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MANUFACTURING FISHING VESSELS

An Evaluation of SIDA-supported Industrial Rehabilitation in Somalia.



By Staffan Larsson, Jan Valdelin.



The views and interpretations expressed in this report are those of the authors and should not be attributed to the Swedish International Development Authority, SIDA.

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MANUFACTURING FISHING VESSELS
AN EVALUATION OF INDUSTRIAL REHABILITATION
IN SOMALIA



This report is the result of an evaluation mission carried out between May 15 and August 28, 1985. The mission consisted of Dr Jan Valdelin, team leader, and Staffan Larsson, M BA, fishery consultant.

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SUMMARY

The following report presents the results of an evaluation of a project for manufacturing fishing vessels in Somalia. The objective is to identify a solution by which the Somali factory will be able to continue production in the future without state subsidies and by which the accumulated benefits of earlier allocated resources are not wasted by the withdrawal of Swedish support to the factory.

The major findings of the study are the following:

It was found that the main objective of the second phase of the Project's history, to rehabilitate an industrial project, has been achieved in that the factory in 1985 is a working production unit.

It was also found that the company cannot continue without foreign management services. In this respect the company has failed to reach one of its rehabilitation targets, i.e. to secure future management and growth of the company without external management assistance.

The project's development impact on the economy has probably been positive - disregarding opportunity costs - in terms of employment and of having demonstrated a model of industrial management for the Somali business and development community.

The evaluation of the vessel's performance suffers from the fact that fishing in Somalia remains in a very initial stage of development. Under prevailing conditions the 8.5 m boat from the factory is not an economically viable undertaking for the fishermen. This is, however, due to the fact that the boat, like other mechanized boats, requires a minimum level of equipment, infrastructure and fishing techniques, before it may be economically justified. This level has not yet been reached in the country. In this respect the Project is still an isolated factor of development in Somali fishing. Further development of fish-

eries in the country will improve the economics of operations with mechanized boats.

The major recommendations of this report are the following:

It is recommended that no further support will be given for the purpose of importing raw materials and spare parts to the factory. The company should be able to secure its need for imports from its earnings in Somali shillings. Such earnings may be converted into goods and/or hard currency in cooperation with Commodity Imports Programmes and Somali banking institutions, respectively.

It is recommended that the support to management services for the boat production project should be extended for six months in 1986 only.

It is finally recommended that a new form of support ought to be given for the transformation of the present firm into a joint venture with the participation of Somali state capital and Swedish state capital as well as private capital from the two countries. The new business firm should produce a line of plastic products adapted to the needs of the Somali market and be designed for profitable operations right from its start. The support for the transformation of the company should not be given any longer than up to the end of 1987, as the joint venture should be off ground, at the latest, by the beginning of 1988.

1. INTRODUCTION

The present report is the result of an assignment made by the Swedish International Development Authority (SIDA) to ICS Interconsult Sweden AB (ICS) in May 1985. According to the Terms of Reference (ToR) enclosed to the contract the consultant should carry out an evaluation of the assistance extended to the Somalia Glass Fibre Reinforced Plastics Products Company (GRPC) within the framework of the development cooperation between Somalia and Sweden.

The consultancy team for the study was formed by a cooperation between the Swedish National Board of Fisheries and ICS in that ICS supplied the team leader and economist, while the Swedish National Board of Fisheries supplied the fishery consultant. The team consisted of Dr. Jan Valdelin, team leader, and Staffan Larsson, M.B.A., fishery consultant.

The evaluation study was carried out between May 15, 1985 and August 28, 1985. Data were first generated in Sweden by interviews and from documents. Those data were appended by data generated by interviews and field visits in Somalia from June 3, 1985 to June 11, 1985. During the course of data analysis and report writing in Sweden some further interviews were made in August 1985. Those persons who have kindly met the team and thus contributed to this study are listed in **Annex 1, List of Persons met.**

In the following two sections of the report, the purpose of the report and the objectives of the evaluation are stated. Section 4 gives the Project's background and history. The results of the study are reported from section 5 and on, first in terms of company performance, followed by vessel performance (section 6) and project performance (section 7). In section 8 a general background description of fishing in Somalia is

given. While section 5 goes into some details about the company as a firm, section 7 looks at it in terms of a project of industrial rehabilitation. Section 8 presents some comments on the performance of the Swedish supplier to the project. After a short summary of project impact in section 9, section 10 goes on to show the present status of the company. In section 11 some of the important factors in the Somalia business context are presented, before the three final sections, where conclusions and recommendations are arrived at (Future Chances of Profits, Future Prospects and Conclusions and Recommendations).

2. PURPOSE OF THE REPORT

Three major purposes are attached to the evaluation study:

- to present facts about the Swedish assistance to the programme for fishing vessel acquisition in Somalia
- to illustrate the impact of the extended assistance
- to create a basis for decision-making as to the future activities at the factory and the Swedish assistance

The purpose of this report is to bring out the results of the study in terms of those tasks. A particular emphasis is being put upon the fact that the results should serve as a basis for decision-making. The report is presented in a situation where crucial decisions for the future of the project must be made.

In the fall of 1985 the Swedish authority involved, i.e. the Swedish Commission for International Technical Cooperation (SITC), presently granting financial support to the project, will decide the size of a possible final grant for 1986 and how to avoid negative consequences of the discontinuation of the Swedish support.

That decision will be based on a plan for future production in the GRPC factory. To that end the Swedish supplier of management services to GRPC, Mölnlycke Marin AB (MM), has delivered a paper presenting the management's future plans for the GRPC.

This report should contribute to the making of a decision as to the future role of Swedish international cooperation in the GRPC project. The need for a decision arises from the fact that the chances of continued

support to the project are very small. Since the political decision that SIDA's involvement should be phased out and the stepping in of BITS, the latter has communicated to the parties involved that continued support after 1986 is out of question, at least along the present lines. This is due to several circumstances of which the following are the most important ones:

- the purpose of BITS is not primarily to finance hard-ware imports
- the role of BITS should normally not be the one of supporting on-going projects
- Somalia is not found among the group of countries having a standing programme of cooperation with BITS
- the GRPC project is too large for BITS, i.e. it presently occupies too large a share of the total resources of BITS

When this evaluation study started it was thus deemed possible that BITS could prolong its support into a final allocation for 1986, but that no further cooperation would be available in its present forms.

3. OBJECTIVES OF THE EVALUATION

The objectives of the present evaluation study have been to:

- assess the GRPC project as a project of industrial rehabilitation
- assess the potential of the GRPC to become economically viable, i.e. to operate at a profit, considering alternative levels of capacity and external support (management services)
- assess the performance of the Swedish contracted supplier, i.e. MM
- assess the impact of the GRPC on the accessibility of means of production for fishing and on the fishing yields
- assess yields and economy of fishing with the GRPC vessels
- assess the impact of the vessels' production on the national economy
- identify and assess spin-off effects of the project

Due to the present decision-making situation (outlined in section 2 above) two particular aspects stand out in terms of the objectives of the study.

First, it seems necessary to seek an alternative solution for the future GRPC, a solution where no Swedish state subsidies are involved. This is so, because no such subsidies may be available in the future. A reply to the question whether GRPC could survive without subsidies or not should be sought.

Second, in the case of a future discontinuation of the Swedish support, ways ought to be found to contribute

to the safeguarding of lasting benefits of the project. A withdrawal of Swedish support should not endanger future benefits to Somalia of what has been achieved up to the point of withdrawal.

4. THE PROJECT

The Project of this report is the total of Swedish assistance extended to a plant for the production of fishing vessels, situated just south of Mogadishu, Somalia. It is presently run by GKPC. The ownership, formal status and the organization of the plant have changed over time, the major change being the one in 1982, when MM replaced Volvo International Development Corporation (VID) as the main supplier of goods and services. The period before this take-over will be called phase one of the plant's history, and the following period will be called phase two.

Strictly speaking, the Project to be studied in this report is just the second phase. The first phase will be briefly accounted for, however, as a background to the analysis of phase two.

The Project started in 1975 on the basis of an agreement between the Somali Ministry of Fisheries and the Swedish producer of boat engines, Volvo Penta. The contract between those two parties presupposed that SIDA was to pay the costs of the project. This became a fact when SIDA agreed to finance the boat factory and the supplies needed as part of the Swedish relief assistance to Somalia. By the end of 1975 Somalia had requested such grants. The negotiations between Volvo Penta and Somalia were then well on their way.

The agreement of December 1975 between Volvo Penta and Somalia included delivery of the plants, equipment, input materials for 100 6.4 m boats as well as six months of training for two persons.

SIDA allocated 15 million SEK during the fiscal year

of 1975/76 and explicitly stated that the matter was an affair strictly between the state of Somalia and Volvo, i.e. SIDA tried to stay away from any responsibility (other than financial) for the project.

The new plant was opened in 1977 under the auspices of the Ministry of Fisheries.

In the following four years the plant was run under basically the same institutional conditions. Volvo Penta was replaced by VID on June 1st, 1978, which did not bring any major changes as to contracts, deliveries of goods, vessel design, management services or local organization.

SIDA allocated 15 million SEK annually, without any long-term obligations. During 1977/78 the relief assistance was transformed into an annual budgetary frame for imports to the Somali programmes of water supplies and resettlement. In 1978/79 all the import support was allocated to the resettlement programme, that included the boat factory.

In 1979 the form of the cooperation changed again. SIDA decided to allocate 45 million SEK for three years, as a support to the fishery sector in Somalia. This programme terminated on June 30th, 1981.

SIDA officials paid visits to the factory in 1976, 1977 and 1978 reporting that performance was satisfactory. By 1981 Volvo Penta had delivered for about 15 million SEK and VID for 20,7 million SEK. All foreign currency needed for the payments of such deliveries came from the SIDA budget.

In 1979 the first reports of serious problems came to the attention of SIDA. By mid-1980 a consultancy study of the resettlement programme was undertaken by SIDA.

The SIDA decision on support for 1980/81 and 1981/82 became, for the first time in the history of the Project, dependent on the fulfilment of specific conditions. For the support in 81/82 it was requested that a plan should demonstrate the viability of the plant from July 1st,

1982, and onwards.

After a consultancy report in 1981 on the performance of the plant, SIDA decided to intervene by negotiating with VID and Somalia. The duration of the contract between Somalia and VID at the time was reduced to one year and cut down from 28,5 million SEK to 6,8 millions.

Due to the unsatisfactory results achieved by the plant, SIDA decided to change the conditions for further cooperation. In the fall of 1981 SIDA negotiated a solution with the Somali government, VID and MM, whereby VID was completely replaced by MM as a supplier to the plant; management services from MM to the plant were included in the new contract and the plant itself was taken over by an autonomous company owned by the Ministry of Fisheries and governed by a board of administration. The payments from SIDA became dependent on progress reports from the company.

These measures taken together mark the creation of a project in the classical sense and thus the start of phase two of the Project.

The new Swedish partner took over by the beginning of 1982.

The Project got a new specific purpose in phase two. From then on, the purpose of the Swedish support was to create a profitable company within three years. Admitting that an initial year of reconstruction was needed, that period of three years comes to an end by the beginning of 1986. The other part of the particular purpose was that the Project should be turned into a joint venture with the participation of Swedish firms and the Swedish state. The alternative of continuing the support in its present forms also after the three years, was not foreseen in the plans and decisions underlying the assistance given during the years of 1982-1985.

The nature of the purposes of the Swedish support would seem to justify that the Project has to be regarded

as mainly a project of industrial rehabilitation - to turn a failure into a viable concern in three years'time by a programme of material inputs and management services.

The financial flows of the two phases have not been exactly identified in the study. For phase two, however, data are available. Disbursements in 1982-1984 amounted to approximately 4.9, 7, and 6.2 million SEK, while around 5.8 million SEK are foreseen for 1985.

The utilization of the funds has varied over the years. Basically the following goods and services have been bought: material for the construction and maintenance of the factory, machinery and equipment, engines and fishing gear, input materials for boat production, training, technical support as well as management and procurement services.

Several parties have been involved since the inception of the Project. On the Somali side there is mainly the Ministry of Fisheries, but in the second phase also representatives of the private business community, as members of the board of administration of GRPC. The financiers have been SIDA and BITS. The suppliers have been Volvo in phase one, and MM in phase two.

The milestones in the history of the project have been the original contacts between Volvo Penta and Somalia, the criticism raised against the production unit in 1980 and the major change of the project in 1981. From 1982 on the crucial activity has in fact been one of rehabilitating a sinking commercial venture into a viable organization for the industrial production of fishing vessels.

5. EVALUATION OF COMPANY PERFORMANCE 1982-1985

General Economic Impact of Company

The company's general impact on the development of the national Somali economy may be discussed in general terms of effects on employment, foreign currency and the output's contribution to fishery development. Some comments will also be made on the intangible effects of the reconstructed company.

The company employed a total of 37 persons in June 1985. When MFI took charge of the factory there were about 80 persons employed. About half of this work force was immediately laid off in 1983, but was employed by the Ministry of Fisheries. Since then no reductions of the work force have been made. Out of the total, 21 employees were engaged in direct production in 1985. The Project's direct contribution to the objective of increased employment in Somalia is consequently 37 engaged persons. (No opportunity costs are considered in this discussion.) The indirect effects cannot be estimated. There are no reliable statistics as to the number of people engaged on boats sold, nor what their occupation was before becoming part of the crew for a new or repaired boat.

The foreign exchange effects of the Project may be as briefly summarized. Basically, the net effect on the availability of foreign exchange created by the company is zero. Unless opportunity costs of the hard currency spent by the company is used, there are no negative effects of the imports to the plant as they are covered by foreign grants. But to the extent that Somalia covers part of the hard currency requirements from their own reserves, a minor negative effect on the balance of payment is in fact created (like in 1984 and 1985) which is not compensated by export sales from the factory.

The development impact of the production must be

measured partly by the quantitative output of the plant. This is given in the following table.

TABLE 1: FACTORY UNIT OUTPUT 1982-MAY 1985

| Product | 1982 | 1983 | 1984 | Jan-Mar 85 | Plan 1985* | Total 82-Mar 85* |
|-------------|------|------|------|------------|------------|------------------|
| 6.4 m | 35 | 0 | 0 | 0 | 0 | 35 |
| 8.5 m | 0 | 35 | 26 | 9 | 30 | 81 |
| Hours | n.a. | n.a. | 12 | 10 | 10 | 22 |
| Water tanks | 8 | 85 | 370 | 75 | 400 | 863 |
| Latrines | 0 | 0 | 0 | 0 | 100 | 100 |

Columns marked with * includes company projections for 1985; n.a.: figures not available.

The development effects of this production depend on how the output is put to use in the economy. The sales figures are given in the table below. The figures are presented to the extent it has been possible to secure data. Although it is known, for example, that water tanks are sold at practically the same rate as they are produced, sales figures are not presented in this table, unless such figures have been presented by the company.

Furthermore, the company has been producing service and repairs on existing boats. The repair of a great number of 6.4 m boats is here regarded as a cost of rehabilitation of phase one. It should not be seen as a positive net effect on growth from phase two, over and above the effects of phase one.

TABLE 2: COMPANY UNIT SALES 1982-MAY 1985

| Product | 1982 | 1983 | 1984 | Jan-Mar 85 | Plan 85* | 82-Mar 85* |
|-------------|------|------|------|------------|----------|------------|
| 6.4 m | 15 | 10 | 0 | 0 | 0 | 25 |
| 8.5 m | 0 | 20 | 41 | 0 | 20 | 81 |
| Houris | n.a. | 0 | n.a. | n.a. | 0 | n.a. |
| Water tanks | 0 | n.a. | n.a. | n.a. | 400 | n.a. |
| Latrines | 0 | 0 | 0 | 0 | 100 | 100 |

Note: Unit sales for years or products given as n.a. were not possible to secure; the nine boats produced up to March 1985 were ordered by customers in 1984; while not recorded as sales here it should be noted that no stocks of finished 8.5 m boats existed by the end of the 1st quarter 1985; * signifies that the figure includes company projections. All figures are unreliable due to insufficient data.

In June 1985 the cost of importing a 8.5 m boat from Sweden was approximately 190000 SEK (cif). This is equivalent to the price of a boat produced in Somalia. This illustrates the small marginal economic advantages that production in Somalia is able to create, in terms of the acquisition of vessels. Service and repairs may be produced at a lower cost by a workshop rather than a factory.

Given the above figures we may conclude that the Project (as long as no opportunity costs are considered) has a positive, albeit minimal, effect on employment, probably a small negative effect on the balance of payment and a certain positive effect on the availability of vessels for the fishery development in Somalia. How to evaluate this latter contribution in terms of growth will be further discussed below in terms of boat economics and

alternative supplies of vessels.

Company Performance

The performance of the company itself is more conducive, than the general development impact, to an evaluation in quantitative terms. Some indicators will be looked upon in order to find out whether the company is moving in the right direction, starting from its March 1982 scratch point of departure.

First, company sales have been improving over time, at least up to the first quarter of 1985 when the devaluation of the Somali shilling had put boat sales to a halt. The following table illustrates sales development.

Please note the relation between 1984 and 1985 sales: most products experienced increased sales in the fall of 1984 as buyers were anticipating devaluation. Consequently sales were dropping in the first quarter of 1985.

TABLE 3: COMPANY SALES PER PRODUCT 1982-85
('000 SMS)

| SALES | 1982 | 1983 | 1984 | 1985 Jan-Mar | Projected [*] 1985 |
|-------------------|------|------|-------|-----------------|--------------------------------|
| Boats | 1014 | 6274 | 15434 | 414 | 1656 |
| Spare parts | 600 | 947 | 1904 | 619 | 2476 |
| Repairs & service | 152 | 341 | 295 | 38 | 152 |
| Sundry sales | 1153 | 587 | 1603 | 122 | 488 |
| Water tanks | 0 | 1138 | 5803 | 2443 | 9772 |
| Total sales | 2919 | 9287 | 25039 | 3636 | 14544 |

^{*} The projected sales for 1985 represent the company forecast.

The company's financial situation (in terms of SRS) has improved every year. Liquidity (in SRS) has been very good, starting at around 400% by the end of 1982 and increasing in 1983 to end up at around 400% again in March 1985. Solidity is also excellent, staying above 90% for the whole period. These figures would be even more impressive had the results of operations been better. In the present situation, however, a strong solidity and high liquidity are necessary to provide for possible financial strains due to lower sales. Please note that liquidity in terms of foreign currency is constantly low.

The rate of return on total capital calculated in the same way as the company presents the result and thus including the SIDA contribution, has been over 25% every full year. In the first quarter of 1985 it was almost 30%. Without the SIDA contribution the rate of return has been negative or strongly negative except in 1984 when it reached 6%. (All these figures are calculated exclusive of the cost of foreign staff, i.e. the management services according to the contract with MM).

The company's accounting does not meet the standard requirements of industrial cost accounting and is consequently not conducive to in-depth analysis. The costs of operations seem to be a mixture of costs and disbursements - there is no way to tell the difference from the accounts as presented by the company. As a consequence, the cost analysis of operations is practically impossible, strictly speaking. There is no way, for example, to calculate the actual cost of each separate product, to estimate the capacity of the plant in terms of separate products or to calculate the opportunity cost of the production of each separate item. Consequently there is no way to tell each product's contribution to overheads and to compose the optimal product mix. In fact, it is not possible to tell the difference between overheads and variable costs of production from the present presentation of accounts.

The above notes on the accounting system of GRPC leads to an assessment of the management of the company. From a quick glance at the offices and workshops of the GRPC unit outside Mogadishu it seems that the management of personnel and production is of top quality. Production works smoothly, as well as maintenance and upkeep of the area. Output is improving over time and the quality of the products is sufficient.

The critical remarks as regards management will be restricted to the accounting system, as has already been noted above, and the training of local management staff. According to the contracts agreed upon, the management services include specific tasks of training and the production of training manuals for those tasks. The idea of such paragraphs in the contracts has certainly been to reach a situation where local staff would be able to take over the management of the factory. This has not been achieved. While this is obviously an argument for the extension of the foreign management services, it must also be questioned whether this is due to the fact that the tasks agreed upon have been fulfilled, but without success, or whether in fact the training aspect has been neglected by the supplier of management services. There has been practically no "somalization" of management of the company since 1982 and no solution to this problem is close at hand.

The marketing of the company is being done without any particular budget and by very small expenditures for outside services. This seems to be the best way to carry on, given the present market situation for the products. (Cf. below section 10)

Distribution of the sold products, planning of purchases and production, deliveries from Sweden, local purchasing and payments all seem to work out properly.

The owner's role is at present negligible. By its representative in the board of administration the Ministry of Fisheries is exercising its control of and

its contribution to the company's policy-making and management. The team's impression is that the role of the owner could be greater, both as a customer and as an adviser in product development.

The question is whether a private Somali ownership participation could serve to increase the sales of boats, improve the ties with the market for research and development and enhance the chances of success for the somalization of management.

In research and development the company's major forward step during the period of rehabilitation is the introduction of the 8.5 m boat, that was originally developed by MM for Angola and another project. Local adjustments and improvements have then been added in Mogadishu. In 1984 the company also introduced a plastic model of the traditional canoe, the houri. Otherwise the new products of the company have been other products than boats. The water tanks and the latrine covers are examples of ingenious local product development, stemming from the fact that the product managers exercise their tasks in Somalia itself. It may be true that a future GRPC without foreign staff would be suffering from lack of technical know-how for research and development, but it is even more true that future product development of boats without an intimate working relationship with local fishermen and expertise would be even more hazardous. Foreign expertise may easily be called in for specific technical solutions to product development problems in the future. The close contact with the market may be achieved, however, without permanent presence of foreign staff.

To sum up the performance of the company during 1982-85 it may be said that a few quantitative indicators tell us that things are improving. The few critical remarks about the management of the firm should not disturb the fact that the improvements in management from 1982 are considerable and that the GRPC today is a

well-run enterprise, in many respects a model example for assistance projects and business firms in Somalia.

As for the actual issues of this study, the future of the GRPC with or without foreign staff, with or without foreign grants, we refer to the final sections of the report. The next section deals with the evaluation of the 8.5 m fishing vessel. From there, the following section moves on to evaluate the Project as an example of industrial rehabilitation, before the questions of the future are approached in the remaining sections.

6. VESSEL PERFORMANCE: EVALUATION OF THE PRODUCT

Introduction: fishing in Somalia

Somalia has a coast-line of about 3,300 kilometers - one of the longest in Africa. The coast-line consists of a series of sandy beaches, interrupted by rocky cliffs. There are only a few harbours: Berbera, Mogadishu and Kismayo.

The continental shelf is narrow. It rarely exceeds 15 kilometers. The total area is estimated to be between 35,000 and 40,000 square kilometers.

Climatic conditions are normally severe, with changes following the monsoons, the south-west monsoon (April- September) and the north-east monsoon (October-March). During the intermonsoon periods weather is normally calm.

The fishery potential in Somali waters is estimated to be 180,000 - 200,000 tons of annual sustainable yield. This assessment was made by the research vessel Dr. Fridtjof Nansen in the mid-70's. The quantities per category of species were:

TABLE 4: SOMALI FISHERY POTENTIAL (ton/year)

| SPECIES | TONS/YEAR |
|--------------------|---------------------|
| Tuna and mackerels | 8000 |
| Small Pelagics | 100000 |
| Large Demersals | 40000 |
| Sharks and Rays | 30000 |
| Spiny Lobsters | 1500 |
| Sum | 179500 |
| Meso-pelagics | (large but unknown) |
| Estimated total: | 180-200000 |

In the past fishing has played no significant role in the Somali economy - production and demand have been too low. The Somali people traditionally prefer meat to fish. In recent years fishing has gained in importance. An increased fish production will, however, mainly have to be exported. The domestic market will be limited due to tradition and logistic problems. Functioning local markets are presently supplied by traditional fishing. There are no prospects of basing mechanized or industrial fishing on the local demand.

Registered fishing production has increased from 6004 tons in 1974 to 14400 tons in 1981. Out of the total the artisanal fisheries accounted for 3974 tons in 1974 and 4100 tons in 1981, with a peak production reached in 1975 at 7900 tons. The increase in 1975, followed by a decline in 1977- 1979, was caused by the acquisition of some 600 inshore boats, followed by the incapability to maintain the boats and keep them in operation.

The number of people engaged in artisanal fishery is estimated at 3000 full-time and 6000 part-time fishermen. Around 100 fishermen are employed by the industrial fleet.

Artisanal fishery in the small remote villages along the coast is in many places based on a long tradition. There are a number of villages, especially on the Worn and in the south, which have by tradition been engaged in fishing. The catches were traditionally dried and sold to Arab "dhow-traders", who were sailing along the coast down to Kenya, Tanzania and Zanzibar, where the fish was sold.

In the beginning of the 1970's this traditional trading was banned. A state-owned fishing company was to cater for the dried fish and distribute it. This failed. The ban has now been lifted and the "dhow-traders" are beginning to resume their activities. Today, dried fish is also sold directly to the Arab countries by Somali

traders.

Due to the drought in 1973-74, a large number of nomad settlers were trained as fishermen at the settlements of Brava, El Ahmed, Adale and Eil. During the years after 1974 the fishing sector grew in importance in Somalia. Heavy investments were made in boat and gear, both large and small-scale and people were encouraged to eat more fish. This was also the period when the GRPC Project first started by the means of relief assistance.

During this first period up to 1977 the fishery was organized in state-owned corporations and cooperatives, influenced by technical assistance from the Soviet Union. In the 80's private ownership has been allowed and encouraged.

According to the type of boats used the Somalia fishing may be divided into three levels:

- industrial fishing: vessels of modern design and carrying advanced equipment
- mechanized fishing: boats with inboard engines, such as the 6.4 and 8.5 m boats of GRPC.
- traditional fishing: canoes of a traditional type (houris)

During the last decade emphasis has been put on the development of industrial and mechanized fishing.

The **industrial fishing fleet** consists of nine 23 m glass fibre reinforced plastic multi-purpose fishing vessels built in Yugoslavia, two 25 m steel trawlers purchased second-hand from Australia and three 67 m stern trawlers-freezers built in Italy. The experience of the fleet so far has been very discouraging. Only a few vessels have been in operation. One major set of reasons for this failure is to be found in the lack of facilities necessary for operating the boats, such as workshops and shipyards as well as trained crews, which are not to be

found in Somalia.

According official figures from 1981 the **mechanized fishing fleet** then consisted of 308 mechanized boats in working condition, out of a total of 685 boats originally delivered. Except for a number of boats delivered by the Soviet Union, all boats are made out of glass fibre reinforced plastics. They are of sizes varying between the two Swedish models (6.4 and 8.5) and manufactured also in Kenya, Sri Lanka and Greece. Since 1979 more or less all new mechanized boats have been delivered from the GRPC factory.

The mechanized boats operate from harbours or shelters, and in some instances from the open coast. They are normally moored outside the beach. None of the boats were built for beach-landing. A large number of the delivered boats are out of order. They are either wrecked, damaged or waiting for engine repair. The situation was worse some time back. Presently, boats worth repairing have been attended to with assistance from the GRPC.

The CDF, responsible for the nomad settlement programme, was one of the larger boat-owners. When the decision was taken in the beginning of the 80's to sell out the boats to the fishermen, only 20 boats were operational. These boats have been sold, together with 50-70 other boats which have been repaired.

In the **traditional fishing** mainly two types of crafts are being used. The first is the "hour", a planked canoe, 3-4 m long, and the second is the "mashua", mainly used in the southern province and built in lengths of 6 to 9 meters in timber imported from Kenya.

The "hour" is manned by one or two crew members and the "mashua" crew varies between 3 and 10 men. The latter is often propelled by sail.

There are about 2000 traditional boats in Somalia.

Fishing methods

In the industrial fleet trawling is the predominant method. In the mechanized as well as in the traditional fishing the gear used consists of handlines, long lines, gill nets, both bottom and drift nets. In the traditional fishing beach seines are common seasonally, and they are operated from the traditional boats. Regionally, i.e. in the south, lobster fishing is important.

Plans for development

In a recently presented master plan for 1982-86 ("Interim Report on Fishery in Somalia") the Ministry of Fisheries outlines ambitious plans for the development of the sector. There are a great number of ongoing or approved projects.

On the north coast **UNCDF** is supporting the development of the artisanal fisheries and cooperatives around Berbera. **Danida** is supporting the establishment of a cold store in Berbera.

The **World Bank** and the **Arab Fund** are financing the "North East Coast Fisheries Enterprise" (NECFISH). The aims of the project are first to develop the artisanal fisheries, including boats and landing facilities, and secondly to try to make commercial use of the pelagic resources through a pilot project with larger vessels.

The CDP covers the coast from the Horn to Brava. With various fundings the project supports the artisanal fisheries with gear, boats, data/statistics, credit and transports.

SMP is a company supported by the Federal Republic of Germany through Kreditanstalt für Wiederaufbau (KfW). The company runs a cold store in Kismayo for export of fish products. It also runs vessels for the collection of fish from the islands outside Kismayo. The company has a fleet of five 8.5 m GRPC boats. It cooperates with the

local fishermen's cooperative.

Utilization of the 6.4 and 8.5 fishing boats

The GSFC started its production with the 6.4 m fishing boat. The boat, originally an open boat built for outboard engines, was converted to a double ender and fitted with an inboard diesel.

The performance of the boat was very poor and there were many complaints raised against it:

- the engine was not adapted to the severe conditions in Somalia
- there was a lack of spare parts and maintenance
- the construction of the boat was too weak with a lot of damage to the hull as a result
- the design was not suitable except for inshore use and for the calm season.

When MM took over production, the design was modified and production cut down. The 8.5 m boat was introduced by MM with a special ice box system. The boat had been designed for Angola, but modified with a conventional deck for Somali conditions with the assistance of World Bank experts. The boats are similar to the Sri Lanka and Greek types of boats which had been introduced before the MM boat. The MM 8.5 has a larger displacement and is more solid and better constructed. However, this makes the boat heavier, which hampers the possibilities of hauling it onto the beach. This fact restricts the utilization of the boat geographically. Suitable areas are the southern province, where the boats may operate from the Kismayo harbour, and the islands. On the northern coast the severe weather conditions require a heavy boat like the MM 8.5 m boat. On the east coast from the Horn and southwards the lack

of shelter calls for a lighter boat, that may be hauled onto the beach. This was easier with the lighter Sri Lanka boat, than with the 8.5 m GRPC boat. However, none of these boats are specially designed beach landing boats.

It has not been possible for the mission to assess or find advantages of the MM 8.5 m boat compared to the 8.5 m Sri Lanka boat. Both are used for the same type of fishing. It is, however, clear that the 8.5 m MM boat in size and design covers a segment of the demand in the Somali fishing sector.

An additional problem with the 8.5 m boat is that its engine remains basically a modified leisure-boat engine, not adapted well enough to fishing in severe conditions. This is a general complaint raised against the product of GRPC. This has long-term implications for service and repairs. The operation of shifting from one brand of engines to another one is not very easily done.

The viability of the 8.5 m boat

The January 1985 devaluation of the SHS has drastically effected the economic viability of the mechanized boats. In March 1985 the price of an 8.5 m boat was six times its January 1984 price. Previous calculations had given a viable fishing operation based on an overrated currency. The exchange rate is now approaching the level of its market rate. Both GRPC and SMI have independently presented economic viability calculations for the operations of the 8.5 m boat. These calculations are annexed in **Annex 2, Viability calculations**, together with an up-dated version of a calculation made by the World Bank in its 1984 report.

The fishing operations with the 8.5 m boat are under present circumstances not economically viable. There are a number of factors influencing this negative result. The major ones are:

- The price of the boat. In an effort to counteract the effects of the devaluation the GUPC has developed a simplified version without whaleback at a price of 1.4 million SMS. In each particular case it should be considered whether the fishing operation requires a mechanized boat, of which size, and whether the operation is viable. Due to all physical aspects traditional fishing could in many cases be more profitable. A beach landing craft developed in the SIDA/FAO Bay of Bengal Programme could be suitable.
- The price of fish. Development of Somali fishing will depend on the export market. The local market is very limited. Apart from the export of dried fish, mainly shark, going through traditional channels, all fish has to be exported frozen. At present there is only one company, SMP with cold store facilities in Kismayo, that exports fish. Later there will be facilities on the northern coast. The price of the fish depends on species. Due to low turnover in the cold store operations the prices offered to the fishermen are 12.50 - 13 SMS per kilo for ordinary species, 43 SMS per kilo for lobster and 9 SMS per kilo for shark. These prices are below local market prices, which obviously sets limit to the supply.
- The fishing operation with the mechanized boats has so far very much been of a subsidiary nature. The catches are too small and the time spent is too short for gainful activities. SMP intends to utilize Chinese or Kenyan skippers and crews to run a number of boats and to train Somali fishermen in more efficient fishing. According to the Master Fisherman of SMP the break-even point for mechanized fishing is at present as high as 625 kg per day at 200 days of fishing.
- The supply of inputs is too restricted. Presently

there is a shortage of nets and local service to the boats and the engines.

The viability of mechanized fishing (including the 8.5 m boat) is consequently not there under prevailing conditions. To change the factors that account for this situation a long period of structural changes is needed. In a very long-term perspective the boat may become a realistic alternative, but that has little relevance for the purpose of this report. In the short run, further devaluation of the Somali currency and a probable withdrawal of subsidies on diesel fuel will aggravate all break-even calculations, not only for boats but also for most onshore-based projects of fish exports. Their present feasibility analyses are based on price relations and subsidies no longer valid, e.g. prices of diesel fuel below levels prevailing in the USA.

7. PROJECT PERFORMANCE : THE COMPANY AS AN EXAMPLE OF INDUSTRIAL REHABILITATION PROJECTS

From the point of view of development cooperation the GBPC takes on its strongest interest as an example of industrial rehabilitation projects. The Project as such then comes into focus.

Let it first be noted that the project started phase one without any preparation on the part of SIDA. As the first grants were given as relief assistance, SIDA only paid the bill for the cooperation between Volvo Penta and Somalia. There was no involvement in the project design or in the specification of plans.

In the beginning of phase two, on the other hand, SIDA had gradually drifted into a situation where it was necessary to act, and act with determination and strength, to avoid a spectacular scandal. The project already looked like a failure and many issues were ambiguous about the relations between price and product. Consequently, SIDA took a very active part in the preparation of phase two. The Project design was worked out in the Industrial division of SIDA. SIDA had chosen a supplier based on earlier tenders in the same industry and asked the supplier to carry out a set of services defined by SIDA.

During the negotiations with Somalia and MM SIDA imposed its project concept and design on the two other parties.

MM should supply management and procurement service, as well as training and personnel to the factory. The task included the development of a new coast fishing vessel to replace the former 6.4 m boat. It also embraced the reconstruction of the factory itself, as well as reconstruction of the organization unit responsible for

its management. In short, these measures aimed at a total rehabilitation of the fishing vessel production unit.

A basic feature in the Project design was the new company structure. Somalia agreed to pass a special law to allow for an autonomous firm under the ownership and control of the Ministry of Fisheries. The special autonomy granted rights to the firm to have its own policy of prices and wages, its own organization model, its own policy of products and personnel, as well as a foreign exchange account. It was to be headed by a board of administration, where the Ministry of Fisheries has only one seat, together with other state and private board members. The company structure came to look a lot like a Swedish firm.

The law was passed and the company was the first firm in Somalia to operate under such special autonomy. Since then, there has been a few other examples, e.g. SMP and MECRISM. This model, negotiated with the Somali government, implies a very special situation for those companies as compared to domestic firms.

The technology of production used in the factory did not basically change by the arrival of MM, but it was made to function smoothly for the first time by the use of more appropriate means and the elimination of unnecessary sophistication.

From the start of phase two all Project contracts between the GRPC and MM were also signed by SIDA, i.e. SIDA shared the responsibility with the two other parties. This implies a stronger involvement than before and that SIDA approved of the contract, i.e. had the opportunity to build in its own objectives and purposes into the Project contracts. In doing so, SIDA was taking as good a share of the responsibility of the Project, just as SIDA normally does in direct agreements with institutions in recipient countries.

Consequently, all contracts may be seen as reflecting the SIDA objectives with the Project.

Requirements in terms of counterparts, training, training manuals and instructions, etc. must be regarded as means by which SIDA has tried to reach its objectives with phase two.

SIDA's explicit objective with the Project has been to rehabilitate GRPC in such a way that the company would be viable in three years and then be transformed into a joint venture between the Ministry and Swedish partners, i.e. a self-sufficient activity that does not need foreign assistance. Whether this economic objective will be reached during 1986 is discussed in the following section. After the Swedish political decision to discontinue the SIDA support to Somalia, BITS stepped in. BITS is pursuing largely the same policies aiming at economic independence of the firm.

In section 5 above the company's performance up to date has been analysed. Here, it should be noted only that the physical, organizational and functional rehabilitation of the production unit has succeeded. In 1985, the GRPC is a unit that is able to produce according to plans and functions as a model enterprise for the Somali business and development community.

The basic product concept was not discussed from a market point of view, neither before the relief decisions that initiated phase one, nor in the preparation of the rehabilitation project of phase two. This is a major objection to the quality of the project preparation in both phases: no real analysis was made to answer the question what modern fishing vessels in Somalia would be good for; i.e. what the market for the factory's outputs of boats was. In case such an analysis were implicitly made SIDA misjudged the time aspect of the rehabilitation of the factory and the growth of a market strong enough to make boat production economically viable. What may be undertaken now is, consequently, a limited analysis - not a comprehensive cost-benefit analysis in a broad development context.

8. PERFORMANCE OF MM: EVALUATION OF THE SWEDISH COMPANY

The Swedish supplier of management and procurement services has been responsible for the accuracy and quality of such services. In that respect the evaluation of the inputs from MM is identical to the evaluation of the performance of the GRPC itself, particularly its management, training and product development.

There is a slight difference, however, between the evaluation of MM and the evaluation of GRPC. MM cannot be held responsible for events beyond its control, i.e. particularly events stemming from the local environment in Somalia. But this distinction is blurred by the fact that the GRPC also has to submit to Somali events beyond its control. The most spectacular such events are of course sudden changes of economic policy, finance policy or monetary policy, such as the devaluation of the Somali currency.

To the extent that MM may be evaluated only on the basis of its services delivered from Sweden, strictly speaking, the team has found no reason to raise any objection to the performance of MM. It seems that recruitment of personnel, procurement and other such tasks are functioning very smoothly. The prices charged for the services seem to correspond to what is common practice in this sector of business.

It is therefore concluded that the evaluation of MM in the limited sense turns out positively. The evaluation in a broader sense will be dependent on the overall evaluation of GRPC and the Project. The merit of some of the "first ever"-events in Somali international banking caused by the activities of GRPC must be credited to MM.

9. SUMMARY OF DEVELOPMENT IMPACT OF ALLOCATED RESOURCES

A total of roughly 20 million SEK of disbursements have contributed to produce 70 8.5 m boats from 1982 to March 1985. Furthermore about 440 water tanks, 22 houris and 35 6.4 m boats have been produced. Total sales of boats, all categories, accumulated to slightly more than 23 million SMS, while water tanks amounted to 9.4 millions. During the same period spare parts have been sold for about 4 million SMS, repairs & services for about 830 000 SMS. Sundry sales have accumulated to approximately 3.5 million SMS. As can be seen, boats made up 56% of the total of 40.9 million SMS of sales. The relative importance of spares and tanks must be noted, as well as the great number of 6.4 m boats repaired in 1982.

The alternative of importing the finished products from, for example, Sweden would be as economic as local production. The factory is producing spare part deliveries and repairs and services of boats and engines, which on the other hand represents an output that cannot be substituted by imports.

It has further been concluded that the GNPC factory has had a positive, albeit minimal, net effect on employment.

The impact of the delivered boats in the fisheries sector has been rather limited too, mostly due to the fact that lack of infrastructure and dependence on world market exports make the economics of fishing bad.

As regards the Project as an example of industrial rehabilitation it is concluded that the factory has successfully been transformed from a situation of almost complete standstill to a functioning production unit. In this respect the Project has been very successful. A critical remark has been noted, i.e. that the

rehabilitation project never went into depth analysis as regards the economics of producing fishing vessels in the current Somali context.

boats it to be found in the "Interim Report". The Ministry envisages a demand of 1410 fishing boats of the 8.5 m size. These figures appear as part of an investment programme for the fisheries in the country. It is based on administrative criteria of planning, such as the assumption that each province will have the same number of boats, regardless of differences in natural conditions, harbours, population etc. According to the team's evaluation those figures are not realistic. Instead there are a number of factors to identify as influencing the need for boats as a constraint to the total number possible:

- the potential of fish is 180-200000 tons/year, giving an upper limit to yields. Taking into consideration the 3000 km coastline, the concentration of fish is also low. Only the pelagic species occur in more dense concentrations (long run).
- the geographic concentration, with scattered fishing villages, gives a long and costly distance between the producer and the market (long run).
- the lack of service facilities, such as workshops and spare parts, and the lack of fishing gear do seriously hamper an efficient utilization of boats (in the short run).
- the poor viability of the 8.5 m boat calls for alternative types of boats. A simpler type of the 8.5 m boat, a lighter boat conducive to beach-landing and with better sailing performance should be tested. According to SMP, a small trawler could be viable around Kismayo. A trawler around 12 meters could be suitable according to SMP estimates (short run changes possible).

In the present situation GRP is relying on foreign investment projects for sales of boats in foreign

currency. As far as the team has been able to assess the situation, such projects have the following plans.

TABLE 5: PROJECT PLANS FOR 8.5 M BOATS

| | SMP | CDP | NECFISH | UNC... | Total |
|----------------|-----|-----|---------|--------|-------|
| Purchased | 5 | 17 | | | 22 |
| Ordered | 7 | | | 7 | 14 |
| To be ordered | 8 | | | | 8 |
| Purchase plans | 75 | 49 | 28 | 3 | 155 |

NOTE: the SMP plans for 5 years of 50-100 boats have been annotated as 75 boats
Both SMP and NECFISH have delayed their purchase decisions after the devaluation

As can be seen from Table 5, the total of known purchase plans add up to 155 boats, i.e. roughly three years of production for the GRP at present capacity.

The problem is that these plans do not constitute a sound basis for a market forecast as they are, first of all, just plans that have been voiced long ago, while actual purchases or orders from the same buyers amount to 36 boats only. The organizations in question have, secondly, raised serious doubts as to availability of finance and the viability of the GRP boats, respectively, and thus delayed their decisions. The decisions are pending further analysis, that may lead to other results than the presented plans.

In a situation with very few potential buyers, while the fishermen are excluded from the market, and where every buyer's decisions depend on a number of non-economic and not necessarily pro-GRP considerations, the outcome of the purchasing decisions over the next few years is impossible to determine beforehand. It is beyond any doubt that the common knowledge in Somalia about the poor viability of the 8.5 m GRP boat has led to an

intensive search for alternative boats. The engine problems of the GRP boats add to the justification for such a quest.

The analysis of alternatives will no doubt lead to the identification of competition from imported boats. In the case of a build-up of new fleets there is no need on the part of the buyers to support GRP for the sake of keeping it operating. Such interest will only influence the decisions of those projects that already have a large fleet GRP boats equipped with Penta engines. CDP has around 100 boats of this kind (most of them are the old 6.4 m type) and has a strong interest in GRP being around, for the sake of service and repairs to the Penta engines. The other projects have not reached such fleet sizes that their future decisions will be directed by such considerations. In the case of SMP, financed by German assistance, it may even be a disadvantage that the GRP boats are built and equipped by non-German suppliers.

It may well be the case that future boat sales for GRP are wholly dependent on the development of new boat models, which are able to stand a test of viability at realistic prices of the boats, fish, fuel and gears. On the other hand it is also possible that the financial backing of the fishery development projects, in combination with pressure from the owner of GRP, may lead to purchases of the order indicated by present plans. What may be excluded at this point, however, is a self-sustained growth of demand for boats based on the development of independent fishing ventures in Somalia.

As this team judges the viability of projects like NECFISH and SMP to be poor, in the short run, due to the dependence on world market competition with a fleet based on onshore facilities at high capital cost and long hauling distances, it seems premature at this point to take any future sales to such projects for granted.

Unfortunately, it is not possible to come up with a

firm forecast of market demand for the 8.5 m boat under such conditions. The team's conclusion is, however, that demand for the 8.5 m boat during the coming years will rather be on the low side for the GRP, i.e. it is not at all evident that the factory will produce boats at volumes above the break-even point (even excluding the costs for the management services) for the boats.

11. ENVIRONMENTAL ASPECTS OF COMPANY ACTIVITIES

As in any country with serious balance of payments problems, the Somali business context offers some peculiarities. Under the pressure of worsening financial conditions and international opinions about what to do, the central bank and other financial authorities of Somalia have to take measures to improve the country's balance of payment without losing the chances of further international loans.

Thus, with effect from January 1, 1985, the Somali government started the implementation of an adjustment programme for 1985. This meant that conditions for the acquisition of foreign currency drastically changed. While the former official exchange rate to the US\$ changed from 26 SHS to 36 SHS, most transactions would be made at a market-determined rate. In June 1985 this rate was 84 SHS. The official rate will continue to be adjusted during all of 1985, with the aim of arriving at a situation whereby the official rate will equal the market rate in December 1985. Speculations abound as to which final exchange rate the government is aiming at. A good guess may be a rate of 100 SHS to a US\$.

From a situation where GRPC had to have permission by a special board to buy foreign currency at the official rate of 26 (in 1982 the rate was about 15 SHS), things over night turned into a new situation, where GRPC may change as much SHS as they want to at a market rate of about three times the former official rate. Of export earnings 35% must be exchanged at the official rate, while the remaining 65% may be kept by the exporter.

The devaluation forced GRPC to raise its price of a 8.5 m boat from less than 335 000 SHS in December 1984 to almost 1,9 million SHS in June 1985. The economics of

fishing with a 2 million SRS boat are such that nobody who is dependent on fishing to repay the boat would venture to buy a fishing boat of that kind.

Furthermore, the price of the finished product in June 1985 may be compared to the price of buying the boat in Sweden and transporting it to Somalia. For the boats to Angola, delivered by MM, the price c.i.f. Angola is about 189000 SEK, which would be less than 1.9 million SRS in June 1985.

Obviously, the devaluation of January 1st, 1985, and the probable further devaluation in the year to come, seriously worsens the conditions for any local production of goods so heavily dependent on imports as GRPC. The low value added can simply not justify local production, unless other benefits than the boat itself are weighed against the costs.

The only way for GRPC to earn foreign currency would be to sell boats to customers in Somalia, who are able to pay in foreign currency. (Genuine export sales are excluded as this is no realistic assumption). Such sales have taken place to international organizations and their projects in Somalia. This market is, however, very limited in numbers and at present marked by hesitation on the part of the potential buyers. They have again postponed their decisions to buy boats from GRPC and are raising doubts as to the efficiency of the boat for their needs (NECFISH and SMP, respectively).

To sum up, it seems justified to make the observation that the 1985 devaluation of the Somali currency was a blow to the hopes of a prosperous future for the GRPC boat market - a blow that turned a growing optimism into pessimism.

On the other hand, the readjustment programme of the economy also includes the reduction of the number of state employees by 60%. State employees will be "resettled" as fishermen and farmers. A growing need for boats, houses and tractors is foreseen. GRPC stands a

good chance of getting - within two years - long-term contracts with building contractors and the new tractor assembly plant for deliveries of plastic roofing material and tractor hard tops. In the view of such arrangements there is certainly a very bright future ahead for the GRPC - in the non-boat markets. Production and sales of water tanks, latrines, roof tiles and tractor hard tops will certainly be profitable. Payments will be in SRS.

A third particularity of the Somali business environment will be noted before **Future Chances of Profits** are summed up in the following section. This aspect regards the availability of basic management skills. In Somalia there is a spectacular lack of industrial management skills. This may be explained by many different factors. One is of course the low level of development of industry and the very short period of industrial experience in the country. Successful businessmen in Somalia are traders or the like, very skilled in commercial activities, but with no industrial experience. A second factor is the relatively low level of management and technical skills in the administration, which in turn may be partly caused by the size of "aid-business" in the country. All key posts of projects are held by expatriate staff. A third factor, is the on-going brain-drain to Arab countries.

In spite of the team's very brief stay in Somalia it has decided to agree with all those who claim that an industrial plant that would be left into Somali hands after a long period of foreign management would very quickly go down the drain.

This conclusion means that the GRPC, where training has led to no real opportunities of replacing the expatriate staff by Somali staff, will depend on foreign management also in the future. Should the Project continue, a major emphasis must be put on the recruitment and training of Somali managers.

12'. FUTURE CHANCES OF PROFITS

It has been noted in this report that the basic composition of the boat product (import dependency) and the local market conditions (too small local fish market, too low world market fish prices, unprofitable fish industry) together make up a structural obstacle to the profitable production of fishing vessels in Somalia.

Consequently, the future chances of a profitable boat production based on existing machinery and the delivery of externally provided services are very small, not to say non-existent. It is thus safe to conclude that an alternative without external services is out of question, considering the limited supply of management skills in Somalia and the cost of such skills, had they been available.

A programme for further investments would therefore have to be based on a different product line. This alternative is discussed below.

To sum up, the main obstacles to profitable production of the 8.5 m fishing vessels are:

- the local fish market cannot be relied upon for an expansion of fishing in Somalia
- world market prices are determined globally and can not be influenced by Somali fisheries
- calculations of the economics of fishing with the 8.5 m boat demonstrate the non-viability of such ventures as long as the currently prevailing conditions are not changed as regards fishing gear, crews, infrastructure and markets.
- existing calculations are relying on prices of fuel which are heavily subsidized, i.e. prices that will not prevail in the future, and on fish prices that the ongoing onshore fish project in Kismayo is not yet able to pay; thus, even if boat prices are

lowered marginally by simplifications of the boat model, such measures will not restore viability of the boat in face of current infrastructural conditions and future fuel prices. Only long-run development of fisheries in Somalia, turning the fishing industry into an economically rational business, will create enough room to pay for the 8.5 m boat.

- all calculations of boat economics are based on the existence of long-term credits to the buyers. No such credits have been given so far in Somalia and the Readjustment programme of the economy includes an undertaking by the central bank not to extend any new credits as part of an effort to cut short on money supply.
- foreign competition will become very keen, considering the price of the local product and the weakness of the presently used Swedish engine. In 1984 a Sri Lanka boat of 8.5 m with a better engine could be obtained at the price of 16000-17000 US\$ c.i.f. Djibouti. This price is lower than the price of the GRPC boat, that takes about the same price as the Swedish boats sold at 165000 SEK plus insurance and freight from Goteborg.
- even if all the known plans of projects in Somalia for boat purchases would be realised and placed at GRPC, it must be remembered that those plans on the part of SMO include plans to be realised in 5-10 years from now. GRPC could produce 275 boats in the five years to come, i.e. about a hundred more than known plans. The factory cannot be run at capacity, i.e. costs per boat produced will rise.
- the alternative of utilizing spare capacity for the production of water tanks, latrine covers and other products is a completely different venture. Profitability is higher as long as the market does

not sleep. This study has not made a market study of tanks or covers, but it may be noted that the market for tanks probably is restricted to the urban areas and soon will be satisfied.

It is concluded that the factory is facing small probabilities of profitable production in the future. Unless unforeseen events happen to the favour of the factory it will probably operate at a loss in its present shape.

On the other hand, it has been concluded that products such as hard tops for tractors and roof tiles, combined with long term contracts with the assembly plant and building contractors, will probably provide a product mix of high returns on invested capital. Payments for these products will be in SHS.

The case of further investments for operations on a larger scale is closely tied to the product mix. As a consequence of the above analysis it is evident that such investments must be based on the existence of new, economically viable models of vessels as far as boat production is concerned. Such models are either small boats of the houri type intended for artisanal fishing for the local market or possibly some lighter boat for beach landing and mechanized fishing. At this point of time the team ignores any such new models from GNPC. Still, most of the obstacles against positive returns in mechanized fishing with the 8.5 m boat will remain also with a better version (the price relations of boats, gears, fuel and fish; the lack of credit facilities; the lack of fishery infrastructure).

It is concluded that the GNPC will be dependent on subsidies in some form (raw materials, management, subsidies to fishery projects etc) also in the future as far as boat production is concerned.

The only way to overcome this obstacle would be to

sell other products at a reasonable profit, exchange SMS against imports of raw materials and continue to develop and produce boats in the quest for a future profitable boat market.

13. FUTURE PROSPECTS

In this section it has become possible to sum up the future prospects of the GRPC and to outline alternative lines of action in order to face those prospects.

What are the conditions for continued production without assistance?

In the assignment for this study the clear-cut question was posed: what are the conditions for continued production in the GRPC factory without any subsidies, i.e. without Swedish assistance or any other grants.

The answer has been given in the preceding pages of this report: the factory will need further subsidies also in the future. This is so because of the nature of the product (imported raw materials), the lack of management and the nature of demand (no self-sustained growth of demand because of poor economics of fishing). The GRPC will need foreign exchange to cover the imports of raw materials and subsidies to cover the cost of expatriate staff for management also in the future.

The conditions leading to a change of this situation are all long-run or very long-run: changing exchange rate for the Somali Shilling, increasing supply of local management skills, changing food habits in Somalia, just to mention a few examples.

This means that favourable conditions for a discontinuation of Swedish assistance - without negatively affecting the activities of the GRPC - will only be met in the long run.

The only exception would be the case where GRPC makes an outright change of policy of the product line: priority to other products than boats in the short run. In that situation the company may well manage to operate at a profit and also continue to develop new boat models

and produce boats to await better market conditions for fishing vessels.

What are the negative effects of discontinued support?

The consequences of a discontinuation of Swedish support, then, are quite straight-forward: shortly after the support is cut out, production at GRPC will come to a halt, partly because of lack of management, partly because of the weak market for fishing vessels.

The major negative effects of a halt to the production of 8.5 m boats are not very serious to Somalia or Somali fishery development: boats will be acquired elsewhere. Instead the biggest cost will be the lack of supply of services and repairs of already existing boats and, above all, engines. In case the production stop also implies the close-down of other activities at the GRPC site, the immediate consequences are that operating boats very soon will be out of operation due to lack of spare parts and repair services.

A withdrawal of assistance is therefore of great damage to the existing fleet of boats in operation, unless measures are taken to provide spare parts and services by other means.

Less tangible negative effects are of course the loss of good-will for the Swedish participants involved, but possibly also the fact that one of the model industrial projects - in the eyes of the Somali authorities and officials of many other projects - of the country will go down the drain. The cost and other negative effects of such a development cannot be estimated.

Alternatives

Given that the Swedish donors have decided to withdraw their support to GRPC (except some further

support during 1986 to facilitate the transformation of the Project) alternatives have been searched for to make possible a continued production in order to avoid the negative effects of a closure of the factory.

The first alternative to investigate was the case of a **joint venture** with the present owner, private Somali capital, the Swedish state and Swedish private capital. This was the first alternative because it was part of the objectives of the rehabilitation of the Project in 1982. This option has become part and parcel of the plan for the future of GRPC presented by MM to BITS in September 1985.

The second possible solution for continued production at the GRPC to be investigated was a **regional project**, i.e. a project supported by African regional organizations. According to a Somalia newspaper that was cited to the team by the Minister of Fisheries a ministerial meeting in Lusaka of the African Preferential Trade Area (PTA) had decided to turn the GRPC factory into a regional centre for training in boat production. Such a decision would certainly lead to regional support to the factory.

Further investigations as to the details of the negotiations of the Lusaka meeting have not confirmed that the decision in question has been taken. For the time being the regional project alternative has to be ruled out, too.

A third solution would be to continue production with the assistance of **other donors**. This alternative is being prepared by joint efforts of the Ministry of Fisheries and the GRPC. Other donors have been approached or are in the process of being approached with requests for support to the company. Such requests may also be of an integrated nature, i.e. the GRPC is only one of many elements of a broader programme for fishery development.

At the time of writing no definite outcomes of the

efforts to mobilize other donors are known. Indirectly, however, some major donors have already committed themselves to support the GRPC through their development cooperation with Somalia. A number of donors, such as the World Bank, ADB, Germany, Italy and the USA, are presently supporting Commodity Import Programmes (CIP), whereby Somalia is able to import goods. Most of these CIP's are open for imports of inputs to fishery development, including raw materials to the GRPC. This opportunity is already operational through the World Bank. It may become operational also through other donors.

In case Somalia requests to use parts of the CIP's for the imports of raw materials to GRPC such a request will fall within the boundaries of areas given priority by some donors (rural development, including fisheries). In that respect Somalia is from now on able to finance its raw material purchases from other sources than the Swedish import support. This will in some cases mean that the raw materials will be bought from other countries than Sweden.

It has been confirmed also by GRPC that the company is able to exchange as much SHS it can earn for the imports of raw materials from the CIP's of the World Bank.

If raw materials are financed from the CIP's the remaining need for support is limited to the management contract, i.e. around 2.3 million SEK annually.

This solution presupposes, however, that the GRPC operates at a profit and thus earns a surplus of SHS. This is, anyway, a minimum requirement to be demanded of the company for continued support or for a joint venture. It probably requires increased production of other products than boats.

14. CONCLUSIONS AND RECOMMENDATIONS

Continue or withdraw?

It has been shown that the boat production of the GRPC is in need of continued subsidies in order to survive. Such subsidies may come from external financing or from surplus generated within the company from other products than boats. Based on other more profitable products the company will be able to operate at a profit from 1986 on, given that no further major changes of the economic environment will affect the firm negatively.

It is necessary, however, that the GRPC is supported by foreign management services until a Somali management has been recruited and trained. Any continued support must therefore be tied to the effect that such management must be produced. Another major problem in the short run, even if profitable production is achieved, is the need for convertible currencies for the purchase of raw materials, spares, etc.

The latter problem ought to be solved locally, thanks to recent increases in the global donor commitments. Somalia is able to obtain the currency needed for raw materials from ongoing CIP's. It is probable that Somalia will not be able, within the time schedules foreseen, to absorb the total amount of CIP funds presently available, i.e. there is a need to identify further needs. The raw materials for the GRPC fall within sectors approved by various CIP's.

Given that the company will operate at a profit (in SHS) by diversifying its product line it should consequently be able to acquire the foreign exchange needed.

There are, therefore, good reasons to assume that foreign support in terms of foreign currency for the purchasing of raw materials and spares will not be

necessary in 1986.

The remaining support needed for the management service contract cannot be cut without negative consequences for the GRPC, unless BITS is replaced by some other donor. No other alternatives have turned out to be viable.

The plans presented by MM for the production in 1986-87 and the establishment of a joint venture in 1988 seem to be the best alternative that will, first, secure the future existence of a model firm and the continued services to, and repairs of, the existing fleet and, second, safeguard some lasting effects of the benefits created up to the present moment by Swedish assistance to the Project.

It is therefore concluded that the most advantageous way of striking an acceptable balance between conflicting Swedish objectives in this case, is the creation of a joint venture with Swedish participation and, thus, the continuation of Swedish assistance for another two years until such a new, jointly owned firm has been created.

Recommendations

The first recommendation concerns the support for imports of spares and raw materials to the boat production Project:

- it is recommended that the donor requires of the GRPC to manage on its own the acquisition of convertible currencies from its surplus of SHS with the help of the owner and the various CIP's in the country; further support to the purchase of raw materials and spare parts should not be given.

The second recommendation regards the finalization of the support to the boat production as such:

- it is recommended that a final grant for six months of management services from January 1, 1986, to July 31, 1986, is extended to the Project along the lines earlier indicated by BITS.

The third recommendation concerns practical details in the finalization of the support to the boat production project and the transfer to a new company:

- in the contract for the final grant to the boat production project it is recommended that there is an obligation for the company to present an independent auditor's report of the statement of accounts of July 31, 1986 as well as an improved model for cost accounting in the company; further, an obligation for the supplier of the management services to undertake, during 1986, to recruit and train Somali personnel for top management functions; and finally an obligation for the supplier of the management services to present to the joint venture company to be, a complete description of the manufacturing process, the organization of the company, as well as the network of its suppliers and customers, locally and abroad.

The fourth and fifth recommendations are in support of the creation of a joint venture for a company producing a broad line of glass fibre reinforced plastic products in Somalia:

- it is recommended that the GRPC receives support for the purchasing of management services for latter half of 1986 and for 1987, with the purpose of allowing the GRPC and MM in cooperation with the Somali state to diversify the product line into a

profitable product mix (the diversification may necessitate some support to exceptional investments in the product line) and to prepare and carry out the transformation of the company into a joint venture with private Somali capital, Somali state capital, Swedish state capital and Swedish private capital.

- this transformation presupposes a feasibility study for the joint venture, planning of the new company and a number of practical implementations efforts; it is recommended that the costs of those activities are partly included in the support to the GRPC from July 1, 1986.

ANNEX 1: LIST OF PERSONS MET (Alphabetical order)

| | |
|---------------------------|--|
| Mr. Adan Mohamed Ali | Minister, Ministry of Fisheries |
| Mr. Ahmed Ali Saney | Regional Officer, Kismayo, Ministry of Fisheries |
| Mr. Ali Sheikh Mohamed | Consul General of Denmark, Finland, Norway and Sweden, General Manager Somali Prefab BITS |
| Mrs. Irene Andersson | BITS |
| Mr. John F. Arrundale | Managing Director, SMP |
| Mr. Richard Chamberlain | General Manager, NECFISH |
| Mr. Jørgen R. Christensen | Master Fisherman, SMP, Kismayo |
| Mr. Elaabe | Permanent Secretary, Ministry of Planning |
| Mr. Bertil S. Georgsson | Statistics Sweden, Ministry of Planning |
| Mr. Amund Haarde | GRP |
| Mr. Dennis A. Hibberd | Accounting Adviser, SMP, Kismayo |
| Mr. Ibrahim Elme Bulale | GRP |
| Mr. Ingvar Karlén | General Director, BITS |
| Mr. Ranson Larsson | GRP |
| Mr. Lars Myrén | Managing Director, MM |
| Mr. Bengt Oberger | Industry division, SIDA |
| Mrs. Gunilla Olofsson | BITS |
| Mr. Muridi Ali Salah | GRP |
| Mr. Omar Ahmed Omar | Governor, Central Bank of Somalia |
| Mr. Said Ahmed Yusuf | Director, Economic Research Dept., Central Bank of Somalia |
| Mr. Salah Ahmed | Chief Engineer, SMP, Kismayo |
| Mr. Adrian Sanders | Chief Technical Adviser, CDP |
| Mr. Bengt Sjösten | GRP |
| Mr. Håkan Widman | General Manager, GRP |

... and Members of the Fishing Cooperative in Kismayo; all other staff of GRP

ANNEX 2: VIABILITY CALCULATIONS

In this annex we present the results of three economic viability calculations for the GRPC 8.5 m boat. They were independently made by three different organizations, i.e. the GRPC, the SMP and a World Bank mission. Together these calculations give examples of the current economics of the boat and illustrate some differences in assumptions and methods of calculation. Although none of the three examples could be said to be more "correct" than the other, the comparison is interesting in the sense that all three arrive at the same basic conclusion.

The first example has been presented by the GRPC in March 1985. It is basically a simple cash flow analysis over two years for the buyer of a boat.

The assumptions made are summarized in the following table (SHS):

| | |
|-------------------------|---------|
| Purchase price | 2000000 |
| Cash deposit | 200000 |
| Loan | 1800000 |
| Repayment time in years | 7 |
| Interest rate in % | 14 |
| Aver. daily catch in kg | 200 |
| Number of days/year | 180 |
| Aver. price/kg fish | 25 |
| Fuel price/litre | 13 |

Under the above assumptions the cash flow during the first two years takes on the following values:

Annex 2.2

| Cash flow projection | Year 1 | Year 2 |
|----------------------------------|-----------|---------|
| Investment cost | 200000 | 0 |
| Debt service | 509 143 | 509 143 |
| Insurance | 40000 | 40000 |
| Fuel | 74880 | 74880 |
| Lubrication | 5000 | 5000 |
| Spare parts | 30000 | 30000 |
| Fishing gear repair & renewal | 30000 | 30000 |
| Total outflow | 2 689 023 | 689 023 |
| Gross income | 900000 | 900000 |
| Municipality tax | -45000 | -45000 |
| Total inflow | 2855000 | 855000 |
| Net cash flow | 165 977 | 165 977 |

The financial rate of return over the period of repayment becomes negative in this example. It may be noted that no costs for the crew are included in the calculation, meaning that the projected cash flow has to be shared between the owner and the crew. Based on this example the GRPC arrives at the conclusion that the boat is not economically viable for the private fisherman.

The calculation of the SMP is of course geared towards the viability for the SMP of investing in the purchase of a fleet of 8.5 m boats. Its calculation is made on the assumption of a decision on the part of the SMP to increase its fleet of GRPC boats.

Starting out from a recommendation indicating that the boats were viable in July/August 1984 at a basic catch of 150 kilos of fish per boat and day, the SMP report from the spring of 1985 adds that another estimate

Annex 2.3

puts the break-even catch at 625 kilos per boat and day.

Using the example of a fleet of 20 vessels the SMP assumes that it could increase the throughput at the SMP cold store by 600 tons per year (Somali crew), at worst, or by 2400 tons per year, at best (Chinese or Kenyan crew).

The assumptions used in the SMP paper as regards the Somali crew include: 200 days at 200 kilos per day; crew wage at 3002 SMS per day; supplies 400 SMS/day and sales at 6005 per ton. This gives an annual gross surplus of sales over running costs of 1992000 SMS. After deduction of depreciation and maintenance calculated at a boat price of 1721250 SMS and deduction of cost for nets the "boat surplus" per year becomes 637150 SMS, corresponding to approximately 192 \$ per ton landed.

This surplus is of course sensitive to variations of the fish price: at a price of 400\$ per ton the operation would be a loss. If the annual catch is assumed to be 30 tons (150 kg/day), the "surplus" per ton is reduced to 56\$.

The SMP paper arrives at the conclusion that the purchase of GSF vessels would not be commercially prudent. Experiments with new fishing gear, modified vessels and Chinese or Kenyan crews are needed to make a final decision. In the meantime the KFW grant for boats ought to be withheld.

In a World Bank report from April 1984 there is a cash flow projection for the operation of a eight-meter motorized fishing boat. A financial rate of return of 23% for the fisherman is arrived at, and assumed to be good enough to induce individuals to invest in the boat.

The projection is based on a boat price (including fishing gear) of 340000 SMS, initial investment of 10%, 12% interest rate and repayment in eleven years including a one year grace period. Assuming a catch of 135 kilos per day and 180 years of fishing and the total catch sold at 7.5 SMS/kg the calculation includes fuel at 6.63 SMS per liter, ice, insurance, crew share and some miscellaneous

ANNEX 2:4

cost.

In order to update the 1984 World Bank projection to March 1985 the following assumptions have been changed:

| | |
|-------------------------|---------|
| Purchase price | 1500000 |
| Cash deposit | 150000 |
| Loan | 1350000 |
| Repayment time in years | 10 |
| Interest rate in % | 14 |
| Aver. daily catch in kg | 135 |
| Number of days/year | 180 |
| Aver. price/kg fish | 25 |
| Fuel price/litre | 13 |

Note that the catch per day has been improved (and assumed to be 100% from year one) as well as the fish price. On the other hand the financial conditions are less favourable. The prices of the boat and of fuel have been set at current rates, i.e the fuel price is still the subsidized price valid in Somalia in June 1985. Insurance cost has finally been adjusted to the level used by the GRPC in their estimates.

The result of such an exercise is the same as the other calculations: after the devaluation and the corresponding changing price relations the boat is no more viable under reasonable assumptions. The net cash flow becomes negative in the first year, as well as the financial rate of return over the repayment time.

It has been demonstrated that prevailing price relations between inputs and outputs, in combination with reasonable assumptions on catches, lead to the same result in three independently made calculations. Two of these were made from the point of view of the fishermen/owners and one from the point of view of a cold store project.

ANNEX 3: LIST OF ABBREVIATIONS

| | |
|---------|---|
| ADB | African Development Bank |
| ADF | African Development Fund |
| BITS | The Swedish Commission for International Technical Cooperation |
| CDP | Coastal Development Programme |
| DANIDA | Danish International Development |
| GRPC | Somalia Glass Fibre Reinforced Plastic Products Company |
| ICS | ICS Interconsult Sweden AB |
| KFW | Kreditanstalt für Wiederaufbau |
| MI | Mölnlycke Marin AB |
| NECFISH | North East Coast Fisheries Enterprise |
| FTA | Preferential Trade Area |
| SEK | Swedish Kronor (1 SEK=10 SHS) |
| SIDA | The Swedish International Development Authority |
| SHS | Somali Shillings |
| SMP | Somali Marine Products |
| ToR | Terms of Reference |
| UNCDF | United Nations Capital Development Fund |
| US\$ | United States Dollars (1 US\$= 84 SHS) |
| VID | Volvo International Development Corporation |

Note: The exchange rates given above reflect the approximate market rates valid at the beginning of June 1985 between the three currencies. Since then those relations have changed: US\$ has fallen in relation to SEK, and SHS has fallen in relation to US\$.

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FISHING VESSELS IN SOMALIA

The SIDA-supported boat factory in Somalia is functioning and has a positive impact on the surrounding economy. But production suffers from the low level of development of the Somalian fishing sector. Also there is a need to develop local management capacity.

These are the main findings of this evaluation which was carried out by the two consultants *Jan Valdelin* of Interconsult, economist and team leader, and *Staffan Larsson* of the Swedish National Board of Fisheries.

Sweden's bilateral development co-operation, handled by SIDA since 1965, comprises 17 program countries: Angola, Bangladesh, Botswana, Cap Verde, Ethiopia, Guinea-Bissau, India, Laos, Lesotho, Mozambique, Nicaragua, Sri Lanka, Swaziland, Tanzania, Vietnam, Zambia and Zimbabwe.

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