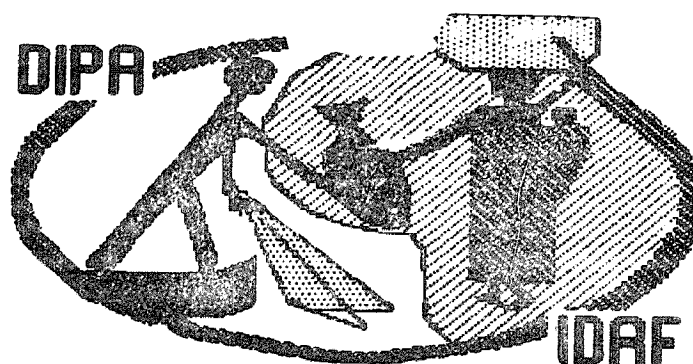


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February 1990

REPORT OF THE FOURTH IDAF LIAISON OFFICERS MEETING

DAKAR - SENEGAL 21 - 23 NOVEMBER 1989



February 1990

Report of the
Fourth IDAF Liaison
Officers Meeting
Dakar - Senegal
21 - 23 November 1989

Programme de Développement
Intégré des Pêches Artisanales
en Afrique de l'Ouest - DIPA

Programme for Integrated
Development of Artisanal
Fisheries in West Africa - IDAF

GCP/RAF/192/DEN
GCP/RAF/198/DEN
GCP/RAF/197/NOR

With financial assistance from Denmark and Norway, and in collaboration with the Peoples Republic of Benin, the Fisheries Department of FAO is implementing in West Africa a programme of small scale fisheries development, commonly called the IDAF Project. This programme is based upon an integrated approach, involving production, processing and marketing of fish, and related activities ; it also involves an active participation of the target fishing communities.

This report is a working paper and the conclusions and recommendations are those considered appropriate at the time of preparation. The working papers have not necessarily been cleared for publication by the government (s) concerned nor by FAO. They may be modified in the light of further knowledge gained at subsequent stages of the Project and issued later in other series.

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The first IDAF liaison officers meeting was held in Cotonou on May 11-15, 1985. The second meeting was held in Freetown on 11-14 November, 1986 and the third meeting was held in Cotonou on 2-4 December, 1987.

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1. OPENING

The meeting at the Hotel Indépendance, Dakar, was convened for 0930 hours on Tuesday 21st November. The chairman of the Third Liaison Officers Meeting, Mr. G. Mensah, Director of Fisheries in the Ministry of Rural Development and Cooperative Action of the Peoples Republic of Benin, was in the chair. After a few words of explanation of his position it was proposed that Mr. H. Diop, Director of Oceanography and Marine Fisheries in Senegal, be the new chairman, Mr. Jean Paul Sarr, Director of Fisheries in Guinea be the vice-chairman, and Mr. M. Armah, Deputy Director of Fisheries in Ghana be the rapporteur. The participants (appendix 1) at the meeting agreed to these proposals and proceeded to follow the agenda (appendix 2).

The new chairman welcomed participants to Dakar, and recalled the importance of the programme to the region. The programme coordinator for IDAF then gave a short address of a mainly administrative nature. It was followed by a report of the third liaison officers meeting, and a report on IDAF Project progress.

The meeting was officially opened at 1530 hours by Mr. Mbaye Diouf, Minister responsible for Animal Resources in the Ministry of Rural Development for Senegal, in the presence of the FAO Country Representative, Mr. M. T. Mukendi.

2. REPORT OF THE THIRD LIAISON OFFICERS MEETING

The rapporteur of the third liaison officers meeting, Mr. A.C.V. Forde of Sierra Leone, gave a summary of the meeting held on 2 - 4 December 1987 in Benin. The participants were Mr. Afian Bokouay Joseph and Mr. Carel Zwollo from Cameroon, Mr. Nfamara Dampha and Mr. Ousman Drammeh from The Gambia, Mr. E.G. Sagay from Nigeria, Mr. Boubéri from Côte d'Ivoire, Mr. Gambe Sampoguilli from Togo, Mr. Armah from Ghana, Messrs Mensah, Idriz and Affoyon and Mrs Pfeiffer from Benin, Mr. Dembos Sousa from Angola, Mr. Nkogho-Eyi from Gabon, Messrs Forde and Fergusson from Sierra Leone, Mr. Chhun from Senegal, Mr. Bitoumba from Congo, and Messrs Everett, Sheves, Johnson and Maakonsen from FAO-IDAF Cotonou. Messrs Eacle and Cecil were observers from CIDA-Canada.

The summary recommendations were that (a) IDAF make efforts to make itself better known throughout the region, (b) the exchange of persons, documents, reports and articles in the IDAF newsletter be intensified, (c) IDAF should become more involved in the improvement of statistics at the artisanal level, and (d) more work be carried out on availability of credit and capital formation amongst small-scale fishermen.

3. REPORT OF IDAF PROGRESS

In introducing the paper "Progress Report on the Programme for Integrated Development of Artisanal Fisheries in West Africa" the programme coordinator reiterated the main purpose of the project which is to help countries develop their artisanal fisheries, so as to derive from them the maximum economic and social advantages. The secondary purposes are to (i) improve effectiveness of artisanal fisheries development projects, (ii) propagate an integrated approach to the development of artisanal fisheries emphasising participation by the community in the planning for local projects, (iii) implement a model development project—currently project GCP/RAF/198/DEN in Benin, (iv) maintain a system of fishery development or extension units in different countries, and (v) increase technical competence through exchange of specialists among African countries.

Within the regional component (GCP/RAF/192/DEN) the coordinator is supported by a fishing technologist, an expert in community development, and the socioanthropologist and senior adviser in institutions and project planning (the latter two financed by GCP/RAF/197/NOR). There is also an associate professional officer, assisting the socioanthropologist. Staff of the model project (GCP/RAF/198/DEN) consists of the chief technical adviser, and an associate professional officer in fishing technology.

IDAF's associated projects include the model project in Benin, the Lagune Aby project in Côte d'Ivoire, the Shenge project in Sierra Leone, the Kaback project in Guinea, and the Yeji project in Ghana. In the five projects there is a special commitment to integrated development of artisanal fisheries at the village and community levels.

Since the third IDAF liaison officers meeting significant progress had been made with initiating the projects at Kaback and Yeji. In addition much closer links had been forged with many small scale fishery projects throughout the region. Reports on many of these projects, as well as on the model project in Benin, are given in the appendices.

IDAF had organised numerous exchange visits for technical staff within the region to observe specific developments and initiatives in the field of small scale fisheries. This exchange of persons was complimented by preparation, distribution and exchange of documents, reports etc in addition to the newsletter. Technical meetings on various subjects had also been organized ; the most recent being on craft, propulsion and fishing gear.

A wide ranging discussion followed presentation of the report on IDAF project progress. There was concern about the sustainability of government interventions in this field, given the fragile nature of the various economies and the parlous state of government revenues. A question was raised about rationale for choosing locations and countries for IDAF work, and why some countries had received less attention than others. In general the reason was that due to shortage of human and financial resources IDAF could not work as intensively as it would wish in all countries of the region. A question was posed on monitoring and evaluation and it was observed that every possible attention was given to trying to improve this important activity. The newsletter was appreciated, and it was hoped that there would be more contributions from readers in the region, over future months. It was announced that Liberia would receive a mission to discuss artisanal assistance, shortly, and that the situation concerning Senegal fishermen, repatriated from Mauritania, would be kept under review.

4. REPORTS OF ARTISANAL DEVELOPMENT

The Lagune Aby Project, Côte d'Ivoire

The project progress was described, as well as significant developments such as the effect of closing the fishery to certain types of gear. This allowed fish stocks to recover, and indeed the emphasis is now given towards management of the fishery. There had been problems with disbursement of the funds allocated for credit, and in fact this component had been underutilised. The ice plant had been installed and ice was being produced, but there was a general reluctance on the part of local traders to use ice because the price of fish sold on ice was often lower than the price of fish sold fresh. Possibly this was because of a problem with consumer awareness, where the consumer anticipated a reduction in quality of the fish from icing/freezing. However the project had taken traders to Abidjan to see that iced fish was quite normally used in big centres, and that it deserved to be sold at a high price.

A discussion followed the description of acadjas (brush park fisheries) and their introduction. These were being introduced gradually to Aby, in the form of bamboos and first results had been quite satisfactory. Nevertheless there was realisation that the extent of these implantations may have to be controlled ; and an account of the problems and advantages of acadjas in the Benin lagoons was outlined.

The Benin Model Project

The national director of this project described the work recently undertaken. The fishermen training element aimed to teach fishermen new fishing methods and the use of echosounders and compasses in order to increase production during low fishing periods and increase the income of fishermen. Training topics were diversified and comprised seamanship, navigation, mechanics and fishing methods. Fifty one fishermen had been trained in engine maintenance, 116 fishermen trained in fishing techniques, as well as in navigation. The result of the training was noticeable in handlining and bottom set gillnetting where nine groups employing sixty trained fishermen now used echosounders.

For promoting alternative economic activities, particularly amongst women, the project had been helping women initiate market gardening, as well as introduce pig breeding and rearing. These activities had only been a partial success because of problems like disease and lack of markets for some of the produce. There had also been a problem with reimbursement of credit which had been granted for market gardening.

Twenty eight wells were dug, but quickly a number became too polluted for use in drinking. Two tracks were constructed and these had reduced isolation in a number of villages. The model project had also been able to help with improving transport on the lagoons.

Village development committees had been established to provide a link to the project and assist villagers identify and find solutions to their various development needs.

Direct funding of the project by DANIDA was now terminating, but it was hoped that the regional IDAF programme might be able to assist continuation of some activities.

The Petite Côte Senegal Artisanal Project

The project for development of fisheries on the Petite Côte (Dakar to Joal) in Senegal was then described and discussed. The project consist of (i) creation of fishing centres at Joal, Mbour (Mballing), and Rufisque, (ii) arranging a credit line for fishermen and professionals for acquisition of gear and

material, and (iii) the study and trial of improved canoes. The plan is to introduce purse seines, motors and canoes, so that over 24,000 tons of additional fish could be landed. It was also foreseen that insulated trucks would be purchased with credit from the project. The loan from the African Development Fund was about US \$ 7 million, and the Senegal Government was also contributing. The line of credit was handled through the CNCA, Caisse Nationale de Crédit Agricole. Although the project was signed by all parties concerned in April 1986, the field activities only really started in mid 1988.

By October 1989 it was reported that loans had been made to 41 interest groups (GIE - Groupement d'Intérêt Economique) of which most were groups of fishermen. The total loan value reached 200 million CFA francs.

Questions and discussions were mainly about the use of credit. It emerged that there must be guarantors, and that life assurance of the loanee must be arranged. There was also need to try and blend in traditional credit systems.

Fisheries Pilot Project, Tombo, Sierra Leone

The Fisheries Pilot Project Tombo is one of the longest existing community fisheries centres, being established in 1980, with German Federal Republic funds, in Sierra Leone. The project is now entering its fifth phase for the period September 1989 to August 1993. The three main components of the project comprise technical aspects covering improved craft, motors and their maintenance, commercial aspects involving a retail store selling gear, engines and spare parts, and the social and community development aspects involving improvement of village infrastructure such as water supply, sanitary conditions, promoting self-help groups and village administration.

A loan scheme was introduced to assist fishermen introduce new motors, boats and gears, but these introductions, and the loan schemes, had not been a complete success. The project was actively concerned with trying to reduce deforestation in the area caused by cutting wood for fish smoking. A village development board was established to run the administrative and development programmes of the village. These activities draw on some of the profits of the retail store, and additional revenues raised from market and wharf dues. There was discussion about setting up an innovation centre, to handle the different enterprises established, and to serve the fishing community of Tombo as well as other fishing villages.

Since 1980 it was estimated that the population in Tombo had more than tripled, putting a considerable burden on community services. In the discussion following this presentation it was acknowledged that one of the problems of this sort of project is

that if it is successful, with the extra money coming in various forms, there is a big pull of persons from outside, with the population ultimately going up, and thus reducing the possibilities for overall improvement in living standards.

There was also an important point raised about the legitimacy of an organisation such as the village development board working independently of a regional council set up in accordance with local government procedures.

The Pilot Project for Integrated Development of
Artisanal Fisheries at Kaback, Guinea

This FAO/UNDP project was identified and formulated by IDAF and initiated in 1988. The objective is to assist 500 fishermen and their families on the Kaback Island to increase productivity and the benefits from activities linked to artisanal fisheries. It also aims to support other income generating activities, and to render, in particular, assistance to women. As a pilot project the activities involve assistance to fishery development units which may be started in other parts of the country.

The project had received fishing gear and material financed by the European Development Fund, and Canada, and had set up the structure required to manage distribution of material on credit. Specific consultancy work had been provided by IDAF to obtain socioeconomic background data and information, assist improved gear technology and processing techniques. A workshop assured repair of outboard motors.

Some problems had been the non convertibility into hard currency of revenues obtained from sale of material, to ensure continued importation. It had also been found that some of the material was inappropriate to the fisheries needs. It had been difficult to recruit local staff with appropriate skills, knowledge, and experience.

The project covered the communities of Matakang, Khunyi and Khunimodia. Each community's requirements are slightly different, and the project will take these needs into consideration during its period of expansion. Further orders of gear and spare parts will be made. Particular support will be given to identification, planning and execution of microprojects initiated by the communities in collaboration with the fishery development unit.

Yeji Project, Ghana

Yeji is located on the western side of Lake Volta. It had long been an important place for landing and marketing dried fish. The government wanted to create more centres for marketing fish and supporting fishermen, after setting up the Kpandu Torkor centre at the southeast of the lake in 1975. It planned that Yeji be the next community fishery centre.

IDAF formulated the project and drew up the document and budget at the request of UNDP Accra. Before approval, however, the budget was reduced, and it might be difficult to cover all the costs of construction work judged to be necessary. Discussions were going on to find a solution to this temporary problem.

Following this presentation a discussion took place on the role of a community fishery centre and a fishery development unit ; it was noted that the concept was generalised and flexible, and any attempt to lay down guidelines for operations would be difficult, since conditions varied so much between, and within, countries.

Shenge Project, Sierra Leone

The Shenge Project had been described in some detail in previous liaison officers meetings. After a preparatory phase, and reformulation, the project had now achieved a successful rhythm of activity. Activities involved technology development, for craft, gear and processing, womens activities and general income generating initiatives throughout the community, a retail store, and support to the cooperative movement. Now a U.N. Capital Development Fund project was at the start of execution, and a lot of collaborative work will be required by many agencies to ensure a successful result. Much of the inputs will involve road improvement (to Moyamba), water facilities, health and educational centre, provision of drinking water through wells, etc.

Attention was also drawn to the importance of mangrove resources and the need for their optimal utilisation. Also, much concern was expressed over the way in which industrial trawlers came so close inshore, to disturb artisanal fishing, and possibly overexploit the resource.

Integrated Artisanal Fisheries Development Projects in The Gambia

Like Sierra Leone, The Gambia had been implementing an integrated artisanal project since 1980. The community fishery centre of importance, at Gunjur, was part of the European Development Fund project "Artisanal Development on the Atlantic Coast". This project had since been extended, and another centre was to be built at Tanji.

Marketing facilities were to be improved, and improved gear and craft introduced. In addition, a small landing jetty was to be built. U.K. volunteers were assisting community development and income generating activities. The project planned to plant trees for fuelwood. A 3 ton per day ice plant was to be built at Tanji. Windmill well pumps were to be installed for provision of water for domestic and general supplies, and there was a revolving loan fund scheme component.

The Kemoto and Tankular project was funded by Italy along the estuary. Both villages were between 150 and 200 km from Banjul by road. Very simple fishing operations went on, and there was only one motorised canoe between the two villages. The project aimed at meeting the most elementary needs for food and safe water supplies for the two villages and to transform the local fisheries from their subsistence levels into truly economic activities capable of generating employment opportunities and raising the per caput earnings of the fisherfolk.

A community fisheries centre (but not including an ice plant) was built in each village, and so was a borehole to provide water for domestic and fisheries purposes. The project also provided two insulated vehicles for fish marketing purposes. Unfortunately the Ruggerini diesel outboard was introduced and this has proved quite inadequate to the demands.

5. CONCLUSIONS AND RECOMMENDATIONS

Participants at this IDAF liaison officers meeting were more numerous than at previous meetings and this partly reflected the increase in activity of IDAF and its influence in the region. Many projects now were integrated, and almost every country had such a project financed by external aid.

Participants reviewed the work of the IDAF regional project and expressed satisfaction with its progress. The meeting approved the various priorities given by IDAF to different social and technical aspects of small scale fisheries. Appreciation was expressed to the financing agencies DANIDA and Norway : DANIDA

was warmly thanked for ensuring a second phase to the project, and participants unanimously requested Norway to support further activities in 1990 and beyond. The government of Benin was also thanked for providing the headquarters.

The coordinator requested that consideration be given to the establishment of a steering committee or supervisory board, but no participant expressed a desire to change the present format for reviewing and setting the framework for future IDAF project priorities through the mechanism of the IDAF liaison officers meetings. It was accepted however that a representative of each agency which financed IDAF would be invited to the next liaison officers meeting (probably at Cotonou in not less than a year's time).

There was general agreement that IDAF usefully could look closely at financing and credit arrangements for assisting the subsector. The matter might be looked at in more detail either at a separate technical meeting, or during a day specifically set apart for this subject in association with the next liaison officers meeting.

Some participants and observers felt that more attention should be given to managing the resource and protecting the zone reserved for artisanal fishermen nearshore. There was a need to reduce conflicts between industrial and artisanal fishermen.

The majority of participants expressed appreciation for IDAF assistance in the dissemination of information through reports, documents and the newsletter, as well as assistance with attendance at technical meeting. There was agreement that local experts and knowledge be used where possible. One participant saw advantages in setting out a yearly work plan for IDAF actions in order to increase its efficiency and collaboration with the countries concerned, and several participants stressed the long term nature of development with artisanal fisheries, if possible linked to analysis and evaluation of progress (so that decisions could be made, when necessary, to take into account changing situations).

The chairman concluded the meeting by drawing attention to the need to sustain artisanal development over many years and emphasized the importance of the subsector in providing protein for the population, and where possible to supply high value fish for export. He thanked IDAF for choosing Senegal as the venue for this liaison officers meeting.

Appendix 1List of participants

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Appendix 2Agenda

Tuesday 21st November

- 0930 Informal opening
 Word on administration aspects
 Agreement on Chairman and Rapporteur
- 1000 Report on the third IDAF liaison officers
 meeting
- 1030 Report on progress of the IDAF Project
- 1530 Official opening by the Minister for
 Animal Resources in the presence of
 the FAO Country Representative
- 1600 Reports on projects for development
 of artisanal fisheries

Wednesday 22nd November

- 0900 Reports on artisanal fishery development
 projects
- 1200 Visit to field/beach activities
 Kann, Yoff, Thiarye

Thursday 23rd November

- 0900 Continued reports on artisanal development
 projects
 Followed by discussions
 Future of liaison meeting, supervising
 body, links to IDAF countries and
 agencies involved
 Conclusions and recommendations
- 1630 Final adjournment

Appendix 3

Progress report on the Programme for
Integrated Development of Artisanal
Fisheries in West Africa

A. Background

The Programme for Integrated Development of Artisanal Fisheries (commonly known as the IDAF Project) consists of component GCP/RAF/192/DEN to cover the regional activities, GCP/RAF/198/DEN to cover the model project component in Benin, both financed by Denmark, and GCP/RAF/197/NOR financed by Norway in support of the regional component. The Project is executed by FAO.

The Project covers mainly the maritime artisanal fisheries of West Africa, which are found in coastal countries that are members of the FAO Committee for Eastern Central Atlantic Fisheries (CECAF). The CECAF Region extends from the Straits of Gibraltar to the Zaire River.

The main purpose of the Project is to help the West African countries to develop and manage their artisanal fisheries, so as to draw from them the maximum economic and social advantages, thanks to an approach centred on the community and aimed at improving productivity and increasing the well-being and autonomy of the fishermen and all those who work in this sector. The secondary purposes are to :

- a - improve effectiveness of artisanal fisheries development projects
- b - propagate an integrated approach to the development of artisanal fisheries emphasising participation by the community in the planning of local projects
- c - implement a model development project - currently project GCP/RAF/198/DEN in Benin
- d - attempt to set up and maintain in each country a system of fishery development units, and
- e - increase technical competence through exchange of specialists among African countries.

Headquarters is at Cotonou, where the Peoples Republic of Benin kindly provides office space and local support. The project became fully operational on signature of the project document, by all parties concerned, in December 1983.

The first IDAF liaison officers meeting was held at Cotonou in May 1985, where project progress was discussed, and future priorities were determined. The second liaison officers meeting was held in November 1986 in Freetown. The third liaison officers meeting was held in Cotonou in December 1987.

A full report on IDAF project activities was submitted to the Seventh Session of the CECAP subcommittee on development held in Douala in December 1988. Project activities were discussed and approved.

Within the regional component (GCP/RAF/192/DEN) there is a coordinator, an expert in womens activities and a gear technologist supported by consultants, and the socio-anthropologist and senior adviser in extension and project planning (financed by GCP/RAF/197/NOR), and one associate expert.

Staffing of the model project (GCP/RAF/198/DEN) consists of the chief technical adviser and is fully supported by counterpart staff from the Department of Fisheries in Benin.

Staff of both components have received considerable assistance from the various services of the FAO Department of Fisheries in Rome, FAO country representatives, and Departments of Fisheries in the region.

The IDAF Project's work plays a key role in the follow-up to the technical discussions and recommendations of the FAO World Conference on Fisheries Management and Development which was held in Rome on 27 June - 6 July 1984. It is in fact an integral part of the second programme of action which "is the development of small-scale fisheries, based on an integrated approach, and the improvement of the socio-economic conditions of communities of artisanal fishermen and their families. It will promote the skills, capacities and potentials of fishing communities, through their active involvement and participation in the planning and implementation of management and development activities. Attention will be given not only to the technologies and skills involved in harvesting, handling, processing and distribution but also to economic and social considerations including education, health and infrastructure".

The project financing for another five years was formally approved in January 1989, by DANIDA, and it is hoped that the Norway government will also approve further assistance in 1990 and beyond.

B. Achievements

1. The effectiveness of artisanal development projects

Since the third IDAF liaison officers meeting in Cotonou in December 1987 the regional component has kept in close touch with artisanal fishery projects, financed both bilaterally and multilaterally, and with activities of government departments, so that effectiveness of projects throughout the region can in time be assessed and improved. Frequently the staff has been asked to advise on specific matters.

In cooperation with nutrition service staff of FAO Rome IDAF prepared and organised a workshop held in January 1988 at Cotonou about "Nutrition and Artisanal Fisheries". The seminar was followed in May by a Netherlands supported mission to assess potential for initiating a region wide project to cover "Food Security in Fishing Communities". It is probable that this will be undertaken by a Norway financed project with similar objectives, but on a global basis.

Close contacts have also been maintained with the Sassandra (Côte d'Ivoire) development, at Harper (Liberia) and at Cape Verde, in particular Santo Antão.

In response to a request from the Government of Gabon the UNDP office in Libreville requested IDAF to assist more detailed formulation of a project financed by UNIFEM, the United Nations Development Fund of Women, to help women fish processors of the inland waters near Lambaréné. This was carried out in May, and the main work was undertaken in August and September 1988.

The socio-economist/anthropologist undertook another mission, following two in 1988, to Gabon to join a UNIFEM/CIDA team of consultants for a field evaluation of GAB/87/W01 as part of an overall assessment of the Canadian funded project RAF/86/W04 : Women and Food Technology in Africa. The project has been executed through the state secretariat for womens affairs in the Lambaréné region. Mr. Haakonsen made proposals for continuation of project activities in various forms so that priority needs of fishing communities could be satisfied.

The IDAF Project was requested to help formulate a project for possible UNDP funding specifically oriented towards artisanal development in Guinea Bissau. The mission also involved a visit to Cape Verde where there is much activity in the artisanal subsector and an FAO/UNDP input to the institution specifically responsible.

An FAO executed project to strengthen support to the institutions involved with artisanal fisheries in Nigeria has received a number of visits over the last two years. It is expected that contacts will be increased when the new FAO/UNDP project to support marine artisanal fisheries gets fully underway. Activities will be concentrated at Uta Ewa (Akwaibam) and at Koko (Bendel State).

UNDP in Zaïre asked FAO to execute a fishery project with an integrated development approach, mainly for the inland waters, and IDAF financed a mission to draw up a more detailed document and work programme for the upcoming project.

IDAF provided a staff member for a U.N. mission charged with finding some solutions to the repatriation of Senegalese canoe fishermen, and their families, who were previously active in Mauritania (prior to May 1989).

A review of craft development in the region was carried out in 1988 and this was discussed at a round table exchange of views on craft, propulsion, gear and security at sea, at Cotonou in September 1989. This meeting was a followup to a meeting on a similar subject held in Freetown in 1986.

The IDAF associate expert biologist has been working with the model project in Benin and assisted the local statistician to arrive at an estimate of the artisanal catch not only in the villages served by the project but for the marine artisanal fishery for the whole country. He has also been working closely with the GTZ financed project for development of lagoons. Mangroves play an essential role in ensuring the health of many inshore fish stocks and in providing wood both for firewood (and fish smoking) and hut construction. The knowledge will be of importance to assisting other countries in the region with management of the mangrove resource, which is so important for artisanal fishing communities. The project has contributed to efforts to ensure optimal exploitation of stocks available to artisan fishermen in the Gulf of Guinea.

The IDAF associate expert socio-economists have been closely involved with gathering information on and analysing the activities of women in the fishery sector ; e.g. improvements for such techniques as salt production in small quantities and in isolated areas, and with possible improvements to techniques for extracting oil from coconuts. They have also become involved in monitoring and evaluation, and this has meant collection and analysis of data on costs and earnings. The work has been in Shenge (Sierra Leone), Liberia and in Benin, in support of the model project activities.

2. An integrated approach to artisanal development

The IDAF Project was reviewed in January and February 1987, and the ongoing work programme and priorities were approved. This was followed up in early 1988 by an internal analysis carried out by staff of FAO in Rome in association with IDAF project staff both in Benin and in Sierra Leone. One of the main conclusions was that "projects should have a clear fisheries focus and should be mainly vertically integrated with horizontal or social elements only where necessary, feasible and requested". The report on the internal analysis was discussed at a seminar in Rome in March 1988 and its conclusions have been taken into account in formulating the proposals for priority implementation in project phase which started January 1989.

Progress has been made with developing approaches for project monitoring and evaluation, particularly in the context of the model project work in Benin. Two manuals have been written on the theme of participation.

Through analysis of the anthropological, social and economic conditions of fishermen a better understanding of their role in the process of integrated development of fishing communities can be devised and implemented. These interventions may well be required as policy decisions, to ensure for example the improved surveillance of coastal waters so that industrial vessels do not fish inshore in zones reserved for artisanal fishermen. Another policy decision may involve the abolition of fixed prices for fish and fish products. At the level of the rural fishing community the priority interventions may include the provision of clean drinking water, better health care, educational facilities, and land communications.

Presently, an FAO André Mayer fellowship has been granted to a lecturer at the University of Cape Coast to examine the background to integrated artisanal fishery development, and it is expected that the results will help to further our perception of this approach.

3. The model project in Benin

There are now three Fisheries Development Units working within the framework of the Benin model project, covering respectively villages in the Mono and Atlantiques provinces, and at Cotonou port.

Village development committees have been concerning themselves not only with fishing activities, but also market gardening, pig rearing, knitting, upkeep of tracks etc. A monitoring and evaluation report was undertaken of model project activities in the Atlantique province, and this is being followed by a similar evaluation of activities in the Mono province.

At the landing beach for artisanal canoes in Cotonou a Community Fishery Centre now exists, and it includes facilities for sale of fuel, nets and other equipment and repair of outboards (within the framework of a UNCDF financed activity), in addition to providing diesel motor repairs, boatbuilding repair and conversion of canoes, net repair and mounting, and fishermen's training in motor maintenance, fishing techniques and seamanship.

During 1988/89 the canoes operations were temporarily suspended because of safety at sea considerations. Along the whole coast in fact there are numerous instances of the accidents at sea and frequent loss of life. The regional component is giving increased emphasis to this feature.

The installation of inboard diesel engines in traditional canoes has proved generally successful. The model project is also fitting out private canoes according to specifications suitable for bottom set gillnetting, with multimonofilament nets and echosounder. The Technical Cooperation Programme of FAO financed an extension of this activity at Lomé during April 1989. A similar exercise was undertaken in Ghana in April 1989 and it is hoped that a follow-up can be financed by the Technical Cooperation Programme of FAO.

In 1988 and 1989 the model project in Benin published a series of working papers on results and experiences. The sort of work done by the model project may be replicated in other parts of the region ; if funding and commitment are available.

4. Fishery Developments Units

The associated project in Shenge, Sierra Leone, has been most active, and is progressing to a further phase, with UNDP finance. Supplementary funding is also available from the UN Capital Development Fund. The project has been successful in introducing improved processing procedures, income generating activities for the families, and with facilities to assist fishing, and propulsion. More intensive work in the women's activities and community development field will be the result of a Danida financed project in the framework of the ongoing Shenge

project. International staff members have given attention to the need for sustainability when funding and outside expertise are withdrawn. This problem is generally recognized throughout the region.

The associated project on lagune Aby near Abidjan is nearing the end of financing arrangements from the International Fund for Agriculture Development (IFAD). The project is now mainly involved in resource management, and continues activities with fisheries extension, and maintenance of infrastructure (in particular the landing points and wells). It is now more obvious than ever that in lagoons the primary development objective must be a careful control of fishing effort to avoid over exploitation.

UNDP is financing the Kabak project to the south of Conakry, and the European Development Fund (EDF) has provided equipment. The present project manager has now been in post for nearly one year, and much has been achieved. A workshop is operational, for repair of outboard motors, and much netting and outboards are available for sale to fishermen. Fishermen will be assured of a constant supply of fuel. There has been considerable assistance to the Kabak project from IDAF, both in provision of consultancy man months (credit, gear, processing/marketing) and in exchange of information with national staff of the Model Project in Benin, who have been able to visit the site in Guinea. The experiences in Kabak, which have been well analysed, are having an impact on government's approach to small-scale fisheries development throughout the country. A similar project is being set up at Kamsar in the north of Guinea.

UNDP is also financing the associated project on the shores of lake Volta at Yeji. The objective is to establish a Community Fishery Centre which, in particular, will assist the conditions of traders who buy and sell the dried fish produced from a large part of the lake. It will be of benefit also to all persons linked to fishing, and the Yeji community. IDAF played a key role in identifying and formulating this project. Now that the project has started it is hoped that sufficient funds will be available to allow construction of infrastructure ; something which has to be well planned given the fluctuating levels of the lake.

5. Increasing technical competence and exchange of specialists and information

The core staff of IDAF has an increasing awareness of the artisanal fisheries situations, trends and problems in the region and of the technical competence required to find some of the solutions. The IDAF project can thus play a unique role in fisheries development of the region.

The project has now produced twenty seven working papers (blue cover series) for distribution of information of a technical nature to assist government personnel and staff connected with the sector in their various activities. The project also circulates a newsletter in an easy-to-read form for those persons associated with project activities, and this has a wide circulation amongst fishery workers both within West Africa and outside. Recent themes have been about women in fisheries, and security at sea.

An important delegation from the Fisheries Ministry of Angola visited the project in April 1989, and members were able to learn a considerable amount from experiences with artisanal development. The delegation also made detailed assessments in Ghana and Côte d'Ivoire.

One continuing constraint to more frequent exchange of information is the absence of a library in many fishery departments. However, at the IDAF office in Cotonou, there is a comprehensive collection of documents on the fishery of each country in the region.

Project staff have contributed papers to important meetings on artisanal fisheries, and a recent contribution was by the project socio-anthropologist entitled "Migrations of Artisanal Fishermen". This paper was presented at the meeting on research and artisanal fisheries at Montpellier in July 1989. There was also participation at the meeting for Scandinavians engaged in fishery projects, held in Sweden in August.

In November 1988 a study tour of fisheries projects in the Gambia and Senegal was undertaken; examining integrated field projects, aquaculture initiatives and training activities.

A number of institutions in the region are collecting data on various aspects of social and economic conditions of fishermen and their communities, and these now need to be closely examined and analysed. Consultants also have been recruited by IDAF to undertake economic studies on small scale fisheries, the use of capital and credit in various ways, the nutritional aspects in artisanal fisheries, and the migration patterns of small-scale fishermen along the West African coast.

C. Increased participation and the future

In its work so far IDAF has been able to stimulate an increased awareness of artisanal fishery problems in the region, and some solutions to some of the problems. The subsector continues to be a highly important source of animal protein for the region, as well as providing substantial employment, much of it in rural zones. However a growing problem is the plight of many countries that have a worsening economic situation overall. This impacts negatively on the work of a number of technical departments responsible for fisheries that are unable to provide a necessary service either to central government or fishermen and others employed in the sector.

IDAF will continue to work closely with the model project and its successor in Benin and assist implementation and assessment of activities. Many of the initiatives of this project may yield results of consequence to artisanal fisheries throughout the region. IDAF also continues to work closely with FAO regional fishery bodies such as CIFA and CECAF.

As IDAF funding in time is reduced it is expected there will be continued participation in promotion of artisanal development, not only by public entities but also by the private sector, the fishermen, and their communities.

Appendix 4.

Ministry of Rural Development
and Co-operative Action

Fisheries Department

Programme for Integrated Development
of Artisanal Fisheries
in West Africa

Model Project - Benin
(FAO Project GCP/RAF/198/DEN)

ACCOMPLISHMENTS

AND

FUTURE PROSPECTS

Prepared by L. Affoyon
Original in French.

1. INTRODUCTION

The People's Republic of Benin has a coastline of 120 Kms. The width of its continental shelf that is crossed by different currents varies between 12 and 17 miles from West to East.

At the present time, the only exploited continental shelf resources are diverse : There are fish, shell-fish and molluscs.

Concerning the industrial fishery, the exploitation of those resources really started with the construction of the commercial harbour in 1963 and the fishing port in 1971.

Apart from the activity of trawlers, the inshore waters are also exploited by a fleet of canoes owned by artisanal fishermen. That fleet is composed of 654 dugout canoes and 244 out-board motors operated by 4000 fishermen.

The artisanal production has increased from 3430 tons in 1977 to 9047 tons in 1987.

The artisanal fisheries are exploited by cooperatives, family groups or enterprise groups.

Because artisanal fisheries provide a living and protein supply to a good many people in the community with less capital investment, the national policy is to emphasise its development.

Such a policy is encouraged by support to establishment of cooperatives, tax free fuel and introduction of new fishing techniques.

To encourage such an effort of development of fisheries, an agreement was signed in December 1983 between the government of Benin and FAO. Bearing in mind the unconvincing results of approaches used until then, the agreement intended to experiment with a new approach based on integrated development which takes into account both the technical aspects of development and the socio-economical need of fishermen communities.

For five years (1984-1989) the Model Project has focussed its attention on the basis of effective tasks which derive from the application of the concept of the new approach work by emphasising :

- The active participation of villagers
- The promotion of productive activities
- The dynamic catalytic mobilisation for the finance of the secondary micro-projects.
- The promotion of womens' activities.

During that five year period. some actions have been realised. some are on the way to be done and others are still a major need of target communities.

2. Institutional basis

All fisheries development activities are organised under the authority of the Ministry of Rural Development and through its technical structure which is the fisheries department. The fisheries department is in charge of governmental fisheries policy elaboration and the application of the directives.

The project which is under the supervision of the fisheries department has to be directed in conformity with government directives.

The Ministry of Rural Development on the other hand will facilitate the contacts between the project and other government and international agencies interested in the approach or willing to bring a complementary financing to the project action.

3. Objectives of the project

a) The project objectives of development are the increase of capture by the improvement and the introduction of new fishing methods, the training of the young fishermen, the efficiency of the investment cost and working and not least the improvement of the fishermen's wellbeing and their communities.

b) The urgent objectives aim at the establishment of the unity of fishery development. at the identification of politically and socially acceptable possibilities to improve the technology and the organisation of the fishermen, and sources of income capable to improve their wellbeing.

4. First stage results

During five years of the project. several actions have been carried through in the following sectors : Fishermen training, alternative economic activities, community infrastructures, education for community development, research development.

4.1 Fishermen training

The training aims to teach the fishermen new fishing methods and the use of echosounders and compasses in order to :

- increase production during low fishing periods
- increase the income of the fishermen.

The training topics are diversified and comprise seamanship, navigation, mechanics and fishing methods.

Thus at the end of the training, 51 motorist fishermen have been trained in engine maintenance 116 fishermen in fishing techniques and navigation (hand line, bottom set gillnet, echosounder and compass).

The result of the training is mainly noticeable in hand lining and bottom set gillnetting where 9 (nine) groups employing 60 trained fishermen use echosounders.

4.2 Alternative economical activities

The question is to ameliorate the existing activities or to introduce new ones to thus remedy the insufficient incomes from fishing. Although all the classes of the community are concerned, the actions in that field are essentially to fulfill the objective of women activities promotion.

4.2.1 Market - gardening

The market-gardening activities group 101 women 72% of whom are in Grand-Popo sector and 28% in the sector of Ouidah. The project action has consisted of technical assistance and in a financial support (in form of credit).

Problems of land shortage and plant diseases did not allow an important change in the market-gardening activity.

4.2.2 Breeding

By its intervention in that field of activity the project wanted to ameliorate a traditional breeding experience of pigs in the sector of Ouidah by introducing the breeding in pens. In fact, the breeding of pigs is the most popular activity in the sector.

The support of the project has been here to train extension workers and some breeders in a modern breeding center. The support has been also the contribution to the building of a piggery supplied with pigs.

The poor outcome is due to the difficulty of changing from a breeding in the open air to a breeding in an enclosed place. Food supply for the pigs is the main obstacle on which researches for solution are in hand.

4.2.3 Knitting

In the target villages of the project it has been noticed a low school attendance and a high attraction for city for both girls and boys. However, the project has given boys training in fishing technology; needlework and other handcraft have been kept

for girls. The objective of training in knitting is to allow the girls to gain a new knowledge in order to produce things to sell (child's vest, bootees, hoods, dresses, carpets, knotted bags etc.) which could produce some income to the beneficiaries. In the sector of Grand-Popo where this activity took place, 41 girls have been trained.

If the first objective of bringing a new knowledge has been reached, the second objective that is to generate income hasn't been achieved because of a lack of markets.

4.2.4 Fish marketing

Most of the project activities till then were aimed at rural areas. At a certain time, the experience of a micro-project in the urban centre of Cotonou proved to be necessary taking into account the existing problems : lack of employment, need of capital, etc...

This micro-project has two stages :

- Initiation of 22 women in the management of small trade
- Selling of fresh fish as the application of the first stage.

The experience is being continued with 11 women.

4.2.5 Credit

The need of capital often expressed by the concerned population made the project try some experience in credit mainly for women in the following sectors: Gardening, salt production, pig breeding, coconut oil production.

Apart from market gardening where some difficulties arose, the reimbursement of the loans is without any problem.

4.3 Community infrastructures

According to the integrated approach, part of the project activities is directed to social needs which are considered as priority by the target communities.

4.3.1 Wells

Although they live along the lagoon, the fishermen community face a critical problem of drinking water. That is why the main objective of the well micro-project is to supply those populations with drinking water.

Thanks to UNICEF financing, 26 wells have been dug in Ouidah

and Grand-Popo sectors, 23 of which for drinking water and 5 for gardens' irrigation. Usually water from the wells dug by the project are better than those formerly drunk. But from chemical and bacteriological analysis, the water is not recommended for drinking. For that fact, contracts have been made to improve the quality of the water.

4.3.2 Village tracks

Some of the target villages of the project (sector of Ouidah) are landlocked. To solve the problems, two tracks have been built: One from Avlékété to Pahou 4.8 kms and the other Adounko-Cococodji 5.0 kms.

The two tracks have reduced isolation of the main and surrounding villages and allow the trade of fish and agricultural products, access to the medical center, and the transport of passengers and goods by taxis and motorcycles.

4.3.3 Water transport

The geographic position of the villages, concerned with the project, mean there is a mother village and small satellite villages separated by a lagoon. The transactions between those villages are important and executed by the means of individual small canoes. On cooperative demand, a big transport canoe has been financed by the project in form of loan to increase the transaction and facilitate the transport of both people of the village and outside the village.

In the sector of Ouidah where that activity takes place some villagers are trying to organise themselves in order to be equipped with one transport boat.

4.3.4 Fishermens shelters

The objective here is to equip the five target villages with a structure to be used for meetings and also as a training center. Thus one shelter for fishermen in each target village has been built comprising a place for work, a warehouse and an office.

Three out of five shelters are frequently used. With time, they could be used as infrasturcture for extension workers employed in fisheries.

4.4 Education for community development

In each of the villages selected by the project there is a development committee of the village. The committee has to :

- create the idea of community in the approach of different

problems of development

- to familiarize the people with the work of the project and to support it in identification, problems analysis, research of solutions and execution of selected activities.

In some villages more than others the necessity of such an organisation is well accepted and the role vested in those village committees for developments is understood in the sense of being in charge of their own development.

4.5 Development research

The absence of fundamental socio-economic studies on fishermen communities and reliable statistics data have led the project to undertake development research.

Thus studies have been realised on statistics, fish smoking, fishing gears, nutritional state of fishermen communities, demography, socio-fishermen communities, suitable technique of coconut oil extraction, salt production.

Numerous micro-projects have been executed in order to increase the comfort of the fishermen communities. For five years the Model project of IDAF has tackled that task which can be qualified today as actions to be sustained.

5. Plan for the future

The communities in which the project intervenes are still characterized by some signs of underdevelopment.

The success of the project and the previous achievement of past projects allow one to notice a certain improvement but supervision with financially sustained actions will help to ensure a better future.

The establishment of village development committee in the villages must be better supervised so that the communities can self manage their life, through setting up a Fishery Development Unit (F.D.U.). Micro-projects in fishing, community and womens' development need to be intensified.

5.1 Fishery Development Unit (F.D.U.)

The FDU are supervising structures set to :

- help the communities for a future self-management
- support technically any kind of action being implemented in the community.
- Coordinate all actions in the sector.

The FDU should be composed of multidisciplinary groups (fishing gear technologists, mechanics, extension workers, planners, managers of small enterprises, specialist in women activities) the FDU helps development activities.

After five years of activity one can notice that the FDU are neither correctly set as far as their composition is concern nor sufficiently prepared to play their role of animation and coordination.

Thus the problem is in that second stage to incite or create if needed those structures for a more efficient supervision.

5.2 Village Development Committees

Now that the necessity of such a social organisation is understood and the role they have to play is known that is :

- to help the target population to be capable of finding out and analyzing all the problems related to their community. to search for solutions and adequate needs in and out the community.
- to reduce step by step the subordination existing between the supervisors and themselves.

To lead the communities to the ultimate stage of self management, the VDC still need for a few years the help of the FDU.

5.3 Training

At the community level, the training is in two fields:

- Training for new techniques mastering and improvement of former ones.
- Training for self management of the VDC
 - In the first case, better contact will be made with the fishermen to be trained in order to allow a more important impact.
 - If necessary other fishing experimentation centers for FDU outside Cotonou will be created.
 - Introduction of appropriate technology in order to improve the working conditions of the communities will be made.
 - Suitable conditions for the trained fishermen will be found by agreement.

In the second case the objective will be :

- To increase in number the meeting of the VDC
- To put more and more the running of the organisation structure in the hands of the community's members.
- To set up a system of follow up and evaluation which results will allow to reach as quickly as possible self community responsibility.

5.3.2 Training of development stimulating persons

The objective will be to train them to be capable of stimulating the communities, planning the activities and managing small business.

- to make the FDU a real multidisciplinary group by training them in :
 - * fishing techniques
 - * community organisation
 - * management of small business
 - * mechanics
 - * family economy
 - * encourage the project members in participation in training, national, and international workshops.

5.4. Development research

Five years activities helped somehow in a better knowledge of the fisheries sector and the surrounding field.

In future the problem will be to pursue and deepen the studies of fisheries socio-economy, money saving and credit, appropriate technology in women activities, marine biology, evaluation of the stocks and safety at sea.

All those studies must aim at putting at the disposal of the project and concerned services, elements of knowledge capable of informing them to help with the decision making process.

6. Planning Activities

Considering the acquisitions from the first phase and facing the accumulated experiences, the consolidation and the widening of the realisations require a second phase four years 1990-1993.

The action of the project will in future be concerned with four points as follows:

- a) Revitalization and widening of self developmental structure.
- b) Consolidation of the acquisitions from the first phase and initiation of new micro-projects.

- c) Training of development stimulating persons of the project and regional cooperation.
- d) Pursuit of development research.

6.1 Revitalization and broadening of self-development structures (Cotonou, Ouidah, Grand-Popo)

For the three existing FDU the matter will be :

- to endow them with a complex of offices
- to provide them with multidisciplinary skills
- to grant them a relative financial autonomy.

The other villages where the project does not intervene really need structures of self development which are the FDU; the matter then will be to provide the coastline with two further FDU.

The VDC are points for exchange of views on the problems of the village and solution. Those existing VDC will be revitalised and new ones created in selected villages.

6.2 Consolidation of the acquisition from the first phase and initiation of new micro projects

Apart from the classic fishing activities, research will be undertaken with a view to experimenting safety at sea equipment for the canoe fleet.

Fishing activities The matter will be :

- to pursue the training of fishermen and the retraining of those already trained on handlining, bottom set gillnetting, inboard and outboard engines maintenance, use of echosounder and compass and safety at sea.
- to experiment fishing methods such as trawling, driftnetting, longlining and to introduce different outboard motors.
- to popularize the technologies that have been tested.
- to bring along a support to the development of inland fisheries.

Women Activities Here the matter will be :

to promote alternative economical activities and to facilitate their development through loans policy : stores for selling first necessity products, market gardening, breeding, extraction of coconut oil, production and marketing of salt.

- to popularize chorkor oven for smoking fish
- to promote the most adequate forms of organisation for the development of women's activities.
- to initiate the training (dress making, knitting, small trade management) of girls who have stopped schooling.

Social needs activities A particular stress must be put on the following points :

- improvement of tracks to link up the communities
- Repairing of schools.
- digging of wells
- support to water transport development

Concerning the project activities some are not yet fully executed. Hence it is important to search for finance for those that are admitted as priorities.

Initiation of new micro-projects

One by one, according to the need, the project will have to create new micro-projects in the different fields.

6.3 Training of development stimulating staff and regional cooperation

6.3.1 Training of development stimulating staff (extension agents)

To attain objectives of the project, the training of the members at all levels is absolutely necessary. Taking into account the multidisciplinary characteristic of the fisheries sector and the FDU such a job training should be concerned with the following sectors : planning, animation, management, fishing technology, mechanics of marine motors, processing of fishing products, evaluation, fisheries socio-economy.

The setting of those training activities may be on the spot through seminars and workshops, or abroad in much more experienced centres.

6.3.2 Regional Cooperation

This cooperation will be materialized at two levels :

- National level
- International level.

National level

At this level, one must recall the cooperation with "Projet Developpement Sanitaire de Pahou"; "Projet Pêche Lagunaire";

"Centre d'Action Regional pour le Developpement rural de l'Atlantique, du Mono et de l'Ouémé" "la Direction de l'Alimentation et de la Nutrition Appliquée" and the ministry of education.

The matter will be to re-enforce and multiply those relationships.

International level

Here again, cooperation does exist and the matter will be to intensify it and to have all countries and institutions interested in it to take maximum advantage from the accomplishment of an integrated and participatory development of the fisheries sector. The contribution of IDAF is already known and its intensification is searched for at the level of the program authorities.

7. Pursuit of Development Research

At this second phase of the project, one must concentrate on furthering the studies previously conducted and then expand them to other fields : statistics, fish smoking, fishing gears, nutritional condition of fishermen communities, demography, socio-economy structure, savings and credit, appropriate technology in the field of coconut oil extraction and salt production, etc.

Contribution of the Regional Programme GCP/RAF/192/DEN to the
Model Project Benin GCP/RAF/198/DEN

in US Dollars

	1990	1991	1992	1993	TOTAL
Travel	5.000	5.000	3.000	3.000	16.000
Contracts	5.000	7.000	7.000	5.000	24.000
General operating expenses	17.000	17.000	10.000	10.000	54.000
Supplies	10.000	10.000	5.000	5.000	30.000
Equipment	20.000	20.000	15.000	15.000	70.000
Training	30.000	25.000	20.000	18.000	93.000
Subtotal	87.000	84.000	60.000	56.000	287.000
Support costs 13%	11.310	10.920	7.800	7.280	37.310
Subtotal	98.310	94.920	67.800	63.280	324.310
Special factor	3.932	3.797	2.712	2.530	12.971
TOTAL	102.242	98.717	70.512	65.810	337.281

According to Benin Model Project GCP/RAF/198/DEN Plan of operation elaborated by FAO for 1989 it is stipulated that :

From 1990 a technical and operational support (travel, equipment, training) will be given to the FDU by IDAF.

For that a detailed budget has been elaborated for the execution of phase II.

N.B./ The above is a suggestion and in no way a commitment.

Grant to search for

CFA Million

	1990	1991	1992	1993	1994	TOTAL
Investigation	2.2	2.2	2.3	2.4	3.4	12.4
Land	-	-	-	-	-	-
Building	24	24	-	-	-	48
Equipment	15	10	7	5	10	47
Furniture	3	3	3	2	5	16
Cars	-	15	12	6	-	33
Technical assistance	31	30	32	34	10	137
Training	10	8	7	8	10	43
Operating cost	-	-	-	-	-	-
Running support	10	8	10	11	12	51
Others	-	-	-	-	-	-
Special factors	9.5	10	7.3	6.8	5	38.7
TOTAL	104.6	110.2	80.6	75.2	55.4	426.1

Grant to search for

The provisional budget for phase II is far below what is required. For that complementary budget has been calculated.

This budget which is a grant to search for is part of the national investment programme.

Comment on financial programme according to the type of expenses

The studies comprise fishing technology, research on safety at sea, biological research and fisheries statistics, adequate technology for coconut oil production, salt production and other socio-economical studies.

Buildings, civil engineering : For this topic 4 fisheries centres are to be built (offices, equipped houses) at Seme, Hio, Diégbadji and Ayiguinnou. The cost of each centre is estimated at 12.000.000 FCFA. Two centres will be built a year during the two first years (1990-1991).

Vehicle and other means of transport

This heading concerns essentially 6 pick-up type vehicles, 2 staff vehicles and 30 motorbikes (mobylette)

Machines and equipment

Here we are talking about equipment required for the training of fishermen: canoes, motors, fishing gears and materials.

Technical assistance

This concerns the salary of an expert: 2.000.000 FCFA a month and a prevision of 7.000.000 FCFA for yearly consultancies.

Training

The training will be for the project staff in the field of : planification, management, animation, marine motors engineering, evaluation, fisheries socio-economy. This could be a local training or abroad.

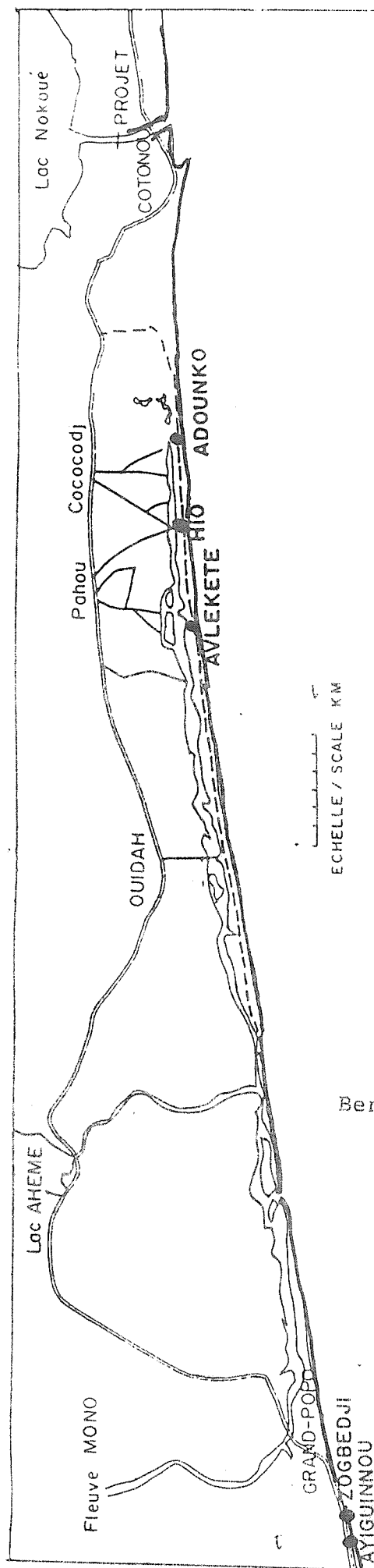
Running support

This concerns the financing of all types of micro-projects : Fishing, women activities, social needs.

List of the Model Project Publications

- Coackley A.D.R. : Report on installation of a diesel inboard motor in a Ghana Canoe (French and English version)
- Zannou L. : Etude technico-économiques des fours améliorés pour le fumage de poisson en R.P. Bénin (1987)
- Atti-Mama C. and Rais M. : PMB/WP/3. Etude démographique des communautés cibles du projet modèle Bénin. (1986)
- Jorion P. : PMB//WP/4. Distribution non-monétaire de poisson comme aliment dans les villages Béninois de pêche artisanale et leur rôle auto-nutritionnel dans le village.
- Tanimomo P. : PMB/WP/6 Formation des jeunes pêcheurs de l'UNICOOPEMA à Lomé (1989)
- Atti-Mama C. : PMB//WP/7. Impact socio-economique de la piste Pahou-Kpota (1989)
- Houndékon B.R. and Tempelman D.E. : PMB/WP/8. Animation Gestion et Planification. Séance de travail avec les agents de terrain. Compte rendu et guide pédagogique (1989)
- Atti-Mama C. : PMB/WP/9. Evaluation interne des activités du
Turcotte D. and
Wentholt W. : Projet Modèle Bénin dans le secteur de Ouidah (1989).

VILLAGES CIBLES DU PROJET MODELE / BENIN



Benin, Model Project

Appendix 5.

Field visit organized by Canadian project, Dakar

Wednesday 22 November 1989

- 11h.45 Depart from Hotel Independance
- 12h.00 Lunch at La Corvette, Hann beach
- 13h.30 Depart for Yoff beach, to see construction of traditional canoes, examine structure of management on the beach (GIE - fishermens groups), and processing.
- 15h.30 Depart for SOSACHIM factory to see construction of improved canoe in fibreglass
- 16h.30 CAMP - Thiaroye. Centre for assistance to motorisation of canoes; headquarters of PROPECHE. Outboard diesel motor - japanese and italian, comparison with Yamaha outboard, Yamaha and local canoes
- 17h.30 Cocktail offered by Propêche

PRO-PECHE is the project formed as a result of agreements between Senegal and Canada to help artisanal fisheries. There are two areas of action. SERVIPECHE covers credit and micro-projects, and is entrusted to the Canadian company Desjardins. ATEPAS covers improvement in fishing and processing techniques and is entrusted to CEGIR and NS INTER. The project is to last at least five years.

Address: Km 10.5 Route de Rufisque, B.P. 3 - Dakar R.P.
Tel.: (221)34-31-81/34-31-82, Fax (221) 34-31-20.

Appendix 6LAGUNE ABY PROJECT, COTE D'IVOIREINTRODUCTION

The Artisanal Fisheries Development Project on the Aby lagoon cofinanced by IFAD and Côte - d'Ivoire comprises two main components.

1. The establishment of a socio economic infrastructure :

To improve the living and work conditions of fishermen and fish smoking women. Great success is being achieved in this field as regards landing piers, sheltered markets and wells of drinking water. The construction of cold rooms and smokers has been slowing down.

2. The Management of resources :

This issue gave rise to a lot of reflections and recorded a very long delay with regard to implementation. The conditions which dictated its elaboration have deeply changed.

The object of this note is to present a first assessment of the project's activities and to sketch out an approach to the management of resources in the light of the new situation.

II. SOCIO-ECONOMIC INFRASTRUCTURE

1. Works executed

1.1 The landing pier

This work has scored a great success with the populations. It should be pointed out that so far, each village has been endowed with a wooden make shift landing pier. The project will provide a solution to the issue of quays for boats and canoes which is of paramount importance to lakeside residents (just as a bus station). 29 landing piers have been built and fifteen or so new demands have been recorded. But unfortunately these demands can not be met as the landing pier programme has come to an end. All the major villages have been endowed with that infrastructure.

1.2. Sheltered markets

These markets which were in a limited number at the beginning have been receiving wide acceptance. The construction of the markets of Tiapoum and Etueboué is being considered to supplement the existing markets of Adiaké, Assinie and Moha.

1.3. Wells

About thirty wells dug by the project under government supervision provide potable water to landlocked villages chiefly located south of the lagoon. The impact of this operation can be measured in terms of the number of demands recorded and especially with the eradication of water-borne diseases whose prevalence is very high during the rainy season.

A few defects have been noted at the level of the rudimentary water pumping system, which causes frequent breakdowns.

2. Justification and impact of the component "Infrastructure"

With the lagoon-side dweller, the impact is first and foremost measured in terms of effective installation of infrastructural equipment in his village ; For him, variations in catches are normal and any solution can only be found over the long term ; he welcomes the reduction in the number of fishermen and the withdrawal of purse seines.

The landing piers, the sheltered markets and the wells are evidence of the interest the Ivorian Government and IFAD show in the region. The landing pier has become a source of pride and those villages which do not yet have it believe they are being segregated. They cannot realize the correlation between the availability of funds and allocation of resources for the construction of landing piers and sheltered markets.

The villages of Akounougbe and Aby have introduced a request for a market. As for Akounougbe, provision was made for the rehabilitation of the old market but it appeared after analysis that constructing a new market is more sensible than restoring a shelter which is unsuited for market activities. Aby, one of the most modern villages of the lagoon with more than 1/4 of the purse seine population (11 of 37) has been deprived of its only means of production. The shift towards other gears has been going on gradually and one must acknowledge that the village has collaborated by willingly adhering to fisheries development decisions. Unfortunately, its request cannot be met.

The number of wells should not increased and above all, the working mechanism should be examined and adjusted to the demands of the rural area.

III. THE MANAGEMENT OF FISHERIES RESOURCES

1. Based on the fact that only the stock of ethmalose overexploited, the fishing effort was during the first two years, focused on high value species, namely catfishh and tilapia by providing individual or groups of fishermen or village cooperatives, with gillnets or long lines. That would, in the meantime, allow the stock of ethmaloses to come back to its optimum level. A specific number of beach seimes and purse seines would be financed during the last three years.

2. Unfortunately, the first investigations carried out by the Project headquarter have shed light on the state of utter confusion which confront the fishermen since 1980. Overfishing now affects all species.

Among the several causes of overfishing, one can note :

- the use of highly powerful and non discriminatory gears such as seines.
- uncontrolled fishing effort : more than 5,000 fishermen and a great number of ethmalose gillnets the users of which have gone up three-fold since 1982.
- A severe damage to the wild life through the prohibited use of pesticides.

The closing of the ASSINIE channel and the silting-up of channels upstream. The latter, probably in connection with the regulation of water in hydro-power dams.

The long droughts that have disrupted rain patterns.

Given the facts above and in order to remedy the prevailing disastrous situation, a series of measures are being considered some of which have already been initiated.

3.1. Physical development of the lagoon

A bathymetric and hydrological study will enable us to better understand how the delta gets silted up and envisage appropriate solutions in order to insure a smooth flow of bodies of water. This study carried out by the Port Autonome of Abidjan got under way since July 1989 and should lead to a mathematical

model on the basis of which development works for the ASSINIE channel and upstream channels will be planned.

According to preliminary estimates, 3 billion FCFA will be needed to clean out the channels, which is a very large sum of money in the economic situation the country is now facing.

3.2. Fisheries development

3.2.1. The fishing effort

The closing of fishing from 1 May 1987 to 31 October of the same year was the pretext for the introduction of a whole range of measures including :

1. Thanks to a census of the fisherfolk made with the support of the dignitaries of each village, the population of fishermen has been brought down to 3,000 people. An individual fishing licence was introduced but its issue is being hampered by socio-political considerations as traditional authorities are not willing to lose some privileges attached to their old ways of managing the lagoon. In fact, they were the recipients of taxes paid by fishermen, especially the native ones.

2. Gears : Gears are being controlled as a result of the reduction of the fishing effort :

a) The purse seine has been abolished ; such an unselective gear (with 14 mm mesh) entailed biological and economic drawbacks when carried to the lagoon without some readjustment . Fishing was no longer an income-generating activity and labour was getting scarce. On the whole, 37 seines were affected.

b) All the small crabs and shrimps drag-seines have been abolished. They destroy the youngest fish and shellfish stocks.

The global number (purse seines + beach seines) has been brought down from 105 to 150 beach seines, that is a reduction of 1/4.

A new type of beach seine is being tested : it does not differ from the seines currently in operation except for the mesh : 25mm at the leads and 20 mm at the bag.

The EHY and TENDO lagoons will be the subject of a special study on the grounds of their shallowness.

c) Gillnets : the lagoons have large possibilities for gillnets, notably for :

Ethmaloses nets : with meshes of 20 to 25 mm ; their number has changed markedly as a result of the census which provoked the departure of many Ghanaians.

- The use of carp nets has been expanding as the ethmalose has become scarce. However, the major drawback remains the association of toxic products to the use of those nets.

People now tend to encourage individual fishing that guarantees perennial stocks and presents a very positive investment/yield ratio. The deployment of these gears calls for adequate funding policies.

d) Lagoon monitoring. The creation of a "watchful" brigade in each village has been envisaged to stop the use of toxic products (insecticides, herbicides) as a means of fishing.

3. Craft :

Contrary to expectations, trials with some canoes designed by the Project and made available to fishermen (crab GVC at Adiaké and the GVC at Nouamou) were not successful. These small 3m x 80 cm crafts were built with marine plywood and had galvanized iron ribs. The boards did not resist wood borers and stability was not ensured. Therefore, there is need to go back to existing crafts and improve them.

3.2.2. Aquaculture :

This back-up activity should allow maximum exploitation of the resources of the lagoon. The intensive aquaculture Project on the Ebrie lagoon aroused a lot of interest in the ADIAKE region. In 1984, about 8 fish exploitation concerns were recorded on the ABY lagoon. Today, people are unfortunately disillusioned and all those fish-traps have been abandoned. The development of this new activity has been penalized by some ill-controlled key factors such as food and young fish supply, monitoring and follow-up and selling fish.

The Project has already looked into the avenues for the development of intensive aquaculture on the Aby lagoon. The first findings call for a cautious attitude. Nevertheless, thanks to an inventory of all the sites favourable for such an activity basic information will be made available to prospective applicants.

1. Extensive aquaculture, especially the Acadja, has retained our attention. The acadja - bamboo practice experimented by the Oceanographic Research Centre (CRO) may find a favourable ground on the Aby lagoon.

Just as in the case of intensive aquaculture, the areas which are suitable for that activity will be determined. Before the acadja proliferates uncontrollably, rules for its introduction must be established first to avoid the types of nuisance and conflicts that have been recorded elsewhere.

2. The experiment made with the echo-sounder at Adiaké is promising. In fact, fishing showed on the histogram polymodal-size fishes although the fish-trap initially contained species of the same size. The presence of a very few Guineensis stocks in the sample testifies to the success of the trial. However, the experience is well worth repeating.

The lagoon offers a few more or less closed bays for this type of fishing.

3.3.3. Accompanying research

The trend of fish catches is shown by the ethmalose, the most prevailing stock. Its extinction was at the origin of the first crisis which hit the trade in 1981. The economics of the whole fishing business depends on the behaviour yet improperly known of this migratory fish. The aims of the component entitled "Accompanying research", entrusted to the Oceanographic Research Centre (CRO) will be :

- To identify and spot the parental stock (ethmalose) as well as the breeding grounds and nurseries ;
- To reinforce data collection for the purpose of reassessing the lagoon's potential.
- To support the Project in designing (new gears) and following up hold and new gears and in the field of extensive aquaculture (acadja-bamboo).

IV. PROCESSING AND MARKETING

One of the major problem in the artisanal fishery which is characterized by a multitude of landing points and a variety of fishing gears is fish preservation whose purpose is to make the produce edible. Within the region, there are two ways of processing the fish.

1.1. Smoking : This method affects 95 % of total production. It allows better preservation and marketing towards the interior. But new methods well adapted to cooking habits of the people have been very slow. The Project has developed a smoker with remarkable advantages :

- It makes the work less tedious
- It is energy - saving

- The product is similar to that of the traditional smoker. The spread of this smoker met with a visual difficulty with respect to the threading of the fish through the opercula.

The smoker should be spread together with the "Chorkor" in all the big villages in the area.

1.2 Preservation with ice, and provision of cold stores :

This concerns the high value species : catfish, tilapia (carp) and shellfishes. Provision was made for the installation of three cold stores at Adiaké, Assinie and Tiapoum.

The Project has already installed a small ice plant (2 tonnes per day) at Adiaké and is intending to install the same plant at Assinie in addition to a small cold room for the storage of shrimps. With the rapid development of trap fishing and the expansion of the acadja on the Tendo and Ehy lagoons, Tiapoum may receive the same facilities later on.

2. Fish marketing :

Fish trading will be centred around the iced fish to trade. It is a question of assisting the fishermen by the ensuzing, the sale of the high value species on the markets of Abidjan, in a good fresh state.

Fresh fish and fresh crabs are carried daily to Bonoua, Grand-Bassam, Abidjan. But no precaution is taken, which means quality is not always guaranteed. Ice product trading is mainly intended for the "maquis" (african restaurants). A small pick-up car has been already purchased by the Project and first trials have been shown good results.

V. CREDIT

1. The general picture of agricultural credit

To support agricultural activities, the government has set up a financial institution specialized in agricultural credits, the BNDA, (National Bank for Agricultural Development) whose vocation is to make available to small farmers, cooperatives or any other grouping, adequate financial means through the granting of credit with a view to promoting agriculture which is the driving force of the national economy.

In order to receive credits at a moderate rate, farmers have been grouped into pre-cooperatives or GVCs (Cooperative groupings).

But given the unpredictable nature of the agricultural activity and the general feeling that BNDA-granted credit is looked upon as a government donation, outstanding repayments now amount to several hundreds million CFA francs.

2. The case of the Aby lagoon :

Credit was one of the pretexts for the introduction of the cooperative movement on the Aby in 1979-1980. That was when the purse seine first came to the lagoon and in order to buy it, fishermen were asked to group themselves to be eligible for BNDA credits. Thus, 42 GVC came into being and outstanding payments to date amount to about 100 million francs. The only guarantee remained the backing of all the members.

It should be noted that the sudden drop in catches in 1982 which resulted in the suspension of big nets for 6 months is partly responsible for that situation. However, all the trading or traditional loans were reimbursed (in the informal field of lending).

3. Future Policies

Persistent poor fishing seasons provoked another break of 6 months in 1987 ; as part of accompanying measures, the purse seine was withdrawn for good but the beach seine was allowed to operate for a few more years. Now there is a shift of emphasis towards the development of small-scale fisheries that use individual and semi individual gears : dipnets, traps, gillnets etc.

4. Activities to be funded will include :

4.1. Fishing :

Mainly with small gears shared out on a zonal basis.

Large-mesh gillnets will be used mainly on the northern part of the Aby lagoon which is full of lichen. As for Aby South, crab dipnets are more suitable. Wire traps are well adapted for reeds. The Tendo-Ehy lagoon has a large vegetation of reeds. Many Nigerians have settled in the region and fish with traps.

In the delta, cone-shaped nets will be used for passive fishing of shrimps. If the new Aby net (beach seine) developed by the Project is successful, the funding of a few unit may be envisaged yet with a lot of precautions. All over the lagoon, carp gillnets do not pose any funding problem. Loans will be garanted for the installation of acadja-bamboos.

4.2. Fish conditioning :

1. The two associated smokers, that is the Aby smoker for initial smoking and the Chorkor for further smoking, will be financed. We therefore have a two-component-system which is properly mastered and which stands as a good substitute for traditional smokers.

2. Thanks to the small ice plant at Adiaké, fish (especially tilapia and catfish if possible) will be sold under cold condition on the markets of Abidjan. If the trials are successful the experiment could be extended to the EHY lagoon with the installation of such a unit at TIAPOUN. As far as fishing is councerned, supply is currently lower than demand.

Assinie is not facing any difficulty and there are real potentialities for the use and profitability of a cold chain : a good many quantities of shrimps are sold fresh (200 t/year); both from maritime and lagoon fishing.

V. CONCLUSION

The Project has undertaken some concrete actions on the field especially through the provision of a socio-economic infrastructure whose benefits can be measured in terms of the degree of satisfaction expressed by the lagoon-side dwellers.

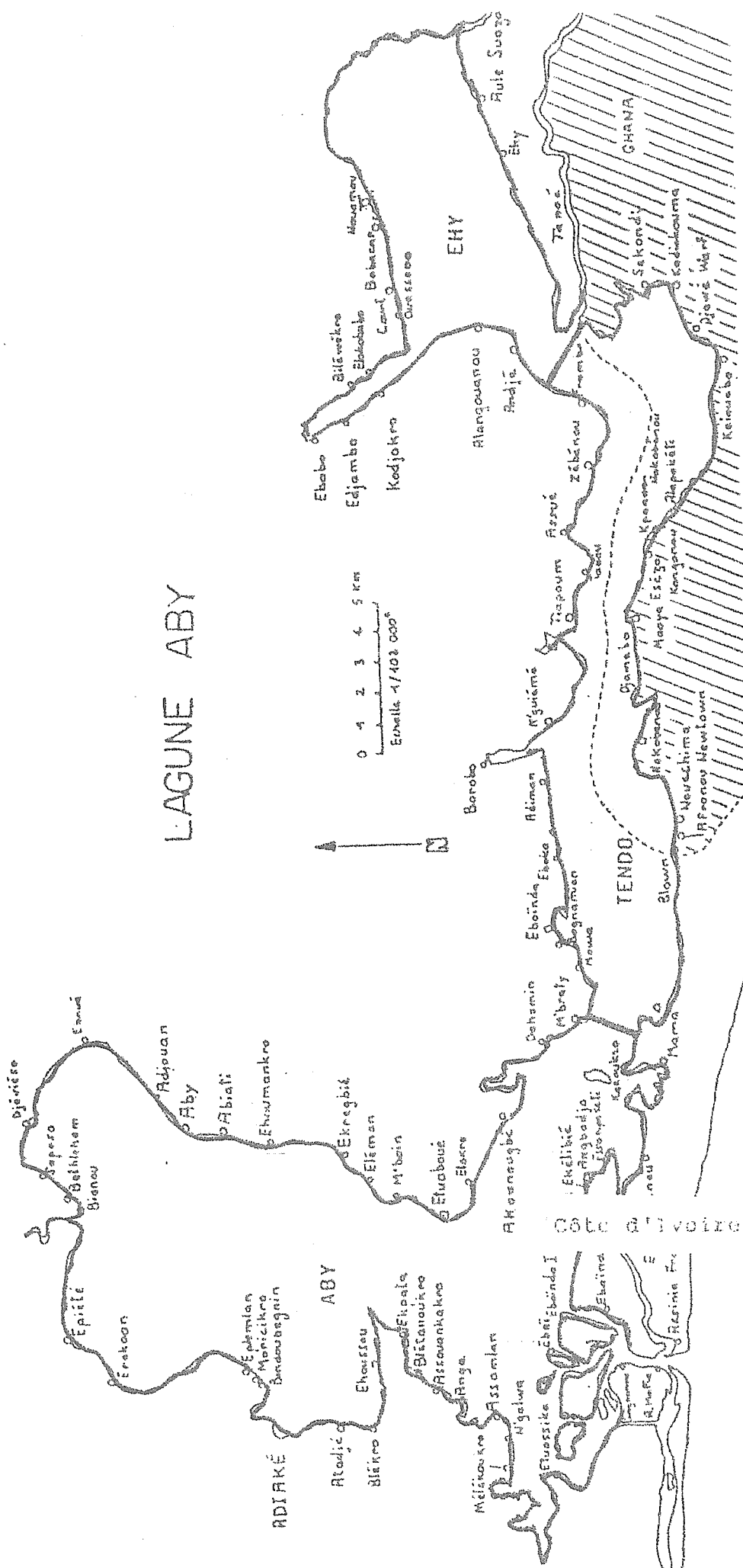
But the most important step is yet to be taken. That is formulating a coherent development plan for the lagoon taking into account the eco-physical capacities of the lagoon as well as the socio-economic conditions of the area.

After the closing of fishing in 1987 folowed by the banning of the purse seine and a drop in the fishermen population, production picked up again in 1988 and fish landings came back to their level of 1980, that is 9000 tonnes.

There is room for hope that the Aby lagoon will become once again productive if the following measures are strictly implemented :

- Limitation of the number of fishermen ;
- Limitation of nets
- Adoption of a new type of mesh for those nets.
- Unrestrained fight against dishonest fishermen who use toxic products. We are right to hope that acadja-bamboos and intensive aquaculture will develop as the stretch of water concerned can be a suitable ground. All these actions will be backed by a credit representing 40 % of BNDA loan.

BOUBERI DOUMINI



Appendix 7

ARTISANAL FISHERIES DEVELOPMENT PROJECT
IN THE CONGO BASIN

Memorandum for IDAFA. Project's history

The artisanal fisheries development project in the Congo basin was identified in July 1980 by an IDAF mission and prepared by the FAO Investment Centre in March 1981.

It was approved on 30 May 1983 following the loan agreement n° 117-CG between IFAD and the Congolese Government for a total cost of 4.5 million SDRs.

B. Project area

The project is located within the administrative region of the basin, in the north of the People's Republic of Congo. The project area embraces fishermen's villages and camps around Mossaka and along the river Congo down to Kounda, about fifty kilometres downstream.

The area so mapped out includes the richest fishing zone of the basin. It covers about 70 villages or a population estimated at 14,250 inhabitants (population census, 1 January 1985) including 2,700 full time fishermen and about 1,500 seasonal migrants.

C. Objectives

The project's objectives have been defined on the basis of available data on resources, existing technology, outlets and socio-economic conditions. They mainly consist in the use to the best advantage of local resources and in improving the incomes and living standards of fishing families.

The project attached a particular interest to communities living in the area. It is basically aimed at a faster and more effective marketing of fish, a better quality for the smoked produce and a better division of labour as regards fish catching and processing activities. Finally, it aims at stepping up the fishing effort through the improvement of fishing techniques.

D. Project's Description

In order to achieve the above-described objectives, the following actions were envisaged through the Office National des pêches Continentales, (ONAPEC), the Congolese Inland Fisheries Corporation set up to implement the project :

1. the establishment of an extension and support department and the creation in three main villages in the project area of Community Fisheries Centres to provide extension and support services.

2. Marketing

- introduction of a smoker-fish collection service on the main rivers that run through the project area
- fish handling at Mossaka base including sorting, grading and a new selective smoking method
- fish transportation by the Transcongolese Communications Agency (ATC) on the river Congo down to Brazzaville

3. Technical assistance

- the appointment of a team of five expatriate experts (FAO) to assist in the project's management ;
- training and technical support of ONAPEC staff
- reinforcement of a follow-up unit and evaluation within the Fisheries Ministry which is mainly in charge of assisting ONAPEC in preparing a progress report on the project and whose responsibilities will be gradually extended to the monitoring and evaluation of other projects implemented by the Ministry.

E. Implementation

The inland artisanal fisheries development project began in 1964 and its activities were mainly limited to civil engineering works, study of site and initial training for extension workers.

Theoretically, the project would have been completed by December 1988 but it is now about two years behind the original schedule.

It was only in April 1987 that the project started the activities connected with the marketing of smoked fish, the selling of fishing items and medical products.

The results of activity periods 1987, 1988 and first quarter 1989 are as follows :

1987 (June - December)

- Smoked fish bought from fishermen	57,230.3 kilogrammes
	46,368,700 F CFA
- Smoked fish sold	51,544.34 Kilogrammes
	60,964,756 F CFA
- Result +	8,156,421 F CFA
- Fishing items sold to fishermen	12,354,026.5 F CFA
- Medical products	426,315 F CFA

1988

- Smoked fish bought	73.7 tonnes
	56,635,300 F CFA
- Smoked fish sold	71.5 tonnes
	66,305,880 F CFA
- Fishing items sold	13,435,175 F CFA
- Medical products sold	339,410 F CFA

1st quarter 1989

- smoked fish bought.	7,346 kilogrammes
	6,036,650 F CFA
- smoked fish sold	2,860.7 kilogrammes
	2,995,150 F CFA
- fishing items sold	3,652,590 F CFA
- medical products sold	38,875 F CFA

An overall evaluation of the benefits derived from the project may be premature. However, a first critical examination reveals that the development process has been wrongly oriented and that much remains to be done to ensure long term viability and profitability for artisanal fisheries in the Congo basin.

A trial has been initiated jointly with the FAO food crops production project to supply fishermen with basic food crops, namely cassava. This operation only took place in 1987 and receipts amount to 60,000 F CFA.

Other services and facilities planned under the project are yet to be achieved ; that is :

- Mechanical courses on the working and maintenance of and small repairs on fishing outboard motors ;
- Provision of a number of support services to the project in the main fishing villages.

Fisheries centres :

- Incentives towards the formation of small groups in the main villages with a view to improving and facilitating the collection of fish in the various fishermen's camps ;
- Increased education, of primary health assistants in association with a good supply of drugs.

The Community Fisheries Centres, with the exception of fishing and medical items shops, are yet to receive the planned infrastructures (lodgings for centre heads, offices, fuel tanks, demonstration smokers and equipment for radio communication.

F. Problems encountered

The project was launched without a prior study of fish stocks existing in the area and was based on an overestimation of catches.

Generally speaking, the project suffers from a lack of an in-depth study showing the size of demands at the various sales points, their variations, sale circuits and intermediaries, pricing and discount habits, etc.

The selling of smoked fish bought from fishermen is not always easy as the market is glutted, causing long storage periods.

As a result of the project's intervention method which consists in grouping extension activities with those of fish collection, greater attention was given to marketing activities related to fish collection.

The marketing of fishing and medical items to fishermen has been in progress since 1987 without a preliminary study as regards price and trade margins.

C. Future prospects

If the project has reached its ends in terms of implementation period, it has achieved very little in terms of deployment (CFA 2.6 million budgeted initially are yet to be mobilized and in terms of objectives 70 tonnes of fish have been marketed against the target of 800 tonnes).

The assumptions made concerning the marketable surplus, the quality (species and smoking quality), catches and price when preparing the project are now called into question.

The slowness in establishing the infrastructures, the recruitment of specialists and their poor performance have not only held up the progress of the project but also harmed its image and credibility as a means of solving fish production and marketing problems in the project area.

Consequently, all the parties concerned by the realization of the project have agreed on the necessity of thoroughly reshaping it in order to allow progress on sound and non hypothetical or unrealistic bases.

Review of reorientation will consist in :

- extending the project for another two years
- reviewing objectives and actions
- restructuring the means that are implemented
- redistributing available funds.

Done in Brazzaville, 17 May 1989 by Georges Bolondo,
Director General.

Appendix 8

INITIAL DIFFICULTIES ENCOUNTERED IN THE IMPLEMENTATION
OF THE PROJECT - GHA/88/004. "INTEGRATED DEVELOPMENT
OF ARTISANAL FISHERIES IN YEJI

1° PROJECT'S HISTORY

The Project GHA/88/004 "Integrated Development of Artisanal Fisheries in Yeji" is the first inland fisheries project designed by IDAF. Its involvement is as early as the end of 1986 when a mission concluded that perhaps the best setting for an Integrated Fisheries Development Project would be on the Volta Lake, the largest man-made lake in the world. The lake has an estimated annual fish production potential of some 40,000 MT and had almost since its creation been the site of an ambitious UNDP/FAO Integrated Development Project.

The technical assistance to this Project ended in 1977, by which time it was being run by a highly skilled and well trained team of nationals under the name of Volta Lake Research and Development Project (VLRDP). However due to economic/political reasons a gradual decline occurred and in early 1987 the project was formally terminated. In the beginning of 1987 it was then learned that UNDP had included an Integrated Fisheries Project in the pipe-line of its Ghana IPF-cycle and IDAF was asked if it could help prepare such a Project. IDAF agreed and consequently several points along the lake were visited, including Yeji, which already in the early stages of the previous Volta Lake integrated project had been indentified as the fish landing site most in need of a fisheries complex after Kpandu Torkor pilot scheme. The IDAF mission concluded that this was probably still the case today.

One major problem remained, the lack of updated information on the fisheries situation on the lake in general and in the Yeji area in particular, especially in light of the changes lowering lake levels since 1981, with an absolute minimum in 1984. It was concluded that detailed background study would have to be undertaken as soon as possible, preferably before the formulation of a Project Document. However, time pressure was becoming a factor as UNDP wanted the project to start within the then ongoing IPF Cycle.

In October, 1987 the draft Prodoc itself was prepared and discussed in detail with the Government and UNDP. The UNDP inputs were estimated at about 1.3 million dollars over three years. At various occasions it became obvious that UNDP was greatly interested in financing the project and in February/March, 1988

during UNDP's first visit to Yeji, the community elders there were also told of UNDP's intention of bringing in 1.3 million dollars for the establishment of a Community Fisheries Centre (CFC). However shortly after this visit UNDP requested a rewriting of the Prodoc with a drastic cut in the budget to the ceiling of 700,000 US \$ for local approval of the project.

As a consequence, the proposed project was shortened to two years with the clear implication that this would represent only the first phase of a longer project as one could not hope to construct and organise a CFC and all its related activities in only two years. An unfortunate consequence of the budget slashing was that the portion allocated for construction (sub-contracts, equipment) had to be reduced significantly in order not to exceed UNDP's rules limiting the size of such budget lines when approved by a country representation rather than by New York HQ. As a result of considerable pressure from UNDP the Ghana Government and FAO approved the document almost in a record time and the Prodoc was with the arrival of the CTA in Ghana.

2. DESCRIPTION OF THE PROJECT LOCATION: (MAP)

Yeji is a very important commercial town in the Brong-Ahafo region. Its main attraction is the presence of a very large fish market probably the largest inland fishmarket in Ghana. In all, 190 fishing villages of varying sizes along the Volta sell their fish at Yeji. A recent review of the fishing situation at Yeji by Agyenim-Boateng, 1989 showed that in these 190 villages there are 15,581 fishermen, 4,266 canoes, 90 transport boats and 6,569 fish processors. Fish from Yeji market is purchased mostly by a total of 612 wholesalers who come from Accra, Kumasi, Sunyani, Ho, Koforidua and Tamale in an average of 36 vehicles. Apart from the fish trade a total of 972 traders also attend the market from outside for the purpose of purchasing other assorted items. Due to the volume of trade the number of push-trucks has increased to 140. Also observed are 8 chop bars, 62 kiosks/stall/stores, 15 carpentry shops, 16 cormills and 29 salt dealing enterprises, all operating within the market area.

For a small town as Yeji the presence of all these business concerns in such high magnitudes makes the town uncomfortably choked. On market days the atmosphere is chaotic and dangerous as the roads are full to capacity by pedestrians, trolley pushers and mummy trucks all struggling for space to move their wares.

In order to bring sanity and order and to enhance the effectiveness of the market a tripartite agreement signed by the Government of Ghana, United Nations Development Programme and Food and Agricultural Organisation in 1988 set up Project GHA/88/004/A/01/12 officially designated "Integrated Development of Artisanal Fisheries at Yeji".

3° PROJECT AIMS AND OBJECTIVES

The Programme aims at improving the living conditions of over 75,000 inhabitants, connected to the Volta Lake, through the construction of a Community Fisheries Centre (CFC) with facilities for fish preservation and marketing including the provision of training of 15,000 fisherfolk over 6,500 of whom are women. The Project will also provide essential services to Yeji township in the form of health clinic, day care centre and portable water.

A marketing information system and a management plan will be developed for implementation in a second phase project which will be designed to enhance the operation of the CFC as a selfsustaining venture.

The roles of women and private sector are adequately covered in the project viewed from the predominance of women among the target beneficiaries and the involvement in the Project of private entrepreneurs composed of boat builders, outboard engine mechanics, transport operators and fishing gear dealers.

4° IMMEDIATE OBJECTIVES : -

- a. Establishment of a Community Fisheries Centre with basic facilities and services to meet the needs of over 75,000 fisher-folk.
- b. Preparation of a management plan for the operation of CFC on selfsustaining basic.
- c. Integration of additional women and youth into the fisheries and related income generating activities through training.

5° BUDGET:-

Government of Ghana contribution: 97,325,800 - cedis.
UNDP Contribution: 713,306 US \$

6° SPECIFIC PROJECT BENEFITS

- a. Establishment of an improved integrated marketing facility e.g. provision of sheds for wholesale and retail trade, stores and lock-up stalls.
- b. Installation of statistical data collection for monitoring of lake resources for proper management of Lake Volta fisheries resources.
- c. training to improve outputs in existing jobs e.g outboard motor repair, fish handling and processing, and simple book keeping.
- d. Training of youth and women in other alternative commercial activities e.g dry season gardening, pig rearing.
- e. Supply of inputs e.g outboard motor tools and spare parts.

- f. Other additional benefits would be the establishment of the following: Day Care Centre, Dispensary, Portable Drinking Water, Sanitation, Electricity.

7" PROGRESS AND OUTPUTS OF PROJECT

The Project started on the 05th of January with appointment of the CTA. The field work started on the 18th of January with the CTA's arrival in Ghana.

Prior to the CTA's arrival the consultant Mr. Agyenim Boateng, Sociologist recruited by the IDAF project in Cotonou, had started his work on 04th of January, 1989. He presented his preliminary report, "Report on the socio-economic conditions in the fishing communities in the Yeji area of the Volta Lake", on the 04th of May, 1989. The final version is due at the end of Sept. 1989.

The CTA settled in the Yeji, his duty station, on the 02nd of March after frequent trips from and to Accra. The National Director reported on duty on the 20th of february, and settled on the 10th of May.

The selection of the site for the construction of the Community Fisheries Centre was the first task to solve. Prior various sites had been earmarked, in October, 1988 and more recent by the "Yeji Fisheries Complex Committe" in January, 1989.

The time pressures in connection with the preparation of the prodoc never allowed for detailed background studies which ideally should have been undertaken before the document was signed. This meant that number of points were left open in the prodoc such as e.g. the site selection and the actual design of the CFC which would have to be done once the project was being implemented.

Soon it became clear that without a map it would be impossible to take a decision and oversee the consequences for preparations, prior to the construction of the area. In collaboration with a consultant and through the services of a surveyor, the survey work was undertaken and the preliminary result presented/discussed at the end of May. The survey served two purposes; first the identification of a site for the construction of the CFC, second the detailed mapping of a new proposed ferry landing site. Both purposes served the same aim since at that time still a combination of CFC and ferry landing site was envisaged.

Later this concept was abandoned. For the selection of a site for the construction of the CFC initially two conditions were taken in consideration. First the centre should be as close as possible to the lake and secondly the availability of "cheap"

grounds (above 86 meters spill way level) for extension and area to accommodate CFC related activities. As minimum size for the CFC a surface of 2 hectares was taken.

Plots of two hectares were consequently placed on the map in the lake bank area in front of Yeji, suitable for the implementation for the CFC.

It became rapidly evident that in all prospected areas (4 in total) extensive filling work had to be undertaken avoiding not only during the annual water level fluctuation (up to 6 meters) of the lake but also during the long term cyclisch weather conditions of droughts and heavy rainfall varying the water level up to 12 meters which with gentle sloping banks represent enormous land surfaces.

When tentatively, based on the socio-economist report, a size estimation of the CFC was undertaken, resulting in an area of 4 hectares, it became clear to all parties involved that the work to be done as mentioned in the prodoc was more complex than originally thought.

The project duration of two years would not allow the implementation of the CFC and its budget due to cuts and inflation was totally inadequate.

Reflections resulted in the recommendation to rewrite the project document and search for adequate funds. In addition, that substantial outside assistance (consultants) is necessary for planning and construction.

For the moment two major aspects have still to be solved:

- To what extent the area earmarked for the construction, the actual existing market, has to be lay out in order to fulfill the project commitments which are described but not in to what extent.
- How should the processes of the building be.
 - By contract to construction firm or
 - According to the lines of thoughts of the prodoc step by step and with heavy local involvement.

In the meantime the District Assembly has on their priority list the construction of a central market in Yeji on partly prepared land not bording the lake side.

While the prodoc is being rewritten, UNDP-Accra has approached their HQ in New-York and the Japanese Embassy in Accra to obtain Japanese funds earmarked for undertaking land surveys, preparation of master plans and construction of infrastructure. The results of both efforts will be discussed during a tripartite review in October.

Beside the above mentioned activities the project with the assistance of a Japanese volunteer collected additional data on the trade activities during the market days and on fresh fish landings in and around Yeji. A report is forthcoming.

For future activities a work-plan, taken in consideration the "delayed" building activities, has been prepared.

8° TRAINING ACTIVITIES

None

9° PROBLEMS ENCOUNTERED AND ACTION TAKEN

The inadequate project document will be revised and discussed during a tripartite review.

The housing problem in Yeji for both National and International Staff prevents the completion of the national team in Yeji and will create problems with the arrival of international Consultants Experts.

Action has been taken by the Central Government to solve in the near future part of the problem through renovation and the construction of prefabricated housing. In the long term the budget, out-dated due to inflation, has to be revised.

The bad condition of the roads makes travelling burdensome and time consuming especially in the actual rainy season. Transport of equipment by boat on the Volta lake is possible but difficulties are encountered in getting the goods to and from the harbour/landing site.

In the meantime however this problem has been solved and 2 containers have already arrived.

10° TECHNICAL FILED DOCUMENTS

- Preliminary report in the Socio-Economic conditions in the Fishing Communities in the Yeji-area of the Volta Lake, E.C. Agyenim Boateng Sociologist consultant, May, 1989
- Preliminary data on trading and fresh fish landing activities in Yeji S. Yamamoto, June, 1989.
- "Review of the Kpandu Torkor fisheries complex experiences", by C.E. Agyenim Boateng, Sociologist July, 1989 (Draft).

11° LITERATURE

- Notes on the preparation of the yeji project, Gha/88/004 by J. Haakonsen, June, 1989. 4pp.
- Six monthly report, project GHA/88/004 July, 1989, 4pp.
- Work-plan 1989 - 1990, Project GHA/88/004, August, 1989, 27pp.
- Annual Budget Estimates, 1990 Project GHA/88/004, August, 1989, 19pp.

W. Scheffers and L. Braimah

yeji, September, 1989.



Ghana, Yeti Project

Appendix 9.

INTEGRATED ARTISANAL FISHERIES DEVELOPMENT

PROJECTS IN THE GAMBIA.

Paper presented by Ousman K.L. Drammeh

INTRODUCTION

The artisanal fishery of The Gambia is divided into three administrative areas, namely, the Atlantic/Marine coast stratum which is characterized by marine waters; the Lower River stratum which is characterized by brackish waters and the Upper River stratum whose waters are fresh most of the year. The 1% salinity boundary moves up to as far as Kuntaur (in the Upper River stratum) 150 km upstream during the dry season and moves as far downstream as Balingho (in the Lower River stratum) 80 miles from the estuary during the wet season. The Lower River and Upper strata are further sub-divided into: North and South Banks.

The artisanal fishery is dominated by small-scale private entrepreneurs of either Gambian or foreign origin, operating individually or in informal groups. It was estimated (1988) that 1451 such fishing economic units operate in both the coastal and inland waters of the Gambia. Despite the small-scale nature of their operations, these units provide over 90% of the total local fish consumption. They also serve as contract suppliers to some indigenous industrial fishing companies for the supply of shrimps, lobsters and high-value demersal fish; thus creating a vital linkage between the two sub-sectors of the fishing industry.

Generally, the product of the artisanal fisheries is either bartered or marketed without any form of official recording, thus making economic evaluation of the output difficult. Nevertheless, indications of the social and economic values of the sub-sector abound. It was estimated that in 1988 the artisanal sub-sector employed a total of 1579 fishermen of which 476 were engaged in coasted fishing and 1103 were engaged in inland fishing. Because of the part-time nature of the activities of some of the operations, these employment figures of the artisanal fisheries sub-sector are subject to wide seasonal fluctuations. In addition to the number of people employed as fishermen and fishing assistants, the sub-sector provides substantial employment opportunities for many other people as ancillary workers in such areas as boat building, fish processing (drying and smoking), fish mongering and fish landings (those who assist in pulling canoes ashore and those who assist in evacuating fish from the canoes).

The artisanal fishery sub-sector also contributes to efforts in improving the nutritional status of the Gambian people. Estimates put the per-caput consumptions of fish at about 20 kg which is above international standards and that fish accounts for about 14-15% of the total protein supply in The Gambia.

Government's development efforts for the artisanal sub-sector started in the early 1970's but (because of the limited resources: expertise, human material, of the technical Department of Fisheries at that time) were limited to training programmes for fishermen and fisheries mechanics and the provision of credit facilities to fishermen to improve upon their fishing crafts, fishing gears and related equipment. Fisheries extension activities were at a minimum with few extension officers stationed in a few big fishing villages.

Government efforts are mainly channelled through development projects for the sub-sector whose funding are mainly from donor agencies/countries, however, Government is also assisting in trying to reduce the high operational costs of artisanal fishing operations by providing duty-free outboard fuel and by lifting the import duty on fishing gears and related equipment.

LOME II PROJECT

This Artisanal Fisheries Development Project using the Community Fisheries Centre (CFC) approach was first commissioned in the Gambia in 1983 with the construction of the Gunjur Fisheries Centre under the EEC financed Lomé II Project worth US\$2.7 million. Apart from the Gunjur Centre, other components of the project were:

- (a) an ice-making plant of 10 ton/day capacity at Brikama,
- (b) about 26 km of feeder road linking 6 coastal villages to fish landing sites,
- (c) rehabilitation of the bridge at Tanji,
- (d) a fishermen training programme
- (e) a revolving loan fund scheme
- (f) technical assistance (assisted by Fisheries Department staff)

Evidence abound as to the successful implementation of the Lomé II Project, although a study on the socio-economic impact(s) of the project has as yet to be carried out. Carrying out such a study may prove somewhat difficult because it is/maybe a peculiarity to The Gambia that there are no fishing villages. The fishermen, fish processors, fish mongers, boat builders etc. live in the village proper, next door neighbours to people of different professions/trade. The project, however, marked the beginning of a decisive yet very positive change in the artisanal fisheries of The Gambia both in terms of Government policy for the development of the sub-sector and, in the general improvement

of the lot of the fisherfolks. It was the first time that all artisanal fisheries related activities were centralized within the Centre, from collection to processing, storage and marketing. One year following project implementation, the Gunjur Fisheries Centre became self-sustaining providing its own funds (from payments of rentals of facilities of the Centre) for the maintenance and upkeep of all facilities; payment of wages to watchmen and in meeting fuel bills to run the generator for freshwater suppliers. The Centre is still growing, more lockers and more fish drying platforms are being constructed upon demand and the smoking huts are increasing. The fishermen are also increasing and with improved fishing crafts, gears and techniques, fish catch in Gunjur has been increasing correspondingly. The Gunjur Fisheries Centre is a success story, maybe because it is a blessing to the Gambia that villages are located at considerable distances away from the sea/river. In Gunjur, for example, the village is 4 km away from the beach and it may be rather obvious that the fisherfolk will utilize fully the facilities provided at the Centre, they would have been forced to transport them to and from the village each fishing day. The introduction of ice in artisanal fisheries did not happen overnight, it took a lot of demonstrations and persuasions for the fishermen and fishermongers to accept. Four years after implementation, the Brikama ice plant was leased to a private entrepreneur under the Government's divestiture programme and the plant is now a profitable business venture selling all the ice it produces. The principal customers are the artisanal fish merchants engaged in fish marketing in the inland areas. Similarly, the fishermen training programme was/is also self-sustaining. Proceeds from the sale of fish are used to meet operational costs, pay allowances to trainees and to purchase fishing nets and related equipment to replace old ones. The feeder roads have opened up previously dormant beaches (Batokunku/Tujereng) and have made communication less of a problem. Radio links between headquarters and the project villages was the biggest development of all because contact with headquarters is now each day of the week.

THE LOME III PROJECT

Commissioned in January 1988 at an estimated cost of 25 million, this project is modelled after the 1983 Lomé II project and the Italian Government funded project (to be referred to later) implemented in February 1987. The Lomé III project will develop artisanal fisheries activities in six coastal fishing villages of Kartong, Gunjur, Sanyang, Batokunku/Tujereng, Tanji and Brufut. This project will :

- (a) establish a fuelwood plantation as a conservation measure,
- (b) construct a fish landing jetty at Tanji (the first of its kind in The Gambia),

- (c) construct a 3 tonne per day capacity ice plant at Tanji,
- (d) supply ten 2-tonne capacity fibre glass fishing vessels and a river transport vessel for inland fish marketing,
- (e) install windmill well pumps for provision of water for domestic, fisheries, livestock and horticultural watering purposes,
- (f) Community Fisheries Centres are being constructed in the villages of Brufut, Tanji, Sanyang and Kartong. The village of Gunjur has a Centre (1983) and Batokunku/Tujereng has a mini-centre (1985),
- (g) British VSO volunteers have been recruited to work with village - based women groups; in functional literacy programmes as well as in fisheries related activities in the areas of management and organization of the different interest groups. Local based literate women have been recruited (6) to work with the volunteers and fisheries staff.
- (h) implement a training programme for fishermen especially in the use of the fibre glass fishing vessels and their sophisticated gear and
- (i) a revolving loan fund scheme component.

Civil works have been progressing satisfactorily despite some delays during the rainy season and all construction works are scheduled to be completed by mid January 1990. The construction of the landing jetty is also expected to be completed in January 1990. International tenders have been invited for the supply of fishing vessels, ice plant and machinery and other project related equipment. Bids are to be opened in February 1990 and, hopefully, all components will be in place 3 months later.

It is foreseen that the CFCs in five out of the six villages will be successful. It was mentioned earlier that fishing villages along the southern coast are located at considerable distances from the sea. Of the six project villages, the closest to the sea are Brufut and Tanji about 2 km away and the farthest is Gunjur about 4 km away. The sixth village, Kartong, will require a combination of intensive fisheries extension work and active and total community participation for the CFC to be successful year round. The village has always been active when migrating foreign fishermen arrive and is virtually inactive after they depart. The villagers have been part-time fishermen for a long time, although they have been very active in pre-construction activities. Mindful of the part-time nature of this fish landing site, only a small CFC will be constructed but a lot of land area reserved for further expansion if warranted by positive developments following

project implementation.

THE KEMOTO AND TANKULAR PROJECT

This project was implemented in February 1987 under the CFC approach with funding from The Government of Italy totalling D11.775 million. Unlike the EEC funded development projects which are based along the Atlantic coast, the Italian project was the first major development project in the inland fisheries.

Before the project, the villages of Kemoto and Tankular were virtually isolated from the rest of the country. Kemoto village is about 198 km from Banjul and 58 km inland from the main highway at Sankandi. The village had a population of 256 people comprising mainly women, old men and children; all the able-bodied young men having left the village in search of better living. The village has no primary school, the nearest is 7 km away with school-age going children commuting daily on foot. The nearest health centre is about 17 kms away from the village. The land around Kemoto is either rocky or swampy making agriculture an unyielding profession. The closest freshwater well to the village is 1.7 km away with the women making a minimum of 2 trips per day to fetch water.

The village of Tankular is about 166 km from Banjul and about 35km inland from the main highway at Sankandi. The village has a primary school with 6 classes and a student population of 82. The school has no furniture with pupils sitting on goat/sheep skin mats. The village has a primary health care worker but has no clinic. The population is 666 with the males mainly as farmers and or part-time fishermen and the females are into rice farming and gardening.

Fishing activities in the two project villages were at the subsistence level, fishing canoes were limited to a few small-size dugout canoes and the fishing gear were found to be inadequate and outdated for successful fishing operations. There was only one motorized canoe in the 2 villages (in Kemoto). There were more fishermen than fishing units in the 2 villages.

The project aimed at answering the most elementary needs for food and safe water supplies for the two villages and to transform the local fisheries from their subsistence levels into truly economic activities capable of generating employment opportunities and raising the per capita earnings of the fisherfolk. It was/is the opinion that the opportunities to be created by the project will help to bring about economic and social development of the two villages and considerably reduce their level of isolation from the rest of the country.

For the attainment of the objectives, the project attempted to stimulate increases in fish production through the provision of

fishing inputs (canoes, engines and nets) to the fishermen on soft-term credit basis. Associations for fish processors were established and Fish Marketing Associations set-up in each village. Small cash loans were provided to the Associations to help them start their respective activities. Technical assistance was provided by an Italian firm IDROCONSULT SPA with assistance from Fisheries Department field staff attached to the project. A training programme for fishermen and a training programme for mechanics were launched simultaneously.

A Community Fisheries Centre of modern design and fittings (lacking only an ice production unit) was built in each village so was a borehold to provide water for domestic and fisheries purposes. In addition, the project provided two insulated vehicles for fish marketing purposes.

Village labour was utilized in the construction of the infrastructures (9% of the population of Tankular and 21% of the population of Kemoto were under employment to the project during the construction phase). Following the construction phase, the fishermen were divided into groups of 3 and gradually fishing units were being introduced.

Before the commencement of the fishing phase of the project in November 1987, an average of 3 fishing units were operating per village. Nowadays, an average of 14 fishing units and 12 fishing units are actives in Kemoto and Tankular respectively. It was the aim of the project to establish a total of 20 fishing units per village. Apart from the fishing units established in the project villages, fishermen from the satellite villages of Jali, Keneba, Jouli, Janneh Kunda, Karantaba and Burrong have been benefiting from the project in the forms of fishing equipment on soft-term credit. Fishermen residing away from the district have also been benefiting from the project. Fish distribution in the district has been greatly improved and the population of Kiang West District are now getting regular fresh fish supplies at affordable prices.

Although one of the fish marketing vehicles (that of Tankular) has been grounded following an accident, private fishing companies and independent fish buyers are now frequenting the project villages to buy fish. The feeder roads in the district have also been improved upon and there is now a daily bus service to Kemoto. Detailed fish production statistics catch by species and values and number of fishing days have been collected on a daily basis from each of the fishing units for a period of one year (July 1988 - June 1989). The data are presently being analysed and the results will be presented in a yearbook. However, an attempt was made to compare fishing and farming to determine which economic activity will bring more and faster economic benefits to the villagers. The fish catches and earnings of 20 fishing units in 3 months (10 from Kemoto and 10 from

Tankular) were compared against the earnings of the good agricultural farmer (by village standards) who produces 50 bags of groundnuts per harvest. Using the 1988 official groundnut retail price of D68.40 per bag, the good agricultural farmer will earn a gross amount of D3,4200.00 per annum. This amount does not include loan repayments due for fertilizers and or seeds. It was found out that 6 fishing units in Tankular and 8 fishing units in Kemoto made more money in 3 months of fishing than the good agricultural farmer will earn from one year of farming. Nowadays, much needed goods are reaching the villages as evidenced in the increase in the number of retail shops (from 2 to 4 in Kemoto and from 2 to 5 in Tankular).

However, not every aspect of the project was golden, the fish smoking ovens are underutilized because of the seasonality of fish species suitable for smoking. The fish marketing associations have had serious teething problems and even today (one year after establishment) the fish marketing association in the village of Kemoto is still struggling to stay in business. There is a definite problem in the incompatibility of its three members; the association is currently being restructured. However, the most serious problem facing the project is the use en masse of the Ruggesini Diesel outboard engines which were introduced by the project. A separate paper is being prepared (by the Department of Fisheries) to highlight the faults/problems of these engines and how they are affecting the performances of the fishing units.

THE ITALIAN GOVERNMENT PROJECT N°.2

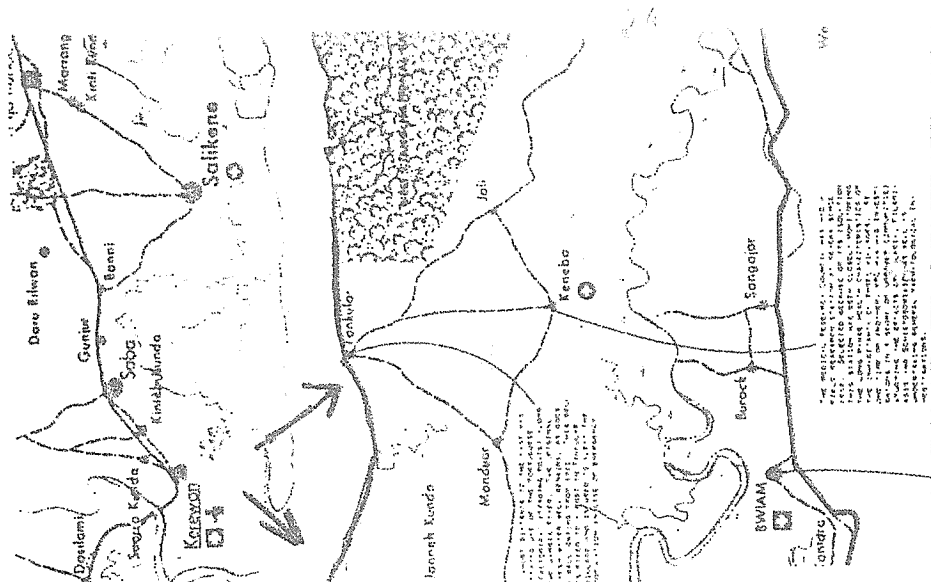
The Government of Italy has approved an estimated sum of D 45 million to replicate the Kemoto/Tankular project in five inland fishing villages: Bintang and Tendaba on the south bank of the river and, Albreda, Salikene and Jurunku on the north bank of the river. Project implementation is scheduled to start in early 1990. Apart from various development projects mentioned earlier, this new project will also have a salt production component.

CONCLUSION

It is projected that by the end of 1990, there will be operational a total number of 13 CFC's in The Gambia (6 CFCs along the coast and 7 CFCs in the inland area-lower river). Considering that the first CFC in The Gambia was constructed only six years ago, it can be said that the rapid increase in the number of CFCs is a direct reflection of the fact that artisanal fisheries development projects are being successfully implemented. As far as The Gambia is concerned at least for the time being, the CFC concept offers the best route(s) toward the realisation of national development objectives. Government is very comfortable with this approach to development and it is foreseen that with this approach, the artisanal sub-sector will

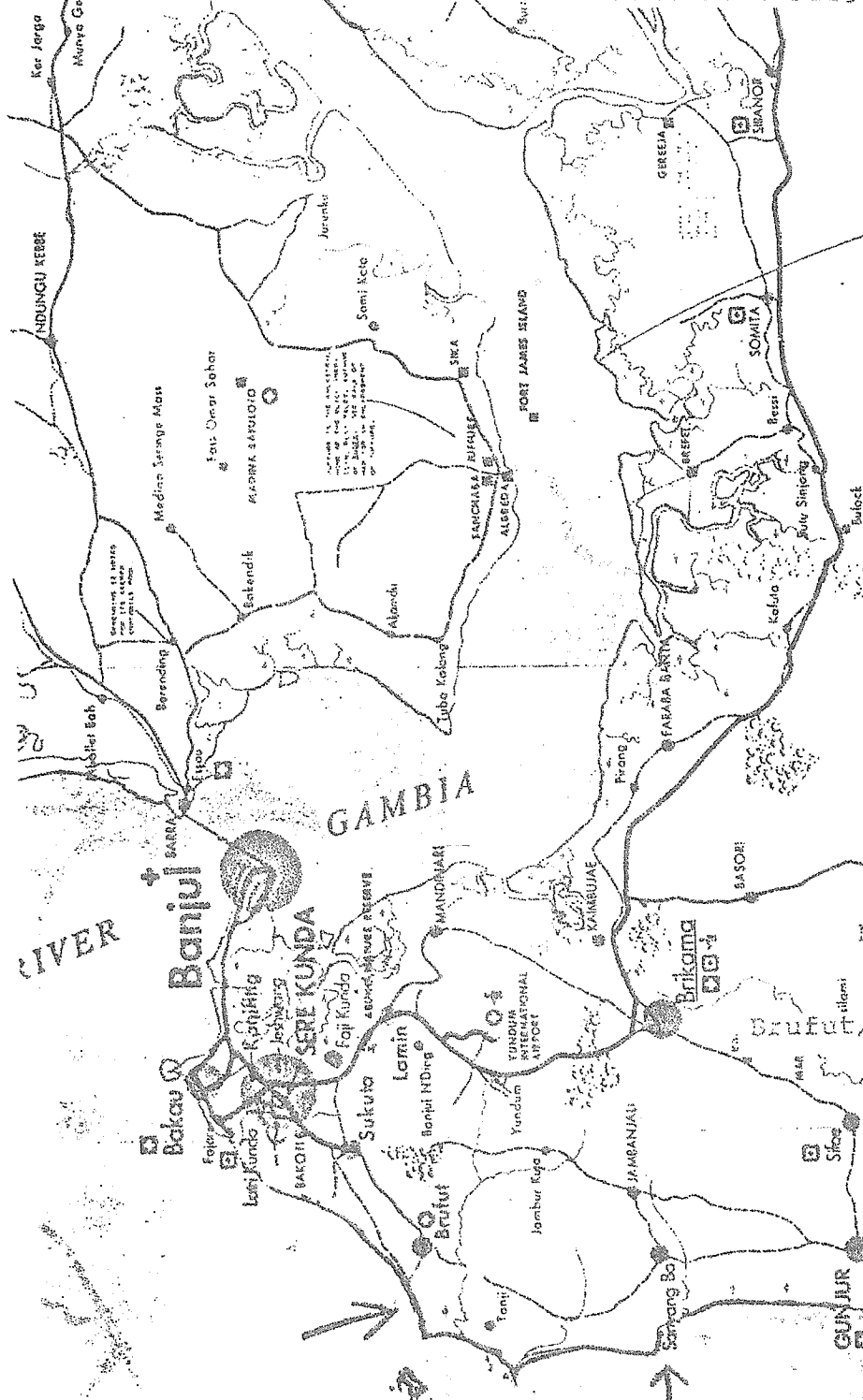
make significant contributions to the national economy and that Government may be able to attain the following national development objectives of :

- a) increase in productivity and total production;
- b) improvement in the level of food security and enhancement of the nutritional status of the population;
- c) increase in meaningful employment opportunities;
- d) improvement in the livelihood of the dependants of fishermen, processors and retailers;
- e) enhancement of foreign exchange earnings through expansion and consolidation of the product transfer link with the industrial sub-sector and
- f) creating a balanced ecosystem for posterity through enhancement of rational exploitation and management of fisheries resources.



Gambia,

Estuarine Project : Tankular/Kemoto



Marine Project :

Brufut/Tanjil/Sanyang/Gunjur

Appendix 10.

LE PROJET KABACK: PRESENTATION DE F. NOEL

<u>TITRE DU PROJET</u>	Projet Pilote pour le Développement Intégré de la Pêche Artisanale à Kaback.
<u>NUMERO DU PROJET</u>	GUI/87/025
<u>MINISTERE DE TUTELLE</u>	Sécrétariat d'Etat à la Pêche (S.E.P/M.A.R.A)
<u>AGENCE D'EXECUTION</u>	F.A.O.
<u>SITE DU PROJET</u>	Ile de Kaback, Préfecture de Forécariah Guinée Maritime
<u>DUREE DU PROJET</u>	3 Ans
<u>ETAT D'APPROBATION</u>	1.06.88
<u>DEBUT D'ACTIVITE</u>	1.06.88
<u>MONTANTS DES CONTRIBUTIONS</u>	
Gouvernement :	En nature
P.N.U.D :	650.000 US DLRS
C.E.E. :	250.000 ECU
Ambassade du Canada en Guinée: 50.000 DLRS Can.	
<u>OBJECTIFS IMMEDIATS</u>	

- Assister les 500 pêcheurs de l'île de Kaback et leurs familles à développer la productivité et la rentabilité des activités liées à la pêche artisanale;
- Identifier et appuyer d'autres activités productives génératrices de revenus;
- Fournir une assistance spécifique aux femmes: dans un premier temps, pour améliorer leurs techniques de transformation, stockage et commercialisation du poisson et, dans un deuxième temps, pour les appuyer dans l'identification et la mise en oeuvre d'autres initiatives devant contribuer à leur bien être;
- Fournir un modèle reproductible au niveau national, et un développement autonome basé sur le potentiel des opérations de la pêche artisanale telle qu'elle est pratiquée par les

- Fournir de l'assistance aux autres projets de pêche artisanale en Guinée par la création et la formation d'unités de développement de la pêche (UDP) ainsi que par le renforcement des structures nationales chargées de la pêche et/ou de développement communautaire des pêcheurs.

ETAT D'AVANCEMENT

En 1988

- Installation d'infrastructures (construction de l'atelier mécanique et du magasin de vente de matériel de pêche, aménagement et réhabilitation de locaux pour hébergement et activités de l'équipe du projet, à Matakang etc...);
- Identification de bailleurs de fonds pour appuyer les interventions (CEE, Ambassade du Canada en Guinée), sélection du matériel et équipement par appel d'offre;
- Réalisation d'enquêtes sur le site pour identifier les contraintes technologiques et économiques des activités de pêche et transformation du poisson (mission DIPA). (Voir document de travail N°.1 Mars 1989);
- Stages et séminaires de formation (Voyage d'étude du Directeur National au projet modèle au Bénin au projet intégré de Shengué en Sierra Leone).

En 1989

- Réception et acheminement des équipements et matériels et équipements financés par l'Ambassade du Canada et la CEE;
- Réalisation d'une enquête socio-économique dans les trois communautés cibles - Matakang, Khunyi et Konimodia -, en collaboration avec le Centre de Recherche Halieutique de Boussoura (Conakry) Financement DIPA, rapport de mission de Mr. Hervé BRU, mai 1989);
- Animation villageoise pour définir les modalités appropriées, à la création de groupements communautaires acceptables par la population et adéquats à la participation à l'exécution des interventions sélectionnées (document de travail N°.2, juillet 1989);
- Identification au niveau national (Ministères, Banques, projets, textes légaux) des systèmes de vente et de crédit adaptés aux besoins des villageois et permettant la création d'un fonds de roulement viable; (Document de travail N°.4, Août 1989);
- Inventaire sur le marché national des prix de vente de divers engins de pêche; calcul des prix de vente des engins de pêche et matériels reçus sous forme de don; recherche d'une péréquation des prix de cession des matériels et équipements et soumission d'un dossier auprès du Secrétariat d'Etat à la Pêche pour obtenir l'autorisation de vente;
- Rencontres avec les villageois pêcheurs pour détermination des besoins et des priorités individuelles en matière d'engins de pêche; définition des modalités de remboursement

- de ces engins;
- Réflexion, discussion et élaboration du système de fonctionnement et de gestion du Fonds de Développement Communautaire, de la Caisse de Crédit Villageoise, du Fonds de Fonctionnement et du Fonds d'Equipement (Document de travail N°.3, Juillet 1989);
 - Structuration et formation de l'Unité de Développement de la Pêche: identification et définition des postes à pourvoir; recrutement; séminaire de planification de mini-projets organisé avec la contribution financière et l'expertise du DIPA et du projet modèle du Bénin (Document de travail N°.2, Juillet 1989);
 - Identification, expérimentation, évaluation et vulgarisation d'améliorations des techniques de production de poisson (ex: montage/assemblage de filets, ligne etc...); et des aménagements jugés utiles pour les embarcations (caisses isothermes etc...) formation des ressources humaines (mécanicien de l'UDP, menuisier pêcheurs (rapport de mission de Mr. J.F. Le Gurun, Consultant FAO/DIPA, Novembre 1989);
 - Etude exploratoire sur la transformation du poisson (Etude de l'activité d'une fumeuse de Matakang, (Rapport de Mlle Séverine Rempp, Consultante du projet GUI/87/025, Novembre 1989);
 - Mise en place du système de crédit, distribution du matériel dans les trois villages et fonctionnement de la structure de suivi assurée par les G.V.D et l'U.D.P;
 - Etude sur l'amélioration du fumage et de la commercialisation à Kaback, (Rapport de mission de Mr. Hervé BRU, Consultant FAO/DIPA, Novembre 1989);
 - Concertation et coordination avec les Bailleurs de Fonds, des responsables de projets similaires, des ONG;
 - Stages et séminaires de formation :
 - + Sur la participation populaire, le développement communautaire, la pêche artisanale, le crédit, etc...;
 - + Participation du Directeur National à un stage de formation à l'Université de Brest, France.

RESULTATS

- Mise en opération d'un atelier de réparation et d'entretien de moteurs Hors-Bord.

En attendant la mise en place des ateliers villageois de réparation, l'atelier central du projet a assuré la réparation et l'entretien des moteurs des pêcheurs de l'île de Kaback;

- Mise en opération du magasin de vente de pièces de rechange de moteurs hors-bord, engins de pêche et intrants utilisés dans la réfection des pirogues, et la construction de fumoirs etc.
- Structuration et formation de l'Unité de Développement de la Pêche. L'UDP est opérationnelle malgré le fait que des

- postes restant à pourvoir (voir annexe du document de travail N°.002, juillet 1989, description de postes);
- Appui à la création des structures villageoises de développement agissant comme partenaire du projet et de l'Unité de Développement de la Pêche, Conseil Villageois de Développement, Comité de Crédit, Groupe de base, etc...
 - Avec l'assistance de l'UDP, les groupements villageois ont procédé à la définition des principes de répartition du matériel disponible selon les besoins qu'ils avaient identifié dans chacun des villages (voir en annexe documents N°.002 et 004, juillet et Août 1989);
 - Expérimentation et diffusion de techniques de capture, de conservation, transport, emballage et commercialisation de poisson.

L'expérimentation de nouvelles techniques de montage de filets (ex: filets trémail) ainsi que les tests d'utilisation de ces types de filets ont été réalisées, mais une grande emphase a été mise sur l'amélioration des techniques actuellement utilisées par les pêcheurs de Kaback (ex: agencement et montage de leurs filets traditionnels, association de deux types de pêche traditionnelles utilisant le filet rega et le palangre, ceci dans l'optique de minimiser le sous-emploi du temps en mer et les coûts d'exploitation.

Les techniques de conservation du poisson (fumage par banda amélioré, mise en saumure, salage, conservation sur glace etc..) et plus particulièrement le fumage et la mise sur glace ont été testés dans le contexte socio-économique des villages. Des analyses détaillées des techniques déjà en utilisation ont été effectuées auprès et avec la population. Des modifications ont été suggérées aux pêcheurs, fumeuses et autres transformateurs. Ces analyses de base seront disponibles et concernent, par exemple, la fabrication de fumoirs sur briques stabilisées, la construction des caisses isothermes dans les pirogues, mais aussi des caisses isothermes en briques stabilisées sur le débarcadère utilisées pour le stockage de barres de glace et du poisson frais au village.

Le salage/fumage ainsi que le salage à la saumure ont été expérimentés. Les résultats techniques sont encore insuffisants pour évaluer leur adaptabilité au contexte de Kaback. Par ailleurs le potentiel économique des techniques testées sembleraient intéressants et méritent d'être examinées de façon plus approfondie de même que la viabilité financière et l'impact que ces améliorations auront sur l'augmentation et la redistribution des revenus au sein de l'unité familiale et sur la division sexuelle du travail etc...

L'application et la diffusion des améliorations techniques feront partie du programme de travail de l'UDP pour l'année prochaine.

CONTRAINTES

- Le manque de données socio-économiques et techniques fiables sur les communautés et certaines difficultés pour les obtenir du fait de la présence du matériel et des équipements, en stock dans le magasin de vente;
- La définition élaborée dans le document de projet des procédures de constitution et de renflouage du fond de roulement créé par la vente des engins de pêche;
- La question de la non convertibilité des recettes de la vente d'équipement;
- Les coûts unitaires élevés des engins de pêche fournis au projet par les Bailleurs de Fonds (plus chers que les engins équivalents disponibles sur les marchés locaux);
- L'absence d'orientation nationale claire sur les conditions de vente de matériels et équipements destinés aux pêcheurs;
- L'arrivée des matériels et équipements avant même que le projet ait des données socio-économiques fiables sur les communautés. La présence des stocks dans le magasin de vente contribua à biaiser certaines informations recueillies auprès des pêcheurs.

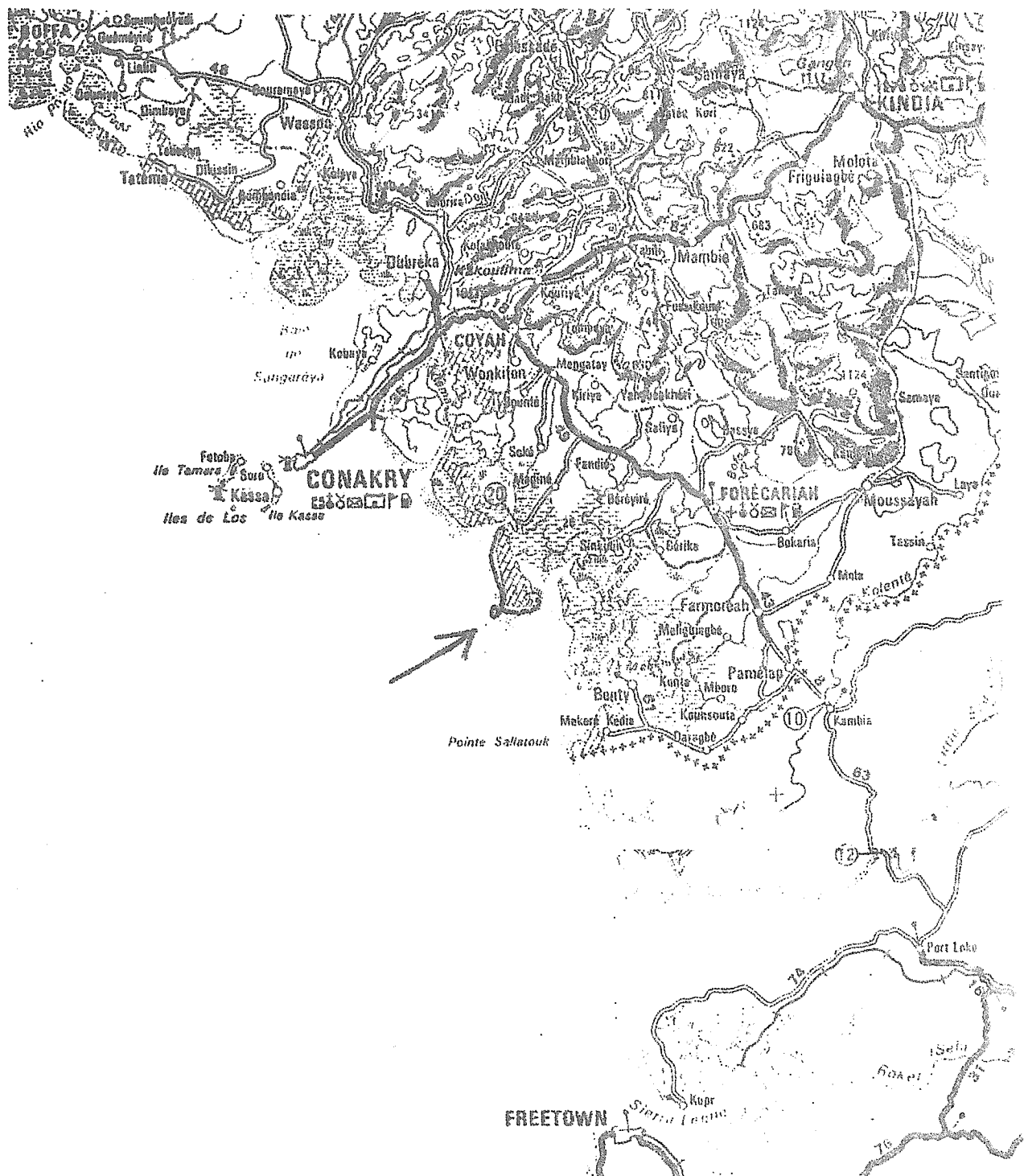
Les problèmes liés à la logistique : dépendance totale de Conakry pour l'approvisionnement; seul accès possible par voie maritime en raison de manque de ponts reliant Kaback au continent et du mauvais état des pistes sur l'île de Kaback;

- L'inadéquation des commandes de matériels (ex: insuffisance de filets 60mm de mailles étirées 210/6, de filets de 120/160 de mailles 210/24, 210/18 et 210/36; Par ailleurs sur abondance des filets 80mm), ainsi que le manque de pièces de rechange pour les équipements roulants, le bateau, les moteurs hors-bord etc...
- La vente à crédit n'étant pas envisagée dans le document de projet, la nécessité de définir un système adapté aux caractéristiques de la population cible, tout en essayant de tenir compte des systèmes mis en place (phase d'expérimentation) dans d'autres projets ruraux;
- L'exiguïté des infrastructures du projet;
- La concentration des activités du projet dans le village de Matakang et difficultés de communication avec les deux autres villages d'intervention;
- L'insuffisance des ressources humaines
 - + Nationales:
 - difficultés pour trouver des cadres présentant de profils nécessaires pour pourvoir les postes de l'UDP;
 - + Expatriés pour les postes de longue durée:
 - retard dans le recrutement des experts pour les postes prévus.

SOLUTIONS PRECONISES

- L'élaboration, la mise en place et de suivi soutenus du système de crédit;

- Des démarches auprès des autorités ministérielles, des banques et des bailleurs de fonds pour trouver une solution au problème de convertibilité des fonds obtenus par la vente des matériels et équipements;
- L'ouverture d'antennes du projet dans les autres villages de pêche de l'île (liaison radio, petite infrastructure, etc)
- Des commandes de matériels de pêche supplémentaires ainsi que des pièces de rechanges indispensables;
- L'appui à l'identification, planification et exécution de mini-projets mis en oeuvre par les communautés en collaboration avec l'UDP et des tiers.



Guinea, Kalaack-Matacamang/Khunyl/Khunylimodia

Appendix 11.

The Tombo Project : presented by A.C.V. Forde

1. General Information

The Fisheries Pilot Project Tombo is an integrated small scale (Artisanal) Fisheries Development Programme, jointly financed by the Government of the Republic of Sierra Leone and the Government of the Federal Republic of Germany.

1.1 Project Phases

The Project has been ongoing since September 1980, covering the following phases:-

- Phase I September 1980 - August 1983
- Phase II September 1983 - August 1985
- Phase III September 1985 - August 1987
- Phase IV September 1987 - August 1989
- Phase V September 1989 - August 1993

1.2 Funding: September 1980 - August 1989

Republic of Sierra Leone	3.34 Million Leones
Federal Republic of Germany	15.4 Million Deutsch Marks

1.3 Project Description

The plan of operations of the Project is carried out under three master sub-sections:

1.3.1 Technical:

- (a) Engineering Section which involves construction of improved wooden boats, introduction and installation of in-board diesel engines, maintenance and repairs of marine outboard and inboard engines and extension work through training programmes for boat owners, local mechanics and engine operators.
- (b) Fishing Technology, Fish handling, Processing and Extension. Introduction of improved fishing gear materials and fishing techniques. Introduction of improved handling and processing methods.

1.3.2 Commercial:

The Retail Store sells imported marine engines, equipment and spares. The revenues of the commercial activities of the retail store finance the operational cost of the project, its

extension programme and village developments.

1.3.3 Social and Community Development

Improvement of village infrastructure such as water supply, improved sanitary conditions, health care, promote self-help groups and village administration.

1.4 Statistical Data on Tombo:

- | | | | |
|-------|---|---|--|
| 1.4.1 | Population | : | 10,315 |
| 1.4.2 | Population of Permanent fishermen | : | 1,200 |
| 1.4.3 | Number of Boats and types | : | |
| | - Ghana Boats with active Ring Nets | : | 56 Petrol boats
10 Diesel Inboard
boats |
| | - Standard 3-5 with Drift Nets | : | 13 |
| | - Standard 1-3, Drift Nets, Long
Line and Set Nets | : | 48 |
| | - Kru Canoes, Hook and Line | : | 3 |
| 1.4.4 | Average Annual Production | : | 8000 MT |
| 1.4.5 | Species Catch Composition | : | Bonga, 48.5%
Herring, 46.8%
By-catches, 4.7% |

2. Phase IV 1987 - 1989

The activities of the fourth phase of the project were based on the results and recommendations of the ZOPP or Goal Oriented Project Planning Workshop of 12th - 14th March 1987.

The goal at this planning workshop to which the project contributed was formulated as "Model for fishing community development in Sierra Leone established".

The project's purpose for this phase for which the project is responsible, was formulated as "Fishing community development successfully realised and consolidated".

The priority of the project activities was shifted from production to community development, self-help organisations and creation of communal infrastructure, financed directly from the commercial activities of the project and village based organisations.

3. Results of Activities - Phase IV:

3.1 Reorganisation of Freetown Office and Tombo:

The Head Office in Freetown was reduced to a liaison office with the minimum of staff.

A new accounting system was introduced and a qualified Accountant employed and based in Tombo.

The number of sub-sections in Tombo was reduced in order to shorten the management chain and improve efficiency.

PEMU (Planning, Evaluation and Monitoring Unit) was reorganised and put in a position to evaluate all project activities, instead of focussing on collection of statistical data only.

3.2 Role of MANR & F

Supportive role of project activities by MANR & F through Fisheries Department to be improved.

The 1987 ZOPP Workshop discussed the strengthening of the Fisheries Department of MANR & F, to carry out its duties more effectively.

A ZOPP Workshop for the restructuring and reorganisation of the Department was duly conducted from 17th - 21st April 1989 financed by GTZ.

With the passing of the New Fisheries Act of 23rd June 1988, it is expected that the Yawri Bay will be protected from intrusion of trawlers, which in the past, resulted in the Fishermen (Artisanal) suffering damages or loss of fishing gear without compensation and also causing immense damage to young fish stock.

3.3 Foreign Exchange

It is of great importance that Leones acquired through the commercial activities of the Retail Store be converted into hard currency for the reimportation of fishing equipment.

The Project Management is in contact with Ministry of Finance through the Fisheries Division, Bank of Sierra Leone and Commercial Banks for access to foreign exchange.

3.4 Fishing and Fish Processing

Experiments are being continued in the fields of gear construction, fishing technique, propulsion technique, fish

handling and processing, in order to increase fish production and save fuel, lubricants and fuelwood.

Increased attention is given to fish processing, mainly in the construction of fuelwood saving smoking/drying devices. Improved type Banda and chorkor ovens have been constructed by the project and are being tested by fish processing women.

3.5 Fuel Wood and Deforestation

It is expected that approximately 20% of firewood consumed in Tombo could be supplied from controlled forest reserves by the FAO - Fuelwood Project - Western Area, with whom the project is in close contact.

This is aimed at minimizing the negative results of deforestation around Tombo by a fast growing population (10,315), with high firewood consumption for fish processing (approximately 8000 tons/year) and also for household use.

3.6 Loan Schemes

New guidelines for existing Loan Schemes (i.e. Diesel Propulsion and Netting) were prepared and introduced.

This was necessary as the previous precondition for a diesel engine loan (the necessary funds for the construction of the improved boat including a complete fishing gear), were not always met, which left the applicant confused and misunderstanding the terms and rate of repayment.

Extensive discussions were held with debtors and the rest of the target group through the Yawri Bay Multi-Purpose Cooperative and the Village Development Board to improve repayments.

There was very little response by the debtors to improve repayment despite all possible moves by Management. This resulted in the discontinuation of the loan schemes. See Table I.

Introduction of a new loan scheme was considered for fish processing women members of the Women's Cooperative Society. The loans would have gone towards construction of improved drying/smoking devices, introduced by the project.

The scheme did not materialise due to the failure of the diesel propulsion and netting loans schemes.

3.7 Fishermen's Guarantee Scheme

The cost of the improved Ghana planked inboard diesel boat with complete gear increased considerably its value to over one

million leones. See Table II.

To protect the fishermen's investment from any high risk loss, the project proposed the introduction of a guarantee scheme. Because of the complexity of running such a scheme an Insurance Company dealing in Marine Insurance was invited to introduce an Insurance Scheme for the fishermen. To date the fishermen have not shown interest in insuring their investments.

3.8 New Cooperative Society

The establishment of a new cooperative society comprising of Canoe owners (Std. 3-5) within the Yawri Bay Multipurpose Cooperative is under consideration.

Although membership the more affluent Boatowners' Cooperative was open to them, the majority refused to join.

The project would have taken the responsibility to strengthen such a Co-op by training leaders and/or employing qualified managers and staff in close cooperation with the Co-op. Department.

Plans for the setting up of such a co-op society are still being worked out.

3.9 Village Development Board

- 3.9.1 A Village Development Board - Tombo was established to run the administrative and development programmes of the village.

A short-term German expert as well as local expert lawyers were consulted to advise on the legality of such a Board outside the existing area committee, administering twelve villages under the Rural District Council.

Legal proposals are yet to be submitted by these experts. Despite this bottleneck, the Board has succeeded in collecting funds, kept by the project and successfully administered jointly.

- 3.9.2 The community Development Section of the project and the VDB are examining additional possible financial sources to manage the village administration and maintenance of village infrastructures. Two additional sources of revenue are Market and Wharf Dues.

3.10 Innovation Centre

The possibility of developing the present project site into

an Innovation Centre is being considered as it is foreseen that it will not be possible to accommodate different enterprises within the confines of the present project area and on the other hand it will be difficult to hand over to a single organisation because of the diversity of the establishment.

It is intended that the Innovation Centre should serve the fishing community of Tombo as well as other fishing villages.

3.11 The Retail Store

The Retail Store is presently being organised to run on a commercial basis, similar to a private trading company.

4. Additional Activities

Other activities successfully completed during this phase were:-

4.1 The construction of:

- (a) Two Health Staff Living Quarters, comprising two flats each.
- (b) Office block comprising six offices housing the Village Development Board and the Project's Village Development Section.
- (c) Village Community Hall.

4.2 ZOPP Workshop for Phase V of the project was conducted from 3rd - 21st April 1989 in three stages:

- (a) Fisheries Development (Technical and Commercial Aspects) of the project 3rd - 7th April 1989.
- (b) Community Development (Village Development Cooperative Societal and Village Organisational Structure) 10th - 14th April 1989.
- (c) Restructuring of Fisheries Department - MANR & F - 17th-21st April 1989

4.3 First Sierra Leonean Head of Section, Mr. S.E. During, took over the responsibility of the Fishing/Fish Processing Section at the end of the contract of the German Master Fisherman - Mr. Jarchau.

4.4 The project continues to support the Fisheries Department's outstation in Bonthe, with supply of fishing equipment for sale to fishermen in the Bonthe District.

4.5 Training courses conducted for Village Development Board members and youths of the village.

5. Conclusion

The project is now in its fifth phase - September 1989-August 1993.

The target group participation is being encouraged by the project in infrastructural, social and community development administration.

Members of the Village Development Board are being trained in administrative procedures and management of village-based infrastructures and utilities.

The plan of operation for the fifth phase is under preparation.

Table 1.

LOANS

	Balance brought f/w from 1988	Additional 1989	Payments to 31.10.89	Balance 31.10.89
1 <u>DMP 1984-89</u>	1,230,394.16	-----	78,940.00	1,151,454.16
a. Nine Debtors				
b. One Debtors		91,360.00	-----	91,360.59
Total (Ten Debtors)	1,230,394.16	91,360.59	78,940.00	1,242,814.75
2 <u>Netting Prog.</u> <u>1984-89</u>				
57 Debtors	2,205,458.29	-----	374,948.00	1,830,510.29
Grand Total	3,527,213.04	91,360.59	453,888.00	3,073,325.04

t DMP = Diesel Motorisation Programme

Note: a) The above accounts do not include interest rate of:

- DMP = 50%
- Netting = 30%

b) The Loans were repayable over a two year period.

Table 2.

Cost of Diesel Boat Construction and Complete Net
(700 yards x 35 yards)

1 End of 1988

- Cost of Diesel Inboard Engine	1e 250,000.00
- Wooden Hull	200,000.00
- Cost for Engine Installation, Engine Bed, Bolts, Nuts, Metal Works and other strengthening materials	30,000.00
- Fishing net (complete)	<u>307,902.00</u> 787,902.00

2 October 1989

- Cost for Engine Installation, Engine Bed, Bolts, Nuts, Metal works and other strengthening materials	45,000.00
- Fishing net (complete)	<u>600,000.00</u> <u>1,401,000.00</u>



Sierra Leone, Tombo Project, and Shenge Project

Appendix 1.2.THE SHENGE PROJECT1. General Information1.1 Project Title

Integrated Fisheries Development in Rural Villages, Shenge Region.

1.2 Project Number

SIL/82/015.

1.3 Location

The project is based in Shenge town and works in 13 fishing villages in the Shenges Peninsula, namely Boama, Bompetoque, Mano, Bendu, Tissana, Tissana Wharf, Tissana Point, Patti, Katta, Plaintain Island, Shengebole, Shenge and Dibia.

1.4 Funding

UNDP Contribution: (IPF) US\$ 1,675,358
 Government Contribution (in kind): Le 1,479,755
 DANIDA Contribution (GCP/SIL/018/DEN): US\$ 311,937
 UNCDF Contribution (UND/SIL/004/CDF): US\$ 516,700

1.5 Duration

Implementation began in February 1985, and activities in the current phase are scheduled through the end of 1989.

1.6 Executing Agencies

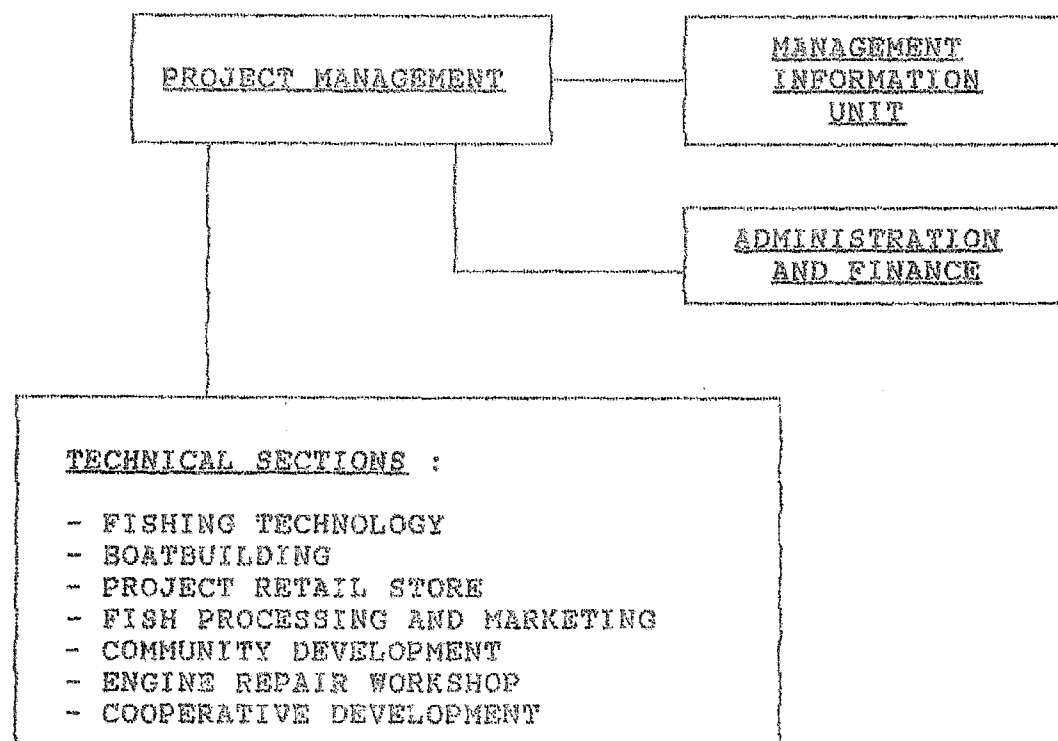
- Fisheries Department, Ministry of Agriculture, Natural Resources and Forestry of the Republic of Sierra Leone.
- Food and Agriculture Organisation of the UN.

1.7 Current Staffing

Three FAO experts; a Chief Technical Advisor/Masterfisherman and a Shoreside Adviser/Fisheries Development Officer funded by SIL/82/015 and a Community Development Officer paid by GCP/SIL/018/DEN. One UNV Cooperative Development Officer. Five FAO General Service staff. Government staff include a Co-Manager, a Masterboatbuilder, a Community Development Officer, a Cooperative Officer, a Masterfisherman, an Agricultural Instructor, one PCV for Agriculture Development

and enumerators of the Fisheries Division. Nationally recruited professional assistants include a sociologist who heads the Management Information Unit and a Cooperative Manager. Additional General Service staff are recruited locally.

1.8 Organisational Structure



2. Project Objectives

2.1 Development Objectives

To improve the income, welfare and prospects of the coastal and artisanal fishing communities in the Shenge Region, with the dual objectives of improving their fish production capacity and their socio-economic well-being.

2.2 Immediate Objectives

The immediate objectives are as follows :

- 1) Identify and promote with the fisherfolk of the Shenge region opportunities for improvements in the economic productivity of their fisheries, alternative sources of

income, and locally sustainable community infrastructures and services, focussing on problems which the local people have themselves identified using solutions which they have approved and will themselves implement.

- 2) Improve the local availability of the supplies, materials and services essential for the economically profitable continuation of the existing fish capture, processing and marketing activities in the region. This involves principally fishing gear materials, engines and spare parts, motor repairs, metal grills for fish smoking, fuel, as well as both land and sea transport for fish products.
- 3) Test, and where locally proven, demonstrate and introduce profitable and technologically sustainable modifications to the established techniques and patterns of fish capture, processing and marketing.
- 4) Encourage and coordinate the activities of local groups and other agencies working towards improvements in the physical, economic and social well-being of the fishing communities in the project area.
- 5) Establish a high-quality Central Fisheries Development Unit team capable of adequately supporting fisheries in the Shenge project region in the foreseeable future, given appropriate supplemental technical assistance and financing.
- 6) Establish a programme for recruiting and training village-based Fisheries Development Units (in fishing, engine operation, processing and marketing activities) which will be responsible, under the Central FDU in Shenge, for looking after implementation of development micro-projects in outlying clusters of villages. This will provide the technical and administrative structure necessary for later expansion to new areas, should this eventually be desired.

3. Project Development Strategy

Project SIL/82/015 is a multisectoral integrated fisheries development project designed to address both the fishery related and non-fishery-related obstacles to the development of the region. The development strategy pursued by the project builds on the integrated approach to the development of artisanal fishing communities endorsed by the FAO-sponsored World Conference on Fisheries in 1984. It is based on the following seven essential elements:

- A coordinated rather than a piecemeal approach to the problems of the fish production chain and of the fishing villages.

- Full village-level participation in the identification, planning, implementation and evaluation of the project activities.
- Mobilization of local resources, human, physical and financial, so that the achievements of the project are locally sustainable.
- Long-term technical and managerial support.
- Explicit attention to the particular needs of women and youths.
- protected access to, and local participation by the local fisherfolk in the ecologically sound management of the fisheries resources.
- An integrated locally-based information system for planning, monitoring, evaluating and revising all project components.

The strategy is designed to be implemented by national Fisheries Development Units (FDUs), extension teams whose members are individually competent in the technical specializations required for the development of the fishing communities (motor repair, fishing, fish processing and marketing, boat building, business management, socioeconomics, project planning and coordination, etc.)

Crucially important to this strategy is the on-the-job training of national project personnel in methods of participatory planning, implementation and evaluation, and in effective methods of team management. In project SIL/82/015 national staff are trained both by FAO experts on the spot and by visiting consultants, many of whom come from FAO's IDAF Programme for the Integrated Development of Artisanal Fisheries in West Africa (GCP/RAF/192/DEN) with which this project is closely associated.

Equally important is the need to support existing and locally patronised organisations and to encourage the development of further groups and/or associations through which the local population can address some of their most pressing problems. Accordingly the project has provided the managerial assistance to establish the Shenge Central Cooperative Society, village health committees, women's enterprise groups and farmer's associations, and technical assistance to realise the potential of existing workshops at the secondary school.

Project staff work closely as a team and coordinate their individual technical interventions to ensure that the different project activities do not conflict with one another.

These different activities, which for management purposes are thought of as micro-projects, can be divided into four main categories:

- 1) Micro-projects dealing with priority problems identified by the fisherfolk themselves and which use techniques and methods which are familiar to them (eg. supply of fishing gear and fuel).
- 2) Micro-projects dealing with problems identified by the fisherfolk, but using techniques and methods which may be new to them (eg. diesel-powered boats).
- 3) Micro-projects dealing with problems identified by the FDU using solutions acceptable to and desired by the community (eg. fuel-efficient ovens to address high fuelwood consumption).
- 4) Micro-projects dealing with management and organisation of the Shenge Project itself, and its role in the development process. (eg. monitoring and evaluation procedures, staff training).

Through these micro-projects the Fisheries Development Unit works to address those problems identified above as obstacles to the development of the Shenge region.

4. Institutional Framework

The Fisheries Division of the Ministry of Agriculture, Natural Resources and Forestry and the Food and Agriculture Organisation are the implementing agencies of project SIL/82/015. The project was originally designed as a UNDP funded project and until recently the UNDP and the Government of Sierra Leone were the only donors providing monies for the project.

More recently additional funds have been secured. DANIDA has provided US\$ 311.937 to fund the activities of the Community Development and Fish Processing Sections of the project under a project for "Support to Women's Fish Processing Activities and Community Development" (GCP/SIL/018/DEN). The staff of this project, including the Community Development Officer who is directly responsible for these technical sections, work under the umbrella of project SIL/82/015 using infrastructures and other facilities developed and/or acquired by this project.

A UNCDF funded project, "Integrated Development in Rural Fishing Villages of Shenge" (SIL/85/003) has recently been signed. This is a large project (>US\$4,000,000) involving several institutions including the Ministries of Finance, Works, Health, Education, Social Welfare and Agriculture, Natural Resources and Forestry.

Project SIL/82/015 will be responsible for the UNCDF funds allocated for the fish production and processing components of the project in the FAO Trust Fund project UNO/SIL/004/CDP. Of the US\$ 516,700 included in this project, US\$ 379,900 are to be used in a Working Capital Fund for the purchase of engines, spare parts and fishing gear for retail to area fishermen, US\$ 67,600 are to be used in a revolving Loan Fund providing credit to fisherfolk, US\$ 26,000 are to be used for the construction of fish smoking ovens and US\$ 20,000 to assist transport boat operators improve the safety of their vessels.

The construction of the Shenge-Moyamba road, a clinic, a school and other infrastructures foreseen in UNCDF project SIL/85/003 will be undertaken by the ongoing ILO project SIL/88/009. Water well and latrine construction will be carried out under the aegis of UNDP/UNDTCD project SIL/85/002, "Strengthening of Rural Water Supply".

Additional financial assistance for project SIL/82/015 has been provided by the U.S. Ambassador's Self Help Fund which has provided US\$ 5,100 to the Shenge Women's Group for a "Sewing and Gara Production Self Help Project" which is supervised by Project SIL/82/015.

Additional technical assistance is provided by Voluntary Service Overseas volunteers, Peace Corps volunteers and United Nations volunteers.

Food for Work is provided by the World Food Programme.

5. Problems Identified in the Region

- A chronic scarcity of materials for the fabrication of fishing gear, of spare parts and trained mechanics for the repair of outboard engines, and of materials needed for fish processing.
- An erratic and unreliable supply of kerosene, engine lubricants and petrol.
- Important post-harvest losses during transport and storage of fish.
- Many potential fishing days lost due to the unseaworthiness of smaller Yelefufu and Kru canoes.
- Poor reliability and short lifespan of outboard engines due to improper use, and inadequate maintenance and repair.
- High cost of operating the petrol outboard engines which are the main form of propulsion for the large Ghana canoes and "Pampa" transport boats.

- Persistent exclusion of artisanal fixed gear and handline fishermen from Yavri Bay and the Sherbro Banks by industrial trawlers.
- Occasionally serious conflicts between industrial trawlers and artisanal drift net fishing vessels working in-shore in Yavri Bay.
- Difficulty of cleaning bottom drift and set nets of spiny sea urchins.
- Shortage of tools and materials needed by artisans providing vital equipment and services in the region (e.g. Blacksmiths, Carpenters and Masons).
- Underdeveloped community infrastructures, with particularly serious deficiencies in water supply.
- Underutilisation and deterioration of existing community infrastructures including technical facilities at the secondary school, the local clinic and the covered market in Shenge Town.
- Extreme isolation resulting from the severe deterioration of the one road linking the Shenge peninsula with the rest of the country and seasonal damage to local feeder roads.
- A chronic scarcity of rice, the basic foodstuff in Sierra Leone, and other commodities such as flour and sugar.
- Poor yields from the main cash crop (groundnuts)
- Underutilisation of potential farming areas including surrounding swamps.
- High post-harvest losses of crops to pests, particularly rodents.
- Severe un-employment and under-employment among youth.
- Extreme dependence on fishing for income generation and consequently a strong seasonality to income.
- High fuelwood consumption levels with consequent pressures on, and increasing costs of, bush and mangrove wood resources.
- High infant mortality due to under-nutrition and malnutrition, infective and diarrhoeal diseases.
- No emergency medical facilities within one days' travel by road or by sea (due to the recent closure of the Chinese-run Field Surgery at Rotifunk).

- Overloaded and consequently unsafe public transport by road and by sea.
- Smoke-induced health problems among fish processors.

6. Project Achievements

In its implementation project SIL/82/015 has made measureable progress toward the realisation of its objectives and the alleviation and/or resolution of problems identified in the region. Specifically the project has achieved the following:

- Established the Community Fishery Centre needed to support the development of the fisheries sector in the project area (Project Offices, Cooperative Office, Fishing Gear Retail Store, Engine Repair Workshop, Staff Housing, etc.).
- Delivery and sale of inputs necessary to stem the decline and revitalise the Shenge Fishery, including US\$ 200,000 worth of fishing gear materials, outboard engines, spare parts, materials needed for constructing fish smoking ovens, fertilizers and seeds for small-scale farmers/part-time fishermen.
- Increased recorded fish landings in the region from approximately 9,500 tonnes/annum (GOSL records for 1982) to over 14,500 tonnes/annum (project records 1987/1988).
- Mobilised DANIDA funds to establish project GCP/SIL/018/DEN which will fund the technical assistance provided by the Community Development and Fish Processing sections of the UNDP umbrella project.
- Secured UNCDF funding to address fishery and non-fishery related needs of the thirteen communities targetted by project SIL/82/015 and to recondition the Moyamba-Shenge road.
- Introduced Government personnel and other nationals to a participatory approach to development through the establishment of an FDU.
- Established a Central Supply Cooperative which regularly supplies fuel, rice and other commodities to the fishing villages.
- Improved seaworthiness and safety of the Yelefufu and Kru canoes, and reduced fishing days lost due to weather conditions, by an outrigger installation programme.

- The demonstration of a diesel outboard engine in fishing and transport canoes to emphasize potential gains in fuel economy.
- Demonstrated the superior catching and easier cleaning qualities of monofilament gill netting.
- Construction of outboard engine repair workshops in Shenge, Plaintrain Island and Katta where fishermen can obtain spare parts, and where project-trained mechanics provide proper maintenance and on the spot training in improved operating practices.
- Introduced and extended the fuel efficient Chorkor and modified "Pante" fish smoking ovens to local fish processors.
- Introduced and extended modifications to traditional "Banda" fish smoking houses to improve ventilation and hygiene.
- A Resource Assessment of local Mangrove Forests to determine sustainability of fuelwood reserves.
- Lobbied the Government and FAO Project TCP/SIL/6654 "Support to the Fisheries Division" to give improved protection to the artisanal fishermen from the illegal incursions of the industrial fleet.
- Identified the most cost-effective combination of vessel, sail and power currently in operation in the project area and determined the most appropriate course for future investment and credit programmes for boats, engines and nets.
- Provision of scrap metal and training to local blacksmiths to upgrade the quality of and variety of locally made fishing and farming tools and equipment.
- Repair of Secondary School technical training facilities for an ongoing training programme teaching income-generating skills to schoolchildren, school leavers and unemployed youth.
- A seed multiplication micro-project which has increased the area of cultivation of groundnuts in specific project villages and increased the yields from 4 bushels/acre to 8 bushels/acre.
- Improvement of soil fertility through provision of fertilizer and instruction in composting techniques.

- Construction of Drying Floors and storage facilities for harvested crops.
- Trained women in new income-generating activities (eg. soap making, "gara" production).
- Establishment of a UNICEF-sponsored Environmental Sanitation Unit to construct improved wells and latrines and train villagers in improved hygiene practices.

FOR DETAILS OF ACHIEVEMENTS BY EACH TECHNICAL
SECTION SEE FOLLOWING PAGES.

FISH PROCESSING AND MARKETING SECTION

OBJECTIVE : To develop, test and encourage adoption of improved processing techniques in order to upgrade product quality, increase fuel efficiency and improve working conditions.

PERSONNEL : One locally recruited Fish Processing Officer, thirteen village-based extension workers.

ACTIVITIES : Identify trends and constraints within the Fish Processing Sector.

- Development, testing and introduction of improved fish processing methods: i.e. Chorkor Ovens and modified 'Fante' Banda ovens.
- Training of area Fish Processors in the use of the Chorkor Oven.
- Supply of processing inputs: Chicken wire, head pans, iron rod and cement.
- Assist the FAO Fuelwood Project to do a Resource Assessment of the Mangrove Forest along the Kargboro river upon which Katta and Plaintain Island are dependent for fuelwood.
- Monitoring of fuelwood consumption, and fresh and smoked fish prices.
- Development of improvements to Banda Smoking Houses to increase ventilation and reduce health hazards.

OUTPUTS : Construction of a Community Chorkor Oven smoking centre for demonstration and training.

- Construction of over 25 Chorkor ovens by area fish processors for individual use.
- Construction of over 50 modified 'Fante' ovens by area fish processors for individual use.
- Construction of over 20 improved Banda House and modification of over 55 existing houses to improve ventilation.
- Over 80 women trained in the construction and use of improved fuel-efficient fish smoking ovens.

- Thirteen trained field extension workers.
- A National Workshop on artisanal Fish Marketing sponsored and coordinated by SIL/62/015.
- Detailed report of six-month study into "Marketing Catches of Artisanal Fisheries in Sierra Leone".
- In depth study into the sociology and socioeconomics of Fish Processing in the region.
- Detailed survey of Banda Houses and ovens in the region.

PROBLEMS: High fuelwood consumption levels by processors in other areas in Yawri Bay is increasing the pressure on the fuelwood resources of the Kargboro river. The section is helping the FAO Fuelwood project to develop a Management Plan for the Kargboro Mangrove Forest which will help to ensure a regular supply of wood for the processors of the Shenge Peninsula.

PROJECT RETAIL STORE

OBJECTIVE : The regular provision of fishing gears, outboard engines, spare parts, chicken-wire and other inputs needed for fishing and fishing-related economic activities to the Shenge community at competitive prices.

PERSONNEL : One storekeeper, two assistants, one accountant (part-time).

ACTIVITIES : Importation of fishing gears and chickenwire for retail at commercial prices.

- Purchase of outboard engine spare parts locally (Freetown) for resale in Shenge.
- Organisation of the store and consolidation of inventory and accounting practices.
- Monitoring of consumer preferences for gears to ensure that fast moving items are regularly restocked.

OUTPUTS : Retail Store room constructed and organised.

- A computerised stock inventory and control system.
- Storekeeper trained in stock inventory and control.
- Outboard engines, spare parts and materials for fish

processing purchased in Freetown and supplied to local fishermen and fish processors.

- Wholesale supply of fishing gear from international suppliers.
- Retail of over US\$ 130,000 (>Le 3,330,000) of fishing gear, spare parts, chickenwire and other essential inputs to local fisherfolk.
- Revolving fund of Leones for the purchase of outboard engine spare parts in Freetown.
- Retail store returns used to finance other project activities e.g. Purchase and retail of fertilizers to local farmers, establishment of Community Gardens for the demonstration of improved farming practices, purchase of cement for the construction of fish smoking ovens.

PROBLEMS: Leones generated from the sale of imported fishing materials cannot yet be reconverted into US\$ to purchase new stocks overseas. This has severe implications for the sustainability of the operation after cessation of donor funding.

- Under capitalisation of the section limits the impact it can have on the fishery. Insufficient gear is provided for retail to the fishermen and no outboard engines have been supplied for over two years.

FISHING TECHNOLOGY SECTION

OBJECTIVES : Explore, assess and commercially exploit existing and new fish resources.

- Improve and upgrade the commercial viability and safety of the Ghana, Yekefufu and Kru fishing canoes.
- The adoption of more fuel efficient, cost effective methods of fishing by the local fishermen.

PERSONNEL : One Masterfisherman, seven project fishermen.

ACTIVITIES : Testing of locally built Yekefufu canoes modified by the addition of planked and solid wood outriggers and different sail types to improve sailing performance, stability and economic performance.

- Testing the relative performance of various monofilament and polyamide trammel and gill net for demersal and pelagic fish.
- Experimental testing of monofilament as a replacement for polyamide for demersal hook and line fishing.
- Assessment of the commercial viability of fishing the underexploited stock of commercially attractive Red and Black Snapper.
- Demonstration of modified Yekefufu and Kru canoes in six project villages.
- Performance appraisal of 27 HP Diesel outboard engine on fishing and transport boats.

OUTPUTS : The identification of a potentially commercially viable fishery exploiting Red and Black Snapper by means of Handlines.

- Established superior catch rate and easier cleaning of monofilament gill nets.
- Safer and more stable modified Yekefufu and Kru canoes which outperform traditional local craft.
- Adoption of "Balsa"-type wood pontoons by Kru canoe fishermen.
- Adoption of monofilament for handlining.

PROBLEMS: The Delta/Crab claw sail initially adopted for fishing trials proved unacceptable to local fishermen because it was not suited to the prevailing light winds of the region. However, a solution has been found by the adoption of an improved reefable version of the locally used Square sail.

- The high initial and maintenance costs of the planked pontoon originally tested as an outrigger made it unacceptable to local fishermen.
- Access to Snapper and Shark fishing grounds is restricted by the activities of the industrial fleet.

BOATBUILDING SECTION

OBJECTIVE : Develop, and initiate the adoption of, improved boat designs and construction practices.

PERSONNEL : One Government Masterboatbuilder, two assistant boatbuilders.

ACTIVITIES : The construction of three Yelefufu canoes for experimental modification and improvement as well as commercial fishing trials.

- The design and construction of various outriggers to improve the sailing performance and safety of the Yelefufu and Kru canoes.
- The testing of various outrigger designs and materials.

OUTPUTS : A modified Yelefufu sailing craft with a solid "balsa"-type wood outrigger which performs better than traditional craft particularly in rough weather.

- Adoption by local boatbuilders of galvanised nails for the construction of local craft. This increases the strength and potential life of these boats.
- Adoption of outriggers by local Kru canoe fishermen.

PROBLEMS: It took longer than anticipated to develop a suitable outrigger which was light, sufficiently watertight and durable. However, a solution to this problem has now been found and in combination with an improved version of the locally used square sail a viable combination appears to have been found.

COMMUNITY DEVELOPMENT SECTION

OBJECTIVE : Establish a village-level capacity for community development self-help actions in environmental health, income-generating activities, farming and other needs not directly related to fishing or fish processing.

PERSONNEL : One Government Community Development Officer, one assistant, one Government Agricultural Instructor, two Government Public Health officers, one Peace Corps Agriculture volunteer, one sewing instructor.

ACTIVITIES : Mobilization of community leaders to set up Health Committees and Women's Enterprises Groups.

- Construction of wells and ventilated pit latrines.
- Group and individual instruction on hygiene and sanitation.
- Demonstration and dissemination of methods for improving hygiene and sanitation, e.g. use of plate racks, clothes lines, compost fences, etc.
- Training of community members on problem identification and the development of solutions to these problems through self-help organisations and collective decision making.
- Improvement of soil fertility (through the provision of fertiliser and instruction in composting techniques).
- Provision of improved seeds and seedlings to increase yields and diversify local backyard garden production.
- Increase area of cultivation of, and the yields from, the major cash crop, groundnuts.
- Construction of Drying floors and Storage facilities to reduce post harvest losses.
- Training of women in clothing and Handicraft manufacture.

OUTPUTS : Regular meetings of Health Committees and Women's groups in the thirteen villages in which the project is active.

- Improved village-level understanding and implementation of community health and sanitation practices, particularly for the prevention and treatment of Cholera and other waterborne diseases.

- A number of improved wells and pit latrines in project villages.
- Workshops on environmental health and nutrition.
- Area of cultivation for groundnuts at Mano Village increased and yields increased from 4 bushels/acre to 8 bushels/acre.
- Community vegetable gardens being farmed with improved seeds, fertilizers and techniques.
- Shenge Women's Group "Sewing and Garment Production" microproject funded with monies from the U.S. Ambassador's Self Help Fund.
- Reports on the incidence of Infective and Diarrhoeal diseases in children and the impact of environmental sanitation extension work.

PROBLEMS : The time horizon of most villagers is very short, and as a result villagers are reluctant to undertake activities which will yield benefits in the medium to long-term.

ENGINE REPAIR WORKSHOP

OBJECTIVES : Train and upgrade local mechanics in the operation, repair and maintenance of petrol and diesel outboard engines, and other vehicles and machines needed to maintain and improve levels of trade and communications in the fishing villages.

- To provide a consistent, reliable and competent outboard engine repair service to the fishermen of the project villages.
- Improve and upgrade existing facilities for training in carpentry, blacksmithing, and general mechanical and electrical skills.

PERSONNEL : Chief mechanic, one assistant (a local mechanic on a six month apprenticeship from Katta village). Two local trainee outboard engine mechanics. One VSO Appropriate Technology instructor.

ACTIVITIES : Maintenance of project vehicles, equipment and engines.

- On-the spot training of fishermen in the servicing and maintenance of their own engines when they bring them to the workshop for repairs.
- Upgrading of mechanical repair skills of village-based mechanics through six-month apprenticeships in the project workshop.
- Construction of improved village repair and maintenance facilities.
- Identification of appropriate technologies for income generation.
- Training schoolchildren, school leavers and unemployed youth in income generating skills.
- Provision of scrap and training to local blacksmiths to upgrade the quality of their products.

OUTPUTS : Project workshop built and equipped for the repair of petrol and diesel outboard engines, inboard diesel engines, vehicles, motorcycles and generators.

- Village workshop established with project-trained local mechanic on Plantain Island.
- Fishermens' outboard and inboard engines serviced and

repaired on request.

- Improved anchors, tools and farming implements made locally by blacksmiths
- 50 KVA, two 25 KVA generators and the mechanical and technical workshop at Howard Memorial Secondary School, Shenge reconditioned and repaired for use in the ongoing technology training programme.
- Programme for the formal and informal training in appropriate village-level technology.

PROBLEMS : Fuel mixing practices lead to excessive carbonization, poor performance and reduced operating life for outboard engines.

- Absence of suitable locally available tools lead to poor engine maintenance practices.

MANAGEMENT INFORMATION UNIT

OBJECTIVES : Provide socio-economic information required by management to develop and refine development policies and extension practices and to assist in decision making.

- Monitor and evaluate the project's effects and impact in the targetted fishing communities in socio-economic terms.

PERSONNEL : One professional assistant, one survey assistant, and twelve Government field enumerators.

ACTIVITIES : Conduct various socio-economic base-line surveys relevant to project objectives (including an annual framework survey).

- Write and submit reports on various social aspects of the target group: social structure, health, organisation of fishing operations, etc.
- Monitor the numerical changes and trends of such parameters as population, literacy, housing, fishing boats, nets, engines, bandas, etc.
- Assist other sections of the project to identify the most socio-culturally effective way of conducting their activities.
- Monitor the economic performance and social acceptability of introduced technological innovations.
- Conduct cost and earnings studies of local fishing boats, fish processing units, small-scale businesses, etc.

OUTPUTS : Four Framework surveys and a number of special studies which have been consolidated into a report on the socio-economic environment in Shenge.

- Case studies on local savings and credit clubs (Ossusus and Compins).
- A monitoring system which is systematically reporting weekly movements of fish into and out of the region.
- An internal reporting system which allows management to closely monitor the activities of all technical sections.
- A cost-benefit study which examines the economic performance of different vessel/net/engine combinations operating in the region.

PROBLEMS : There is sometimes the problem of extreme suspicion on the part of the fisherfolk who are reluctant to divulge information about themselves. This problem will require long term education of the target group who are largely illiterate (80%).

COOPERATIVE DEVELOPMENT

OBJECTIVES : Unite the target group into Village Service Cooperatives to work together to realize shared goals which will benefit both the individual villages and the area as a whole.

- Establish a reliable share contribution scheme capable of mobilising Le 300,000 of capital per annum.
- Extend low-cost credit to members through a revolving fund.
- Purchase and import into Shenge primary commodities at wholesale prices.

PERSONNEL : One UNV Cooperative Officer, one Cooperative Manager, one Senior Government Cooperative Officer, one Assistant Manager-in-training.

ACTIVITIES : Intensive Cooperative education campaign in thirteen villages.

- Organisation and registration of a federation of 11 Village Cooperative Organisations governed by a Board of the Presidents of the Member Cooperatives.
- Recruitment and training of staff for the Shenge Central Cooperative Society.
- Regular ongoing meetings/training of the Board of the Central Cooperative Society and the Management Committees of the 11 village cooperatives.
- Establishment of a commodity supply system to deliver petrol, kerosene, rice and sugar purchased in Freetown at wholesale prices to the member villages.
- Management of the Central Cooperative Fund (>Le 500,000) to permit the Cooperative to expand and diversify its income-generating activities.
- Development of a credit package using a Le 100,000 revolving fund, and education of Cooperative members in the use of this facility.
- Disbursement and management of loan fund by a Credit Committee.
- Acquisition of a safe and three fuel tanks (fixed assets).

OUTPUTS : Shenge Central Cooperative Society with a membership of over 680 fishermen, fish processors and traders.

- A board of presidents which meets every month to develop cooperative policy, set the prices of imported commodities and direct the Cooperative Manager in his work.
- A locally recruited and trained Cooperative Manager who is running the day-to-day operations of the cooperative.
- A commodity supply system delivering fuel and other much needed commodities to cooperative members.
- A credit facility which disburses money to members whose loan applications have been approved by village and central cooperative loan committees.

PROBLEMS : The loan fund of Le 100,000 is too small to meet the credit needs of members most of whom apply to purchase fishing gear and fish processing materials. Currently only 2 1/2% of the membership benefits from this scheme.

- Inadequacy of working capital coupled with transport and storage problems inhibits the Shenge Central Society from importing large quantities of essential consumer goods like rice, flour and sugar into the region.
- Most village cooperative officials are prominent villagers who are active in many other political, social, cultural and economic organisations in their respective villages. This has resulted in some identity problems for the cooperative.
- Friction among the three different interest groups in the Cooperative, namely fishermen, fish processors and traders. This has caused some problems with the distribution of fuel.
- The ethnic diversity of the Cooperative's membership means that all discussions at meetings have to be interpreted into three languages.
- Some cooperative leaders are so involved in other village matters that they have little time to carry out their duties as cooperative officers. This results in work being considerably slowed down.

Retail Store Sales Jan. 1987-June 1989

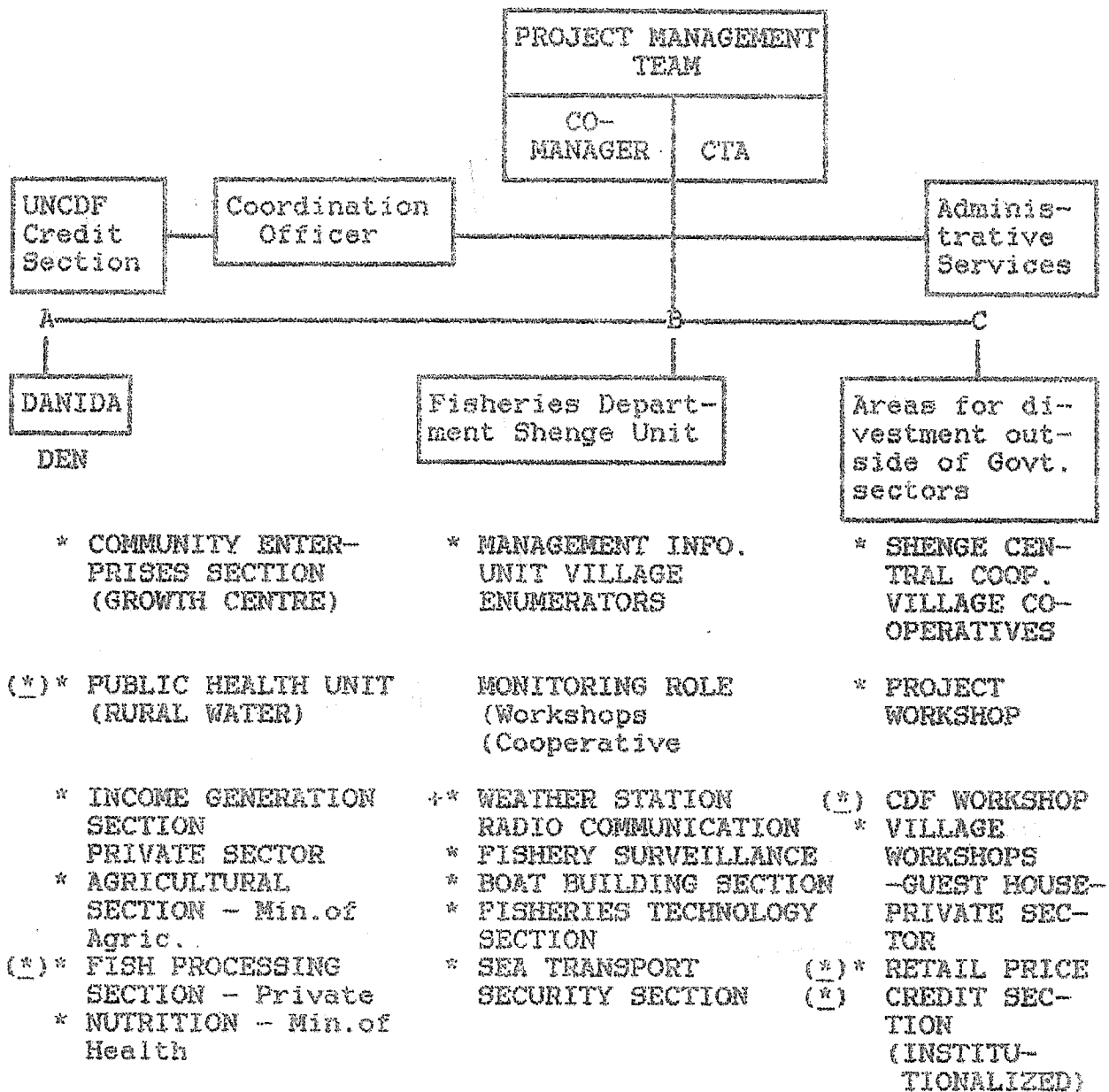
Month	Sales (Le)	Exchange Rate (Le:US\$)	Sales US\$
<u>1987</u>			
Jan.	48659.52	38	1280.51
Feb.	19865.38	38	522.77
Mar.	39655.76	43	922.23
Apr.	49654.00	50	993.08
May	567349.00	53	10704.70
Jun.	68512.00	44	1557.09
Jul.	62744.00	36	1742.89
Aug.	61732.00	25	2469.28
Sept.	57752.00	23	2510.96
Oct.	255255.00	23	11098.04
Nov.	207429.00	23	9018.65
Dec.	71679.50	23	3116.50
<u>1988</u>			
Jan.	512227.80	23	22270.71
Feb.	220377.00	23	9581.61
Mar.	120936.00	23	5258.09
Apr.	75276.00	29	2595.72
May	94602.00	29	3262.14
Jun.	125113.00	30	4170.43
July	20197.00	34	2064.62
Aug.	227540.00	34	6992.35
Sept.	160817.00	39	4123.51
Oct.	385862.00	39	9893.90
Nov.	260836.00	39	6688.10
Dec.	307284.00	39	7879.08
<u>1989</u>			
Jan.	881386.00	44	20031.50
Feb.	618645.00	44	14060.11
Mar.	227709.00	44	5175.20
Apr.	75267.00	65	1157.95
May	244284.00	65	3758.22
Jun.	115665.00	65	1779.46
Total Le Sales		=	623410.96
Total Dollar Sales		=	176379.48

COMPARATIVE STATEMENT REPRESENTING INSTITUTIONAL, FINANCIAL AND
OPERATIONAL ACHIEVEMENTS DURING 1987-88 AND 1988-89
FINANCIAL YEAR.

SHENGE CENTRAL CO-OPERATIVE SOCIETY, SHENGE

<u>Institutional Achievements:</u>	Figure As at <u>30-6-88</u>	Figure As at <u>30-6-89</u>
Number of functional Societies	9	10
Membership, (N°.of persons)	580	687
New enrolment of members	22	107
Number of member educated	15	381
Training of Central Management Staff	-	2
Training of Primary Management Staff	20	20
<u>Financial Achievements:</u>		
Share Capital (accumulated total	Le 222,440	Le. 462,013
Collection of Savings	77,215	139,373
Average saving per member	384	673
Worth of total assets	485,590	782,973
Volume of working capital	390,500	667,000
Earnings, No surplus	87,537	175,050
Dividend declared	44,102	93,785
<u>Operational Achievements:</u>		
Procurement & distribution of fuel	Glns. 11,700	14,400
Handling loss, fuel distribution	9%	5.8%
Procurement and distribution of consumer inputs (Rice, Sugar, Flour etc.)	kg. 500	7,200
Handling loss, Input distribution	-	1%
Disbursement of loan members	Le 80,000	140,000
Rate of Recovery, Loan	81%	96.2%

ORGANOGRAMME FOR SUSTAINABILITY



NON MANPOWER
SOURCE OF FINANCE
+ OVERNMENT
* SIL/82/015
(*) DANIDA
(*) CDF

- A. = Area of responsibility for the DANIDA project - various areas to be divested to government departments other than fisheries
- B. = Areas which will be responsibility of fisheries of MANR+F management from now until after project
- C. = Areas for divestment which will be critical for achieving sustainability of the new development objectives

NUMERICAL TRENDS OF SELECTED PARAMETERS

	1981	1985	1986	1987	1988
TOTAL POPULATION	5483	6946	7214	7634	8141
FISHERMEN (Full time and Part time)	1320	1093	1218	1773	1804
FISH PROCESSORS (Full time and Part time)	-	-	1021	1314	1334
TOTAL FISHING NETS	-	366	444	469	500
Drift Nets	-	163	170	220	217
Set Nets/Shark Nets	-	62	130	99	129
Ring Nets	-	30	30	33	34
Cast Nets	-	52	58	40	45
Beach Seine Nets	-	16	20	19	21
Molot Draw Chain Nets	-	43	36	58	51
Others	-	-	-	-	3
HOOK AND LINE (Hand line)	-	54	62	90	97
LONG LINES	-	37	25	31	17

- NO DATA AVAILABLE

NUMERICAL TRENDS OF SELECTED PARAMETERS

Summary Table 1B.

	1981	1985	1986	1987	1988
TOTAL FISHING BOATS	-	333	348	361	370
STD 1-3 Dugout	-	155	160	180	165
STD 3-5 Dugout	-	51	62	48	64
STD 3-5 Plank	-	87	94	99	107
Ghana Boats	-	40	32	34	34
OUTBOARD ENGINES	73	41	53	47	56
BANDA HOUSES	-	427	447	450	474
TRANSPORT BOAT (Pampas)	-	5	9	8	11
ARTICLES (Fullah) SHOPS	-	36	34	40	41
SLEEPING HOUSES	-	809	851	862	912
TRANSISTOR RADIOS	-	164	229	328	412

- NO DATA AVAILABLE

Appendix 13.NOTE DE SYNTHESE SUR L'EXECUTION DU PROJET DE DEVELOPPEMENT
DE LA PECHE ARTISANALE DE LA PETITE COTE - SENEGAL.I - HISTORIQUE ET SITUATION DE LA PERIODE DE REFERENCE

L'idée de la création du Projet de Développement de la Pêche Artisanale de la Petite Côte date de 1981.

La pêche artisanale maritime malgré la place importante qu'elle occupe dans l'économie sénégalaise et parce qu'elle recèle d'un riche potentiel halieutique grâce à des conditions océanographiques favorables, était confrontée à des difficultés pour son exploitation optimale.

Le gouvernement du Sénégal, conscient de ces problèmes a soumis à la Banque Africaine de Développement un projet d'assistance à la pêche artisanale au Sénégal.

L'idée a été acceptée par la Banque qui a demandé l'approfondissement des études pour asseoir un Projet viable.

L'étude a été confiée au centre d'Investissement de la FAO.

Au terme de cette étude, la zone maritime comprise entre les départements de Rufisque et M'Bour, correspondant à la petite côte a été retenue comme zone d'intervention du projet.

II - IMPORTANCE DE LA PECHE ARTISANALE DANS LA ZONE DU PROJET1°/ Production

La pêche maritime sénégalaise débarque en moyenne 300.000 tonnes de poissons annuellement.

La pêche artisanale contribue avec quelques 200.000 tonnes pour 66 % des prises totales dont 70 % de poissons pélagiques.

La zone d'intervention du projet qui couvre deux départements (Rufisque et M'Bour) qui débarquent les tonnages les plus importants de toutes les pêcheries du pays produit annuellement près de 100.000 tonnes de poissons soit environ 50 % de la pêche artisanale sénégalaise.

Cette production est le résultat de l'effort de quelques 8.500 pêcheurs utilisant un millier de pirogues motorisées à 80 %.

2°/ Potentialités de la zone

Le potentiel des ressources exploitables dans la zone du projet peut être estimé à 143.000 tonnes de poissons pélagiques et démersaux par an.

L'intensité de l'activité des pêcheurs, particulièrement en ce qui concerne les filets maillants permet une prise moyenne annuelle de 75.000 tonnes de pélagiques.

Le potentiel des ressources démersales côtières pour les espèces actuellement commercialisées peu être estimé à 2.500 tonnes/an.

L'intérêt actuel porté sur certaines espèces naguère non exploitées tels que les poolpes augmente de fait le potentiel des ressources économiques exploitables.

III - RAISONS OBJECTIVES AYANT PRESIDE A LA CREATION DU PROJET

Malgré les potentialités socio-économiques de la petite côte, la pêche artisanale ne fait pas l'objet d'une exploitation optimale des ressources. Cette situation est la résultante :

- d'une stagnation, voire une regression du parc piroguier et des équipements de pêche, par manque de moyens financiers des pêcheurs pour l'acquisition et/ou le renouvellement du matériel ;
- de l'inexistence de structures d'assistance favorisant l'effort d'équipement par l'assouplissement des conditions et modalités d'accès à l'investissement ;
- l'inorganisation du réseau de distribution des produits et l'insuffisance voire l'inexistence d'infrastructures permettant d'améliorer la qualité commerciale des produits mis en marché de la capture à la consommation et de réduire les pertes post-capture.

IV - LE PROJET

Le Projet de développement de la Pêche Artisanale de la Petite Côte vise comme finalité de résorber les difficultés évoqués plus haut.

A cet égard il se veut un instrument d'assistance et de promotion des différents opérateurs économiques dans l'optique d'un développement intégral et intégré de l'ensemble des filières productives, économiquement viables existant dans la zone d'intervention.

A - NATURE ET OBJET

1) Description

Le projet consiste à :

- la création de trois centres de pêche à Joal, M'Bour (M'Balling) et à Rufisque ;
- la mise à la disposition des professionnels du sous-secteur d'une ligne de crédit pour l'acquisition d'équipements et de matériels de production, conservation et de commercialisation ;
- l'étude et la conception de prototypes de pirogues améliorées.

2) Objectifs du projet (initiaux)

Le projet vise principalement au plan général, l'approvisionnement du marché intérieur du pays en poisson de mer accessible à toutes les couches sociales de la population grâce à la capture additionnelle de 24.500 tonnes de poissons par an (pélagiques et démersaux).

Sur le plan opérationnel il se donne comme objectifs l'équipement des différents opérateurs économiques, pêcheurs, maréyeurs et charpentiers à partir de la ligne de crédit.

Cet équipement devait porter sur :

. Pirogues, Moteurs et Engins de pêche

.. Sennes tournantes	100
.. Moteurs hors bord	100
.. Moteurs in-board	35
.. Pirogues traditionnelles	80
.. Pirogues améliorées	30
.. Pirogues modernes	25

. Véhicules de transport (maréyeurs)

.. 3 tonnes (isotherme)	15
.. 5 tonnes (frigorifique)	35

. Fabrique de glace 2

. Equipement de menuiserie (charpentiers) 3 (bases)

3) But du projet

Avec la réalisation des infrastructures de débarquement conditionnement et conservation du poisson, l'acquisition de moyens de transport, le projet vise à :

- améliorer la qualité du produit commercialisé ;
- étendre le réseau actuel de distribution du poisson frais ;
- moraliser les prix aux consommateurs ;
- résorber les pertes post-capture pendant les périodes de surproduction ;
- réguler le marché du poisson grâce à l'augmentation des capacités de stockage ;
- garantir aux pêcheurs et aux mareyeurs des revenus satisfaisants et réguliers permettant une rétribution excédentaire des charges d'exploitation.

4) Coût du projet

Le financement du projet est assuré par deux ressources :

- . Le prêt FAD de 6,750 millions d'unités de compte soit 2.565 milliards de francs CFA.
- . La contrepartie du gouvernement du Sénégal pour un montant de 482 millions de francs CFA ; soit un montant global de financement de trois milliards de francs CFA.

5) Durée du projet

L'exécution du projet est échelonnée sur une période de quatre ans. Le démarrage effectif est intervenu pendant l'année 1988, par la préparation des dossiers d'appel d'offres pour les études et les aménagements, le démarrage de la ligne de crédit, rétrocédée à la Caisse Nationale du Crédit Agricole.

Les travaux d'aménagement des centres de pêche doivent intervenir dans le courant de la deuxième année de vie du projet.

B - ROLE DU PROJET

1°/ Liens avec d'autres projets

De part sa nature et son objet, le projet de développement de la pêche artisanale de la petite côte vient en appui et/ou étend l'action d'autres projets initiés dans le sous-secteur de la pêche artisanale, tant sur le plan de l'orientation de la politique générale de développement économique et sociale que sur le plan du développement sectoriel de la branche.

C'est ainsi qu'il contribue :

1.1. au plan de la nouvelle politique économique et sociale : à la promotion et au développement de l'emploi non salarié par l'insertion en plus des opérateurs économiques principaux (pêcheurs, mareyeurs), des jeunes et des femmes.

1.2. Projet de motorisation des pirogues (CAMP)
Il prolonge et renforce les actions entreprises dans ce domaine en mettant à la disposition des producteurs une gamme plus complète de matériel de production.

1.3. Projet de commercialisation des produits de la pêche (SERAS : ex CAPAS)
La lourdeur des investissements en infrastructures et l'inadéquation du système organisationnel n'ont pas permis d'atteindre de manière satisfaisante les objectifs de rentabilité (surtout financière).

En s'appuyant sur une organisation plus légère des professionnels (mareyeurs individuels et/ou GIE de mareyeurs), le projet vise à améliorer le système de commercialisation et de distribution, sans divorcer de manière fondamentale avec les pratiques commerciales traditionnellement admises dans la profession.

1.4. Projet PROPECHE (ATEPAS : Amélioration des Techniques et Engin de pêche Artisanale)

Il contribue dans ce cadre à l'amélioration des pirogues traditionnelles (résistance, stabilité, conditions de travail, coût etc...) de même que l'amélioration des techniques et procédés de transformation artisanale du poisson (fumage, salage, séchage) par l'introduction de moyens améliorés de production.

2°/ Place du projet dans le sous-secteur

Les avantages du projet sont de plusieurs ordres :

2.1. Sur le plan technique

Il améliore les infrastructures portuaires et les embarcations de pêche, permettant ainsi un accroissement de la productivité tout en améliorant les conditions de travail et d'hygiène;

2.2. Au plan socio-économique

Il devra contribuer de manière appréciable à l'approvisionnement en poisson frais des centres de consommation

de l'intérieur du pays.

Le projet devra à terme procurer une activité permanente directe à environ :

- . 2.700 pêcheurs artisans
- . 490 pêcheurs armateurs
- . 50 mareyeurs
- . 50 chauffeurs
- . 18 menuisiers charpentiers

Soit : 3.308 personnes.

2.3. Au plan financier

Le revenu moyen prévisionnel des pêcheurs utilisant les pirogues améliorées est estimé à 600.000 francs par an contre 300.000 francs pour les pirogues traditionnelles soit un gain additionnel supérieur de 50 %.

Cet accroissement net de revenus par la pirogue améliorée s'explique du fait que la consommation de carburant est plus faible.

Le coût de la pirogue est également réduit à cause de l'économie réalisée sur le bois.

2.4. Au plan culturel

Le transfert des activités de la pêche et de la transformation artisanale sur les sites appropriées et l'installation d'équipements améliorant les conditions de travail facilitera la bonne intégration pêche/tourisme.

V - EXECUTION DU PROJET

L'évaluation du projet a été effectuée en Novembre 1984 et l'accord de prêt signé en Avril 1986.

Le démarrage effectif du projet n'est intervenu cependant qu'en 1988 ; par suite des lenteurs administratives liées à la satisfaction des conditions préalables d'entrée en vigueur du prêt FAD.

Ce démarrage a été possible grâce à la mobilisation d'une partie des fonds de la contrepartie du Sénégal qui a permis l'implantation de la cellule d'exécution et le démarrage du volet crédit.

1°/ Actions entreprises

1.1. Au plan conceptuel

Elles ont trait de prime abord à la satisfaction des conditions préalables pour l'entrée en vigueur du prêt FAD qui a été effectif le 29 Avril 1988.

Parallèlement à ces démarches administratives des actions d'ordre organisationnel et opérationnel ont été entreprises notamment :

- . l'étude et la confection des cahiers de charges des dossiers d'appel d'offres pour la réalisation des infrastructures :

- . l'organisation et la constitution des structures de base (GIE) devant bénéficier de l'assistance du projet.

1.2.1. Information et assistance

La première série des actions menées a consisté à faire une large diffusion auprès des opérateurs économiques concernés de la mise en place du projet, de son contenu et de ses objectifs.

S'agissant du volet crédit des précisions ont été apportées sur les modalités et les conditions d'octroi des prêts.

En outre, une assistance a été apportée aux groupes d'opérateurs pour leur constitution en groupements d'intérêt économique de même que l'administration et la gestion de leurs organismes.

Par ailleurs, une cotation de prix demandée par le projet a permis aux différentes catégories professionnelles de bénéficier d'une gamme plus complète de matériel et à des prix avantageux, auprès des fournisseurs nationaux.

En retour, le contact permanent avec les différentes structures de base a permis de recueillir leurs doléances et suggestions, à partir desquelles a pu se faire un réajustement du projet adapté aux réalités socio-économiques de la pêche artisanale.

Une concertation permanente et un bon esprit de collaboration se sont instaurés entre le projet et la caisse Nationale du Crédit Agricole dans le cadre de la définition des modalités et conditions de financement compatibles avec les possibilités des opérateurs ciblés.

Pour l'encadrement technique, il a été possible :

- . de mettre en place un système d'informations fiables permettant d'évaluer les dossiers soumis au financement du projet ;
- . d'identifier de façon formelle tous les demandeurs de prêt et d'avoir une connaissance précise de leur situation patrimoniale et de leur engagements.

Le projet joue ainsi le rôle de relais entre les différents partenaires institutionnels et les collectivités de base. Les effets de feed-back enregistrés de part et d'autre ont permis des ajustements nécessaires à l'instauration d'un climat de confiance et partant un fonctionnement satisfaisant des groupements.

1.2.2. Réalisations

Elles sont essentiellement faites dans le cadre de l'exécution de la composante "Ligne de crédit à l'équipement"

. Au plan financier

Au 30 Septembre 1989, les prêts consolidés accordés se chiffrent à 200 millions de francs pour un investissement global de 254 millions de francs.

Les prêts ont été accordés à 41 GIE dont 1 de mareyeurs, 40 de pêcheurs et 3 mareyeurs individuels.

Six cent (600) personnes ont pu ainsi bénéficier du concours financier du projet.

Au plan physique

Les équipements acquis portent sur :

- 484 moteurs hors bord
 - 1.224 nappes de filets
 - 4 camions frigorifiques
 - 1.150 bacs de conditionnement
- et divers matériel de gréement pour un montant global de 8 millions de francs.

Au plan organisationnel

Au démarrage du projet il n'existait que 30 GIE dans sa zone d'intervention. Le nombre s'est accru rapidement pour atteindre 86 dans l'intervalle d'une année sous l'impulsion du projet, répartis comme suit :

<u>Activités</u>	<u>Nbre</u>	<u>Adhérents</u>	<u>Nouvelles créations</u>
Pêche	71	1.142	dont 56 : 684 Adhérents
Mareyage	7	30	7 : 30
Transformation	8	587	6 : 167
Total	86	2.029	69 891

2.3. Impact

- Emplois

Les équipements ont permis de rendre opérationnelles 370 unités de pêche et procuré une activité permanente à quelques 3.000 pêcheurs, 4 chauffeurs et autant d'aides pour les opérations de commercialisation.

Les emplois indirects sont difficilement quantifiables et sont liés à toutes les activités en amont et en aval de la production.

Pour l'ensemble de ces activités, on peut estimer à 1.500 les emplois indirects.

- Production

Le tonnage additionnel débarqué par les unités opérationnelles grâce à l'intervention du projet est estimé à 16.500 tonnes de poissons dont 70 % de pélagiques.

La valeur commerciale de cette production est estimée à la débarque à 2,8 milliards de francs CFA.

- Revenus

Les revenus moyens annuels sont évalués respectivement pour les pêcheurs et les armateurs, à 600.000 et 3 millions de francs toutes activités de pêche confondues:

- Consommation

On peut estimer à 12.600 tonnes le volume additionnel de poisson distribué dans les centres semis urbains et ruraux et à 600 tonnes les espèces d'exportation livrées aux usines de transformation.

Cet accroissement de la consommation est plus ressenti dans les zones semis urbaines et rurales qui sont les exutoires naturels des surplus de production.

2°/ Difficultés rencontrées

Elles ont trait à :

- la lenteur des procédures administratives relatives à la satisfaction des conditions préalables pour l'entrée en vigueur du prêt PAD et le décaissement des fonds.

Ce retard dans la mise en oeuvre du projet a entraîné la modification de quelques composantes initiales du projet rendues caduques par l'évolution du contexte du sous-secteur de la pêche artisanale et la planification du calendrier d'exécution.

Les résultats enregistrés dénotent une faiblesse des demandes de crédits ce, en rapport avec l'enveloppe des ressources financières disponibles.

Cette situation s'explique par :

- une faible implication de quelques catégories d'opérateurs économiques tels que les mareyeurs et les charpentiers ;
- le peu de disponibilité d'épargne pour l'autofinancement de l'apport initial requis, lié au caractère fluctuant de l'activité de la pêche et qui influe sur les variables commandant la décision d'investissement ;
- la nature des investissements réalisés où prédominent les achats de moteurs hors bord et une faible demande de pirogue et de filets.

Cette situation indique à priori que les investissements réalisés sont plus des investissements de renouvellement que d'expansion et qu'à cet égard, la performance du volet crédit doit être appréciée sur une longue période.

- la structure des organismes de base (GIE) du fait de leurs effectifs pléthoriques n'est pas toujours adaptée pour une utilisation optimale de la ligne de crédit du fait du plafond d'encours autorisé.

- la difficulté d'instaurer un système de gestion adéquat, à cause de la multiplication des demandes de prêt sur une courte période, conséquence des effectifs pléthoriques.

Il s'en suit corrolairement :

- . l'impossibilité d'une planification fiable des besoins d'équipement ;
- . le suivi fastidieux du portefeuille d'endettement.

3°/ Mesures correctives

L'évolution récente du sous-secteur de la pêche artisanale a rendu caduques certaines options initiales du projet notamment :

- l'acquisition des sennes tournantes qui avaient été privilégiée et dont la rentabilité actuelle a une tendance à la baisse.
- la construction des pirogues modernes dont le coût est très élevé, les performances techniques et financières non encore confirmées de façon certaine.
- le volet renforcement des satellites de motorisation qui était une sous composante de la base du projet dont la gestion alourdirait le fonctionnement de la cellule d'exécution du projet.

En outre, l'analyse des résultats de la première année de fonctionnement et une meilleure maîtrise des données socio-économiques ont identifié des besoins nouveaux qui commandent l'adoption d'une nouvelle stratégie, qui tienne compte des

perspectives d'évolution à court et moyen terme.

C'est ainsi que l'orientation et les objectifs initiaux du projet ont été modifiés et réajustés comme suit :

a) Orientation :

Privilégier les autres formes de pêche autre que la senne tournante, à faible intensité de capital et à rendement satisfaisant (ligne glacière, filet maillant dormant et encerclant).

- Permettre aux mareyeurs d'acquérir des véhicules frigorifiques et isothermes d'occasion techniquement fonctionnels, ce à cause du coût élevé des véhicules neufs.
- Etendre la ligne de crédit à d'autres activités telles que:
 - . l'industrie de transformation artisanale
 - . la maintenance et la réparation des moteurs.

b) Objectifs (réajustés)

En plus de la création des centres de pêche et la réalisation des fabriques de glace, il est prévu l'équipement de :

- 100 unités de pêche en matériel complet (pirogue, moteur, (filet)
- 655 unités de pêche en matériel complémentaire
- 50 véhicules de transport (frigorifiques et isothermes)
- 3 bases de menuiseries pour la construction des pirogues améliorées
- des GIE de mécaniciens de moteurs en outillages et pièces détachées
- des artisans de la transformation artisanale en moyens de production améliorés
- concernant la production, l'augmentation de l'armement et conséquemment de l'effort de pêche devrait permettre toutes choses égales par ailleurs de réaliser une production additionnelle de 74.000 tonnes / an à partir de la quatrième année.

VI PERSPECTIVES

Elles consistent à moyen terme d'étendre la zone d'intervention du projet sur l'ensemble de la zone naturelle de la petite-côte.

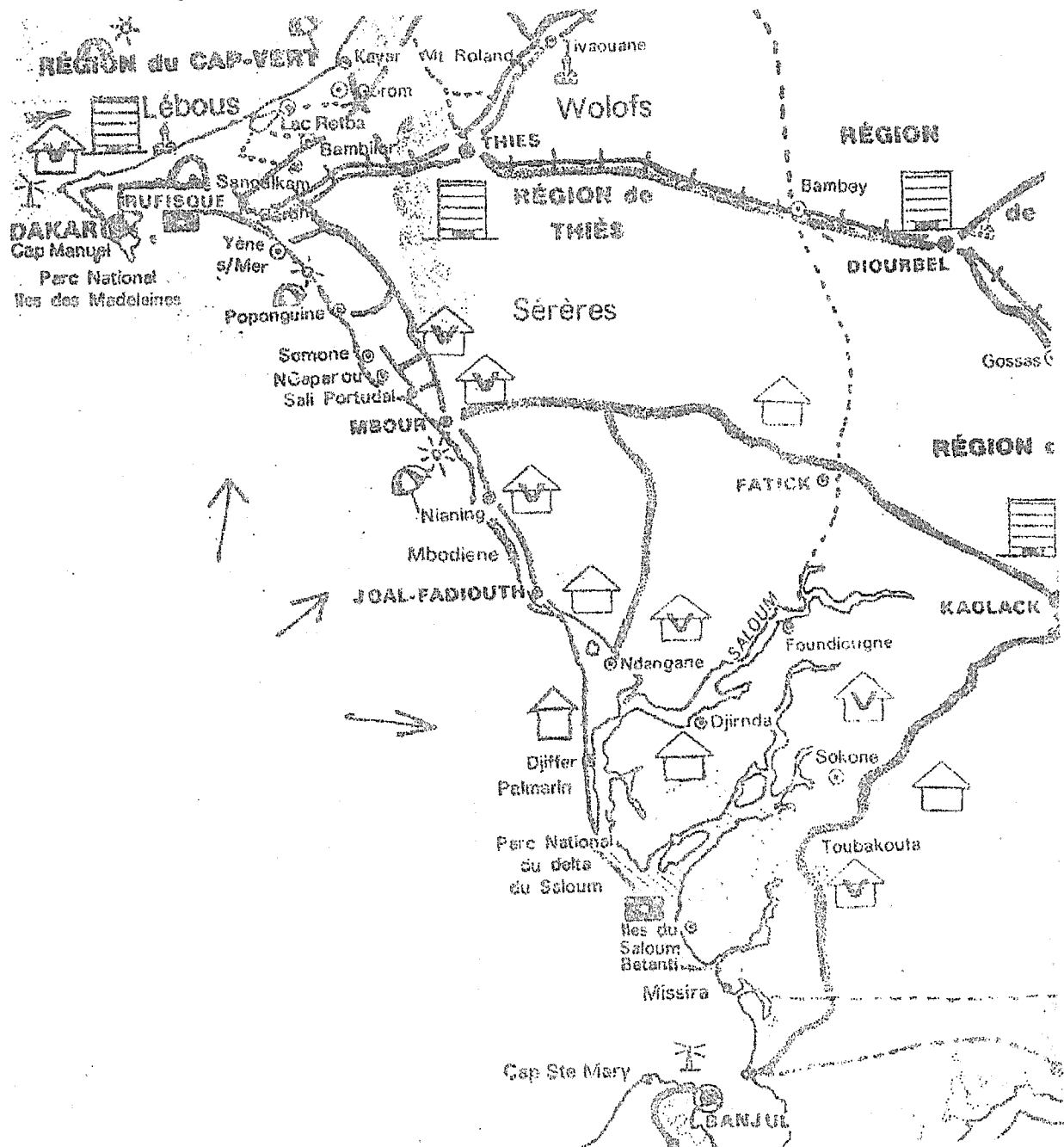
La limitation de la zone actuelle d'intervention du projet crée des déséquilibres dans les possibilités d'équipement offertes à l'intérieur d'une zone homogène.

Cette dichotomie au sein d'une même zone crée auprès des opérateurs un sentiment de discrimination, d'autant plus ressenti qu'il n'y existe aucune autre structure offrant des possibilités d'équipement aussi avantageuses que celles du projet.

La possibilité d'infiltration d'opérateurs économiques des localités non couvertes par le projet dans les groupements encadrés peut engendrer des difficultés pour une gestion saine et rigoureuse de la ligne de crédit.

Cette nouvelle stratégie consistant à l'extension de la zone d'intervention du projet et de la gamme des activités pouvant être financées permettra de corriger les disparités au sein d'une zone homogène.

En outre, elle contribuera à rendre le projet plus opérationnel et en adéquation avec sa finalité qui consiste à promouvoir un développement intégral et intégré de l'ensemble des filières de la pêche artisanale dans sa zone d'intervention.



Senegal, Petite Côte : Dakar/Rufisque - Djiffé/Saloum

Appendix 14.BREVE RESUMO SOBRE O DESENVOLVIMENTO DE PESCA
ARTESANAL EM S. TOMÉ E PRÍNCIPEINTRODUÇÃO

Ào elaborarmos um relatório analítico sobre o desenvolvimento de Pesca Artesanal em São Tomé e Príncipe, seria imprescindível fazê-lo recuando um pouco no tempo de forma a que fosse mais elucidativo.

Mas entretando, recordemos que a pesca artesanal no período colonial era considerada deformada, atendendo a maneira como ela processava-se.

Contudo devemos sublinhar que no referido período, a pesca artesanal não obstante a sua desorganização, muito contribuiu para o suficiente abastecimento do povo Santomense de pescado.

No período pos independência, mercê do esforço do Governo Santomense através de cooperação com países amigos e instituições internacionais, a pesca artesanal ressalta mais a visita tendo em conta a forma e a dimensão que assumiu.

E neste contexto que apresentaremos dados mais circunstanciados sobre o assunto.

DESENVOLVIMENTO

Inserido no programa de Ajustamento Estrutural, introduzido pelo Governo Santomense com o fim de recuperar a economia do País, no ano de 1986, a pesca artesanal conhece o seu primeiro passo através do concours dos parceiros já envolvidos e outros possíveis de serem mobilizados para o mesmo efeito.

Com efeito, neste mesmo ano, chegou ao País, um enorme lote de materiais e equipamentos de pesca que sem duvida teve um impacto muito grande não só na pesca artesanal como em todo o país. Estes materiais e equipamentos foram financiados por um dom Japonês e por um crédito do FIDA num total de mais de Quatro Milhões de Dolares, sem considerar a ajuda de algumas Organizações Não Governamentais em que se destaca a MISERIOR.

No quadro do financiamento FIDA, foi instalada uma assistência técnica que cobriu varios campos de actividades.

ASPECTO ECONOMICO-FINANCEIRO

Prevendo-se de que o Sector de Pesca Artesanal viria a ocupar-se com o futuro abastecimento das populações de São Tomé e Príncipe em pescado, o Governo Santomense encetou negociações junto do FIDA (FUNDO INTERNACIONAL DE DESENVOLVIMENTO AGRICOLA), tendo conseguido um financiamento de USD 2.100.000 (DOIS MILHÕES E CEM DOLARES) em 1984.

Anos depois na corrente de boas relações de cooperação, o Governo japonês pôs a disposição do Governo Santomense em termos de donativos, o montante de 432.346000 Yens (QUATROCENTOS E TRINTA E DOIS MILHÕES, TREZENTOS E QUARENTA E SEIS MIL YENS JAPONES) em materiais e apetrechos de pesca, viaturas, embarções, ferramentas para oficina, etc.

Mobilizou-se igualmente recursos financeiros junto ao Governo Canadiense (USD 49.500) para a construção de centros comunitarios em Santa Catarina e no Príncipe, assim como adquiriu-se 500 chapas de zinco destinadas a rectificação de algumas coberturas das casas dos pescadores do Príncipe.

Esse grande apoio a Pesca Artesanal proporcionou um assunto de produção na ordem de 75 %.

PERSPECTIVAS PARA OS PROXIMOS ANOS

No âmbito das perspectivas, estimamos necessario que a segunda fase do desenvolvimento de pesca artesanal, deve ser dotada de uma concepção científica totalmente diferente em relação a primeira.

Assim que no nosso entender, deve-se elaborar projectos visando o desenvolvimento integrado das comunidades dos pescadores. Nestes projectos, deve-se equacionar antes de tudo, os meios e as técnicas de modo a aumentar o indice de captura de cada pescador.

Achamos também necessario perspectivar a evolução das embarções de (canoa) que poderão permitir que os pescadores artesanais possam tirar melhor partido dos recursos haliêuticos dos pais e inclusive possam habilitar-se a pescar no Continente, mais precisamente nas ZEEs dos países com os quais São Tomé e Príncipe vier a estabelecer acordos de pesca.

Outros aspectos que julgamos que devem ser abordados nesses projectos, são a conservação e comercialização do pescado, enquanto a problemáticas alimentar da comunidade (Introdução e Desenvolvimento de agricultura) e melhoria das condições sociais, prestando uma atenção particular ao aumento do nível de

escolaridade dos pescadores (trabalhar fundamentalmente com os mais jovens e as crianças).

Para a implementação destes projectos, achamos que se deve mobilizar financiamentos não reembolsáveis e assistência técnica das ONG's e dos países interessados a participar neste programa, tendo em conta a situação actual da economia do nosso País.

Devido a estas acções, nestes últimos anos, foram instaladas Associações de Pescadores em quase todos Distritos (Praias de maiores aglomerados) do País a saber :

- Neves
- Santa Catarina
- Ribeira Afonso
- Angolares
- Praia Melão
- Príncipe
- Praia Cruz
- Praia Gambôa

No que concerne a quantidade de canoas, deve-se mencionar a existência de 1515 a remo e 1228 a motor.

Quanto à Centros Comunitários, é de rezaçar que ainda se encontram na fase embrionária, dado que até ao momento apenas o de Santa Catarina encontra-se concluído e o do Príncipe na fase inicial.

A pesca artesanal hoje poder-se-á considerar como subsector mais importante do País que ocupa cerca de 2.132 pescadores conforme abaixo se descremina :

- Praia Cidade capital.....	250	Pescadores
- Praia de Pantufo.....	120	Pescadores
- Praia Melão.....	300	Pescadores
- Praia Santana.....	210	Pescadores
- Praia de Ribeira Afonso.....	115	Pescadores
- Praia de Angolares.....	100	Pescadores
- Praia Novo Brasil.....	180	Pescadores
- Praia Santa Catarina.....	130	Pescadores
- Praia de Neves.....	112	Pescadores
- Praia Morro Peixe.....	70	Pescadores
- Praia Micoló.....	80	Pescadores
- Praia Cruz.....	75	Pescadores
- Praia Gambôa.....	90	Pescadores

TOTAL..... 2.132

NECESSIDADES DO PROJECTO

- Adquirir um laboratório que visa a recolha e processamento de factores bióticos e abióticos, bem como dados estatísticos;
- descongelamento do fundo de contrapartida do projecto

que se encontra sob a responsabilidade do B.N.S.T.P., o que em certas ocasiões, contribui para o retardamento das Sector. à níveis técnicos e organizacional.

CONCLUSÕES

Tal como fizemos referência na breve nota introdutória, a Pesca Artesanal no período pré-independência nacional, era um sub-sector deformado, fruto de desatenção de que fora vítima, com o intuito de desnutrir o povo deste arquipélago em proteína animal.

Actualmente, fruto de esforço bem desenvolvido pelo Governo Santomense, a pesca artesanal conquistou um lugar no processo de desenvolvimento socio-económico do país.

Assim podemos categoricamente afirmar que a pesca artesanal conheceu um salto quantitativo e qualitativo, não obstante existir ainda pequenas dificuldades, como o racionamento de combustível e falta de peças sobressalentes para os motores.

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