989

Despite the delays in availability arising from problems in the supply of diesel and spare parts the use of tractors seems to have become a fixed factor of agricultural production. The SHIRA Project could therefore improve the technical infrastructure by encouraging tractor owners to organize workshops for repair and maintenance of the machinery. At the same time knowledge about the adequate use and handling of tractors should be improved.

Only a few farmers are presently willing to switch back to former forms of land preparation but an increasing number of farmers see advantages in introducing animal traction.

6.2 Role of Planning in the Local Context

The findings of the study show that farmers have a profound aversion to governmental interventions of any kind. The interviewees were aware that tribalism, although officially abolished, is largely practised within the respective villages and the country as a whole. The widespread interrelations of the various tribes and tribal sub-groups induce specific structures of power and types of rule, which are used informally but neglected officially. Moreover, the authorities try to extend their privileges wherever possible, since their power and legitimation based on dependant relations to the various tribes and their tribal sub-groups.

This background determines the farmers' attitude toward external interventions. Their recent experiences with land grabbing (large areas in Jawhar, Bombaasa Kulub, Afooye Yare), external land registration against their interest but in co-operation with the formal local authorities, frequent fund raising activities (unofficial "fees" for governmental services; regular money contributions to development funds without any benefit for the villages, giving in livestock for unknown purposes etc) and suppression of any opposition have made farmers very cautious.

With respect to the SHIRA Project activities this attitude of the farmers is directed at the construction of the outstations in both areas. In Project Area A the building in Doon Buraale is understood as an outpost of the government. They expect that the authorities will take advantage of the station to increase their control and to improve the opportunities of exploitation. Moreover they believe that the funds needed for the construction could have been used directly for measures of improvement. In Project Area B the building is understood as a point of contact to receive inputs on the long run by foreign agencies and that it will focus future activities on the village where it is constructed.

Generally the farmers have more confidence in foreign agencies. The findings of the study show that they are the only institutions from whom farmers believe that they could obtain any support. But they expect that activities will have a direct effects on the individual progress within a short period of time.

The majority of farmers believe that they cannot influence the future. Their prospects for development do not exceed 6 months to one year and they are unwilling to accept activities looking beyond this period. In the case of the SHIRA Project this could affect the rehabilitated canals. They are designed considerably deeper and require regular desilting and maintenance to keep their favourable waterflow in the future. This includes labour at times when the farmers do not recognize the actual need, according to the traditional way of maintenance. Farmers reported that it would include significantly more physical work compared to activities needed on the traditional canals. These traditionally designed canals are only desilted when the waterflow is endangered. The new canals need regular and adequate maintenance to keep the depth required to preserve their improved water conductivity. For the new canals to be a lasting benefit, the necessary main-tenance work must be done regularly and not according

to the traditional patter of canal work. Moreover farmers' planning attitudes hardly include long term aspects.

The small-scale farmers have problems in approaching expatriates and government officials. They usually tend to satisfy what they think are the officials' expectations so as not to endanger possible benefits. They rarely oppose activities introduced from "above" because these are, to a certain extent, regarded as orders and these farmers had not been consulted when official development activities took place. The formal and informal representatives are usually large-scale farmers or the leaders are dependent on the leading tribal groups. Therefore the small-scale farmers do not regard them as their representatives, as far as their specific agricultural interests are concerned.

All farmers expect that any investment from their side will have an obvious benefit within a maximum period of one year at and they mistrust every form of collecting contributions if they have no confidence in what they consider would be the proper use.

The autochthonous planning activities have been designed and promoted by single persons who realize their plans because of their respect and power within the village community¹⁾. Their plans require the approval of the local informal leaders and they have to meet the interest of the population in order to encourage their participation and their contribution in terms of labour or funds.

As far as agricultural production is concerned these plans are oriented towards extending the farming area or the capacity for production, but not towards intensifying or diversifying cultivation. The latter is not included in the persisting risk-avoiding strategy used by the majority of farmers and it is not yet considered to be a contribution to securing the subsistence of the farm family. The major emphasis of autochthonous planning therefore lies on:

- improving the availability of tractor services;
- improvements in the field of water supply for irrigation;
- measures to prevent inundations;
- enlarging the canal system with machinery;
- facilities to cross the Shabeelle River by lorry etc, designed as barrage and bridge;
- better and more reliable access to inputs and
- improvement of medical services.

The above-listed topics are regarded as the basic problems according to the findings of the study. All key informants expected the SHIRA Project to support the villages in these fields in the first place. Moreover they expect financial help to realize local planning activities. The villagers intend to receive as much support as

1) For example: Mr. Buuwe and his son in Daarasalaam who both are very interested in agricultural innovations; Sheikh Osman in Mubaarak who once promoted the construction of a track to the bush in order to ease the way for the nomads to the village and its market; the gudomiye of Gorgaal who supervised the construction of the Half-World Canal; Sheikh Banaaney who founded a religious community according to his plans.

possible but are unwilling to accept measures to improve the whole area if their individual settlement has no direct and visible benefit. These topics are also understood as problems which concern all farmers despite their economic background and they were traditionally solved by the whole community or within tribal groups. Therefore the planning activities dealing with these topics were left to the local informal institutions (the various akhyaars, the WUAs and the formal representatives), who have to seek for solutions. Whereas diversification and intensification of agricultural production is regarded as an individual problem which requires individual activities and knowledge, traditionally the local institutions do not interfere in this field of problems. It is common practice, for the farmers themselves to be responsible for their agricultural production and they insist on work only for their own benefit. Cooperation is appreciated only if it contributes to the individual production in terms of benefit visible after a period of 6 months to one year.

In cases when farmers can recognize and understand that activities will have positive effects for them, they are willing to contribute either in terms of money, kind or labour. Local planning therefore uses the traditional institutions to organize the amount of individual contributions in respect of the farmers' economic capacity.

7. Social Environment and Project Activities - Conclusions and Recommendations

As a result of the socioeconomic study in the SHIRA Project Areas, carried out from March 1989 until August 1989, the Team of the Centre for Development Studies (ZELF) suggests some recommendations, which could strengthen and improve the ongoing and future SHIRA activities in the Lower Shabeelle region:

- A. Measures to Increase Confidence
- B. Better Incorporation of the Target Group in Project Activities
- C. Training of Farmers
- D. Land Registration
- E. Improvement of Infrastructure and Transportation
- F. Energy Supply
- G. Agricultural Inputs
- H. Animal Traction
- I. Production of Fodder
- J. Female Farmers and Development
- K. Impact of Forms of Self-help and the Water User Associations on Development
- L. Further Studies

The following chapter describes aspects of the social environment with considerable influence on project activities and describes conclusions and recommendations for further project development activities.

A. Measures to Increase Confidence

1) With regard to the impact of the ethnic constellations in the villages of both project areas, the project activities should include contacts with all groups within one settlement by contacting their respective headmen (tribal akhyaar). This could improve the cooperation with the target group and decrease undesired influence of the leading groups through the control executed by the members of the akhyaar.

2) The centralized political administration has not yet succeeded in obtaining the support of the population of the both project areas, and the majority of the population in most cases does not accept interventions from governmental institutions. Frequently farmers are asked for contributions to governmental development programmes without recognizing any benefits and at present they deeply mistrust official activities.

The SHIRA Project should take into consideration that its staff cooperates with the official institutions and is therefore regarded as part of the policy which the farmers have experienced as negative for them. Therefore the SHIRA Project should explain and discuss the tasks of its activities with the target group in each village and keep regular formal and informal contacts with the official and traditional leaders of the villages and region.